Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments

2020 edition
Foreword

The overall purpose of this handbook is to provide methodological and practical guidance for compiling and disseminating statistics to measure cross-border economic activities related to sea and air transport.

International organisations and EU Member States have for many years recognised the need for detailed guidance on compiling high-quality statistics on sea and air transport services, and have sought a better understanding of how these industries function. This handbook meets the requirements of data compilers, covering statistical challenges such as how to record the operations of multi-territory enterprises, how to identify economic ownership, the role of special purposes vehicles that own vessels or aircraft, and how to document the economic activities of entities such as ship management companies, ship operators, and aircraft leasing and aircraft management companies.

In 2016, Eurostat’s balance of payments team started consulting experts in ship management and ship financing in order to increase the understanding of shipping business models and infrastructure. A first version of this handbook was based on mission reports and minutes from these consultations. In December 2017, Eurostat set up a designated task force (Task force on the recording and compilation of maritime transactions in national accounts and balance of payments) under the auspices of the Balance of Payments Working Group. The task force was mandated to focus on shipping. End 2018, and in response to user requests, the mandate of the task force was extended to aviation services. The history of this handbook and the initial focus of the task force explain the emphasis us on shipping. There is however no distinction in the statistical implications of economic and legal ownership of vessels on the one hand and aircraft on the other hand.

The handbook starts by documenting the available methodological guidance, and then goes on to describe the management structures of traditional sea transport companies, different type of contracts and business relations, and how to identify economic ownership.

The following chapters present practical examples of the statistical treatment of maritime activities and the use of data sources. There is also a comprehensive focus on the air transport industry and a specific chapter on the impact of macroeconomic statistics of IFRS 16 on leases. Finally, the handbook sets out no less than 10 country case studies and has a chapter that summarises the recommendations.

The handbook does not cover freight and passenger statistics issues.

The handbook is the result of the work of the dedicated taskforce that started in 2017, focusing on sea transport, and whose scope was extended in 2019 to cover air transport services and to analyse the recording of leases in both business and national accounts.

I would like to thank the Eurostat team, all taskforce members from countries and international organisations and the authors that contributed to this handbook. We hope that you find it useful in your efforts to compile high-quality statistics and to inform your decision-making, and we wish you an enjoyable reading experience.

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Head of Unit C5: Integrated Global Accounts and Balance of Payments
Acknowledgements

This handbook was initiated by Iliyana Savova (Eurostat) who began by consulting experts in finance and ship management to better understand the reasoning behind sea transport services. It is the result of the joint work carried out by the members of the taskforce on the compilation of statistics on sea and air transport in national accounts and balance of payments statistics: Matthias Ludwig (chair, Eurostat), Ferdinando Biscosi (Eurostat), Valdone Kasperiuniene (Eurostat), Peter Pospisil (Eurostat), Iliyana Savova (Eurostat), Kim Janssens (National Bank of Belgium), Maria José Alvarez Pelaye (Statistics Denmark), Orla McCarthy (Central Statistics Office Ireland), Marios Papaspyrou (Bank of Greece), Athanasios Petralias (Bank of Greece), Anastasia Katsika (Hellenic Statistical Authority), Eleni Pandi (Hellenic Statistical Authority), Theano Profi (Hellenic Statistical Authority), Miriam Tagliavia (Banca d’Italia), Paolo Forestieri (ISTAT, Italy), Vasilis Chailos (Statistical Service of Cyprus), Eleni Nicolaou (Central Bank of Cyprus), Robert Michaux (STATEC, Luxembourg), Christine Schneider (STATEC, Luxembourg), Lara Frigieri Cordina (National Statistics Office Malta), Leo Hiemstra (CBS — Statistics Netherlands), Natalie Jefferies (Office for National Statistics — ONS), Ross McKenzie (ONS), Rob Pennington (ONS), Ingibjorg Sigthorsdottir (Hagstofa — Iceland), Mats Kristoffersen (Statistics Norway) and Andrei Justin Mihailescu (European Central Bank).

Aurelija Gylyte, Shubila Balalie and Peter Pospisil (Eurostat) led the work on methodological issues associated with the impact on macroeconomic statistics of IFRS 16 on leases, and conducted a general consultation of accounting and air transport experts. They furthermore developed a proposal on how to prepare statistical estimates under the new accounting standards so that they follow the terms of the ESA 2010 and the BPM6.

Each chapter was drafted by a lead author and subsequently reviewed by the taskforce members. For the case studies, contributors have shared their knowledge and lessons on how to respond to the statistical challenges in compiling data on sea and air transport. The lead authors were Iliyana Savova (Eurostat), Orla McCarthy (Central Statistics Office Ireland), Maria José Alvarez Pelaye (Statistics Denmark), Marios Papaspyrou (Bank of Greece), Athanasios Petralias (Bank of Greece), Eleni Pandi (Hellenic Statistical Authority), Miriam Tagliavia (Banca d’Italia), Paolo Forestieri (ISTAT, Italy), Vasilis Chailos (Statistical Service of Cyprus), Eleni Nicolaou (Central Bank of Cyprus), Robert Michaux (STATEC), Christine Schneider (STATEC), Natalie Jefferies (Office for National Statistics — ONS), Ross McKenzie (ONS), Ingibjorg Sigthorsdottir (Hagstofa — Iceland), Mats Kristoffersen (Statistics Norway) and Andrei Justin Mihailescu (European Central Bank).

We thank them for their willingness to contribute to the handbook and to have their work comprehensively reviewed by fellow taskforce members and experts, as well as during consultations of the BOP working group, the NA working group, the ITGS steering group, ITGS Compilation and Quality working group, ITGS Methods working group and Eurostat management. This is a testament to their commitment.

The following experts took part in taskforce meetings and provided valuable input for individual chapters: Konstantinos Antonopoulos (Union of Greek Ship Owners — UGS), Angelos Athanasopoulos (Union of Greek Ship Owners — UGS), Alexander W. Barg (Advokatfirmaet Ræder AS), Bjørn Bodding (Clarksons Platou Norway Offshore Research), Hans Nicolai Edbo (Norwegian Shipbrokers Association), Thomas Whyte Gaardsø (PricewaterhouseCoopers AS), Alex Gray (IHS Markit), Rezaul Hoque (Lloyd’s List Intelligence), Thomas Kazakos (Cyprus Shipping Chamber), Kyrre W. Kieland (Advokatfirmaet Ræder AS), Jan Kjaervik (A.P. Møller – Maersk A/S), Tom Lay (Australian Bureau of Statistics), Fredrik Melle (PricewaterhouseCoopers AS), Makis Mendoros (Intership Navigation Co. Ltd.), Antonis Papadopoulos (National Bank of Greece), Amund Dronen Ringdal (Rederi), Sverre Bjørn Svenning (Fearnleys AS), Theophanis Theophanous (Bernhard Schulte Ship management — BSM — Hellas), Professor Ioannis Tzonannos (Athens University of Economic and Business; Former Secretary General, Ministry of Maritime and Insular Policy), Sebastian Otterstad Villyn (Lloyd’s List Intelligence), Daryl Williamson (Lloyd’s List Intelligence).

The handbook contains a number of useful examples and case studies. Most are from EU Member States (Belgium, Denmark, Ireland, Greece, Italy, Cyprus, Luxembourg and the United Kingdom), but cases from Norway and Iceland are also included to ensure a wider geographical scope and illustrate the international nature of work on the statistical compilation and recording of transactions related to sea and air transport.
The *handbook* has also greatly benefited from the many useful comments and suggestions made by national statistical offices, national central banks, international organisations and Eurostat colleagues, as well as by individual experts during worldwide consultations in July 2017 and February 2020 helped us to finalise this *handbook*. 
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## Contents

### 1. Introduction

1.1 Overview ................................................................. 17

1.2 Legal and methodological framework ................................. 18

1.2.1 Balance of payments statistical legal acts in the context of the European Statistical System ........................................ 18

1.2.2 Methodological guidelines and manuals ................................. 19

1.2.3 Relevant legislation for the purpose of this handbook ................................. 19

1.2.4 Analytical report ................................................................. 20

### 2. Methodological framework for the compilation of statistics on sea transport

2.1 Sea transport companies operating as multi-territory enterprises ........................................ 21

2.2 Establishing notional units for sea transport companies ................................. 22

2.3 Residency ................................................................. 28

2.4 Operator ................................................................. 31

2.5 Foreign direct investments relationship ........................................ 33

2.6 Recording of transactions related to sea transport ................................. 35

2.6.1 General considerations ................................................................. 35

2.6.2 Recording in ITGS and national accounts ........................................ 38

2.6.3 Recording in balance of payments statistics ........................................ 39

2.6.4 Stylized recording of voyage charter contracts ........................................ 39

2.6.5 Stylized recording of time charter contracts ........................................ 40

2.7 Data sources for the compilation of statistics on sea transport ........................................ 41

2.7.1 References in international guides ........................................ 41

2.7.2 List of suggested data sources that can be used for recording shipping transactions ........................................ 44

### 3. Institutional units providing sea and air transport

3.1 Introduction ................................................................. 46

3.2 Legal owner ................................................................. 46
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3 Economic owner</td>
<td>47</td>
</tr>
<tr>
<td>3.4 Operators</td>
<td>48</td>
</tr>
<tr>
<td>3.5 Ship management companies</td>
<td>48</td>
</tr>
<tr>
<td>3.6 Special Purpose Vehicles</td>
<td>49</td>
</tr>
<tr>
<td>3.6.1 Introduction</td>
<td>49</td>
</tr>
<tr>
<td>3.6.2 Distinction between asset and liability securitisation</td>
<td>50</td>
</tr>
<tr>
<td>3.6.3 Legal form</td>
<td>50</td>
</tr>
<tr>
<td>3.6.4 Governance</td>
<td>50</td>
</tr>
<tr>
<td>3.6.5 Main economic activities of special purpose vehicles</td>
<td>50</td>
</tr>
<tr>
<td>3.6.6 Examples of holding structures</td>
<td>51</td>
</tr>
<tr>
<td>3.7 Criteria to identify economic ownership</td>
<td>56</td>
</tr>
<tr>
<td>3.7.1 Background</td>
<td>56</td>
</tr>
<tr>
<td>3.7.2 Economic ownership by type of contractual agreement</td>
<td>57</td>
</tr>
<tr>
<td>3.7.3 Definitions of types of ownership according to shipping</td>
<td>57</td>
</tr>
<tr>
<td>classification societies</td>
<td></td>
</tr>
<tr>
<td>4 Contractual agreements for sea and air transport</td>
<td>60</td>
</tr>
<tr>
<td>4.1 Introduction</td>
<td>60</td>
</tr>
<tr>
<td>4.2 Voyage charter</td>
<td>60</td>
</tr>
<tr>
<td>4.3 Contract of Affreightment (CoA)</td>
<td>60</td>
</tr>
<tr>
<td>4.4 Time charter</td>
<td>60</td>
</tr>
<tr>
<td>4.5 Bareboat charter</td>
<td>61</td>
</tr>
<tr>
<td>4.6 Leases</td>
<td>61</td>
</tr>
<tr>
<td>5 Economic ownership and changes of ownership</td>
<td>70</td>
</tr>
<tr>
<td>5.1 Introduction</td>
<td>70</td>
</tr>
<tr>
<td>5.2 Bareboat charter</td>
<td>70</td>
</tr>
<tr>
<td>5.3 Time charter</td>
<td>74</td>
</tr>
<tr>
<td>6 Complex ownership and operations arrangements in the shipping cluster explained</td>
<td>76</td>
</tr>
<tr>
<td>6.1 Markets for vessels</td>
<td>76</td>
</tr>
<tr>
<td>6.2 Interactions among institutional units</td>
<td>78</td>
</tr>
<tr>
<td>6.3 Respective transactions for providing transport services</td>
<td>80</td>
</tr>
<tr>
<td>6.3.1 Case study lease with the crew</td>
<td>80</td>
</tr>
<tr>
<td>6.3.2 Case study bareboat charter</td>
<td>82</td>
</tr>
<tr>
<td>6.3.3 Case study standard ship management agreement</td>
<td>84</td>
</tr>
<tr>
<td>7 The possible impact on macro-economic statistics of IFRS 16 on leases of vessels and aircraft</td>
<td>87</td>
</tr>
<tr>
<td>7.1 Introduction</td>
<td>87</td>
</tr>
<tr>
<td>7.2 Lessee accounting</td>
<td>89</td>
</tr>
<tr>
<td>7.3 Lessor accounting</td>
<td>90</td>
</tr>
<tr>
<td>7.4 Subleases</td>
<td>91</td>
</tr>
<tr>
<td>7.5 Sale and leaseback transactions</td>
<td>92</td>
</tr>
</tbody>
</table>
7.6 Some considerations.............................................................................................................. 93
7.7 Example of lessee accounting: IAS 17 vs IFRS 16.......................................................... 93
7.8 References.............................................................................................................................. 97
7.9 Eurostat information note on the impact on macro-economic statistics of
IFRS 16 on leases..................................................................................................................... 97
7.9.1 Introduction....................................................................................................................... 97
7.9.2 Recording of leases in business accounts....................................................................... 97
7.9.3 Leases in ESA 2010......................................................................................................... 100
7.9.4 Proposals to compile macro-economic data on the basis of IFRS 16
methodology......................................................................................................................... 100
7.9.5 Summary......................................................................................................................... 101

8. Recommendations................................................................................................................. 102
8.1 Economic ownership.......................................................................................................... 102
8.2 Sea and air transport arrangements with change of economic ownership........................ 103
8.2.1 Demise or bareboat charter............................................................................................ 103
8.2.2 Financial and operating leasing...................................................................................... 103
8.3 Sea and air transport arrangements without change of economic ownership................... 103
8.3.1 Voyage charter............................................................................................................... 103
8.3.2 Time charter.................................................................................................................... 104
8.3.3 Dry leasing...................................................................................................................... 104
8.3.4 Wet leasing...................................................................................................................... 104
8.4 Foreign direct investments................................................................................................. 104
8.5 Standard ship management agreement............................................................................. 105
8.6 Relevance of the flag.......................................................................................................... 105
8.7 Ownership structures.......................................................................................................... 105
8.8 Goods delivered to vessels and aircraft............................................................................ 106
8.9 Arrangements in sea and air transport based on IFRS 16 reporting................................. 106
8.9.1 Long-term bareboat charter and long-term dry lease...................................................... 106
8.9.2 Voyage charter............................................................................................................... 107
8.9.3 Time charter.................................................................................................................... 107
8.9.4 Wet leases with crew...................................................................................................... 107
8.10 Vessel pool arrangements................................................................................................. 108
8.11 Modelling of payments related to financial and operating leasing................................. 108
8.11.1 Explanatory note.......................................................................................................... 108
8.11.2 Development of a financial leasing model for balance of payments and
national accounts purposes.................................................................................................. 109
8.11.3 FISIM............................................................................................................................ 111

9. Country cases: an overview of national experience with statistical recording of
sea and air transport.................................................................................................................. 115
9.1 Case study Belgium: Construction of mobile equipment..................................................... 115
9.2 Country case Denmark: Vessels and aircraft registered in foreign register
as extra data source for international trade in goods statistics............................................. 117
9.2.1 Introduction.................................................................................................................... 117
Annex: Examples of charter contracts ................................................................. 257

Barecon 2001 .................................................................................................. 257
Time Charter – BOXTIME 2004 ................................................................. 269
Voyage Charter – GENCON ........................................................................... 285
Standard ship management agreement – SHIPMAN98 ............................... 289
List of tables

Table 1: Internationally-recognised definitions for branches ......................................................... 25
Table 2: Selected effects of the residences status of an enterprise owned by a non-resident on the statistics of the host economy .................................................................................. 28
Table 3: Determining the residency of mobile equipment operator ............................................. 29
Table 4: Methods for estimating transport ................................................................................... 41
Table 5: Asset and liability securitisation ...................................................................................... 50
Table 6: Example of a typical maritime holding structure .......................................................... 52
Table 7: Definitions of types of ownership according to IHS Maritime & Trade and Lloyd’s Intelligence List .................................................................................................................. 56
Table 8: Managing costs by contract type .................................................................................... 61
Table 9: Recording of leases as laid down in the ESA 2010 and the BPM6 ............................... 62
Table 10: Types of sea transport contractual agreements and their recording ............................ 64
Table 11: Stylised SPV balance sheet ............................................................................................. 71
Table 12: Checklist – Identification of changes in ownership (based on the bareboat charter identifications) ................................................................................................................. 72
Table 13: Checklist – costs payable by the legal owner (being also economic owner) and operator in the case of time charter .................................................................................... 75
Table 14: Checklist to define legal owner and ship manager/operator .......................................... 86
Table 15: IFRS 16 – impact on industries ...................................................................................... 89
Table 16: IFRS 16 – Impact on lease accounting .......................................................................... 92
Table 17: Accounting of operating leases under IAS 17 ............................................................... 95
Table 18: Accounting of operating leases under IFRS 16 ................................................................ 96
Table 19: Components underlying balance of payments reporting available in the IFRS 16 based accounts .................................................................................................................. 108
Table 20: Bridge table IFRS 16 items and balance of payments items ........................................ 110
Table 21: Types of sea transport contractual agreements and their recording ............................. 112
Table 22: Questionnaire in DIS .................................................................................................... 121
Table 23: ALC Assets in EUR million .......................................................................................... 129
Table 24: ALC Liabilities in EUR million ..................................................................................... 129
Table 25: Checklist ....................................................................................................................... 133
Table 26: Types of ownership as defined according to IHS Maritime & Trade and Lloyd’s Intelligence List .................................................................................................................. 135
Table 27: Selected variables from IHS Markit ................................................................................ 145
Table 28: Direct cruise sector economic contribution – Global and regional markets 2017 .......... 150
Table 29: Costa Spa economic indicators ..................................................................................... 151
Table 30: Effect on GFCF of second-hand ships adjustment (percentage) .................................. 157
Table 31: Overview on charter contracts ...................................................................................... 185
Table 32: Reduction in intermediate consumption for the air transport industry ....................... 202
Table 33: Effect of JOLCO on intermediate consumption ............................................................ 203
Table 34: Effect of JOLCO on income statement.......................................................................... 210
Table 35: Balance sheet comparison under FAS and IFRS in different JOLCO treatment ......... 211
Table 36: Description of activities in industry 51 in the year 2016 ............................................... 212
Table 37: Enterprises in the water transport industry (NACE 50) in Finland year 2017 ................ 213
Table 38: Register based (Traficom) import – export by Finnish Vessels 1970 – 2018 ............... 214
Table 39: Imports of vessels in international trade in goods statistics .......................................... 214
Table 40: Exports of vessels in international trade in goods statistics .......................................... 215
Table 41: Number of vessels in Transport and Communications Agency Register ...................... 218
Table 42: Enterprise A .................................................................................................................. 222
Table 43: Enterprise B .................................................................................................................. 223
Table 44: Statistical value of vessel transactions during 2010–2018 ......................................... 224
Table 45: Customs statistics time series 2010–2018 .................................................................. 226
Table 46: Navigable vessels with above CN codes are recorded by Finnish customs statistics when economic ownership is changed .......................................................... 227
List of figures

Figure 1: Ownership layers around a vessel ................................................................. 22
Figure 2: Branches and their reporting (case 1) ............................................................ 24
Figure 3: Branches and their reporting (case 2) ........................................................... 24
Figure 4: Decision-making on the recording of balance of payments transactions .......... 27
Figure 5: Scheme of the statistical treatment of ships in ITGS and national accounts .......... 38
Figure 6: Simplified schema of identified data sources .................................................. 43
Figure 7: Stylized operations of SPVs ......................................................................... 51
Figure 8: Basic structure of a shipping group of companies .......................................... 53
Figure 9: Complex structure of a shipping group of companies ....................................... 53
Figure 10: Operating leases financing structure for air transport .................................... 54
Figure 11: Financial leases financing structure for air transport ...................................... 55
Figure 12: Leasing transactions in the air transport sector .............................................. 68
Figure 13: Building up a fleet and possible interactions when buying a ship ................. 77
Figure 14: Functioning of the cluster; players and relationships ..................................... 79
Figure 15: Simplified presentation of transactions recorded for balance of payments ....... 79
Figure 16: Case A: Charter-in scheme lease with the crew ............................................ 80
Figure 17: Case A: Charter-in scheme and balance of payments transactions reporting .... 81
Figure 18: Case B: Bareboat charter scheme ............................................................... 82
Figure 19: Case B: Bareboat charter scheme and balance of payments transactions reporting ... 83
Figure 20: Combined cases lease with crew and bareboat charter .................................. 84
Figure 21: Standard ship management agreement and balance of payments transactions reporting .......... 85
Figure 22: Frontloading effect ..................................................................................... 90
Figure 23: Standard case subleases ............................................................................. 91
Figure 24: Sale and leaseback operation ...................................................................... 92
Figure 25: Stages of construction of mobile equipment ................................................. 116
Figure 26: Sea transport services exports in DKK billion ............................................... 117
Figure 27: Top 10 Maritime nations in terms of operated tonnage in GT million .......... 118
Figure 28: Danish flagged merchant fleet .................................................................... 118
Figure 29: Number of Danish controlled vessels ......................................................... 119
Figure 30: Value of trade in aircraft and share of total trade from 2010 to 2018 ............. 126
Figure 31: Operating income and total income for ALCs ............................................. 127
Figure 32: Geographical share of operational leasing income over 10-year period ........ 128
Figure 33: Income, expenses and profit data for ALCs .................................................... 128
Figure 34: Employment and Wages ......................................................................... 130
Figure 35: Standard ship management agreement and balance of payments transactions reporting .......... 132
Figure 36: Case C – Presentation of the Greek shipping cluster and balance of payments transactions reporting .......... 143
Figure 37: Market share in terms of sleeping accommodation ....................................... 149
Figure 38: Different steps of the estimation process .................................................... 155
Figure 39: ITGS estimate scheme ............................................................................. 158
Figure 40: Transition of economic ownership .............................................................. 199
Figure 41: Trade in vessels/aircraft – interlinked transactions ....................................... 228
Figure 42: Central Register of Establishments and Enterprises and its environment ..... 237
Figure 43: Ocean transport – organization ................................................................ 239
Figure 44: SAS – organization as of 2019 ................................................................. 241
Figure 45: Ocean transport – organization ................................................................ 241
Figure 46: Commodity flows for ships ................................................................. 244
List of boxes

| Box 1: Reference to mobile equipment in the OECD BD4 | 33 |
| Box 2: Classifications of transport according to NACE Rev. 2 | 34 |
| Box 3: Classifications of transport according to NACE Rev. 2 | 34 |
| Box 4: Key conclusion | 36 |
| Box 5: BPM6 CG references to transport services | 37 |
| Box 6: Case presentation voyage charter | 40 |
| Box 7: Case presentation time charter | 40 |
| Box 8: Case study on ownership structures in the air transport industry | 54 |
| Box 9: Case study on financial leases for air transport | 55 |
| Box 10: Definition of operating and financial leases in the ESA 2010 | 63 |
| Box 11: Definition of financial leases in the ESA 2010 | 67 |
| Box 12: Case study on air transport — leasing markets | 68 |
| Box 13: Case study on air transport — leasing transactions, accounting and statistical reporting | 68 |
| Box 14: Overview of the expenses in the cluster | 78 |
| Box 15: Expected impact of IFRS 16 | 88 |
| Box 16: Depreciation and interest under IFRS 16 | 94 |
| Box 17: Company’s stylised balance sheet under IFRS 16 | 99 |
| Box 18: Company’s stylised income statement under IFRS 16 | 99 |
| Box 19: Annual inquiry on international trade in services and international flows of goods | 207 |
| Box 20: Financial statements inquiry for enterprises | 210 |
| Box 21: Vessel data recorded by Finnish customs | 217 |
| Box 22: Example of financial leasing arrangements in case of chartering | 228 |
1 Introduction

1. INTRODUCTION

1.1 Overview

The important object of this handbook is to introduce the complex ownership structures, which make it difficult to easily identify and follow the recommended treatment in the international manuals and guides on the basis of the economic and legal ownership, institutional units, and residence. Consequently, statistical compilers are faced with challenges to record various cross-border transactions, e.g. transport, business services, goods, loans, income, financial services and direct investments.

The shipping industry facilitates 90% of global trade. Without shipping, the import and export of goods on the scale necessary to meet the demands of the modern world would not be possible. This makes maritime transport a fundamental part of the global economy, but also very sensitive to macroeconomic changes. Nowadays, the shipping cluster is still used for transport of passengers, apart from its predominant exploitation for freight transport.

The maritime cluster is a group of interconnected companies that are involved in providing maritime transport services. These companies constitute a network of specialised vessels (regulated by the International Maritime Organization, IMO), ports and infrastructure, ranging from factories to terminals, distribution centres and markets. They have branches and/or offices across the world.

Links between these companies and the fact that they operate internationally makes the task of data compilers extremely complicated. Obtaining statistical information from reporters is enforced by legal acts that apply to legal residents and to own account reporting, and vary among the different economies (countries). Given the multi-territorial legal structure of each shipping group, the resident company: (a) may not hold the required information; (b) is not legally obliged to report on another’s behalf/account.

Furthermore, having in mind the usual practice for such companies to establish ‘branches’ or ‘operating offices’ in several countries, where they operate (including simply registering ‘flags of convenience’), makes it even more difficult to determine their residency (i.e. the country to which the activities of the shipping company would be allocated). Some examples of shipping structures are presented in the following chapters. In this regard SPV/SPEs owning aircraft and vessels are discussed. Important to note are the recommendations of the IMF Task Force on SPEs presented its final report (BOPCOM 18-03).

The overall purpose of this handbook is to provide guidance and practical information on the balance of payments (BOP), international trade in goods and services statistics (ITGSS), national accounts (NA) and other sea transport-related data compilation work. It examines current EU-level procedures...
and includes practice examples from various EU countries on how they record and report transactions. The ultimate goal is to support the work of the European Statistical System (ESS) data compilers.

The handbook covers different aspects of the functioning of the maritime cluster, such as who the major players are and the links between them. The terminology used is defined in methodological manuals.

References to the legal and methodological framework underpinning this handbook are presented at the end of this introduction. The remaining chapters and annexes cover the following topics:

- Chapter 2: methodology of the accounting framework with emphasis on common definitions used for sea and air transport, such as the concept of economic ownership; possible data sources from which to derive indicators and allocate to the sequence of accounts.
- Chapter 3: institutional units engaged in sea and air transport and their links to financial and non-financial corporation subsectors within the ESA 2010 and the BPM6 framework; guidance on how to assign economic and legal ownership to various bodies belonging to these subsectors.
- Chapter 4: relationship between contractual transport agreements and economic and legal ownership with an emphasis on trading arrangements that pose particular compilation difficulties.
- Chapter 5: an in-depth examination of criteria to identify a change in economic ownership related to vessels or aircraft.
- Chapter 6: complex ownership and operations arrangements for vessels and aircraft with illustrated examples; how to compute and allocate the output and related sea and air transport transactions for macroeconomic statistics; tables and charts on practical examples of the statistical recording of sea transport for the BPM6 sequence of accounts.
- Chapter 7: how statistical and business accounting standards relate to economic ownership in general, including the impact of IFRS 16 macroeconomic statistics on vessel and aircraft leases; how national compilers might adjust source data (on a business accounting basis) to come up with a best estimate for an ESA 2010 and the BPM6 presentation at a macro level. The research for this chapter focuses on the aviation sector.
- Chapter 8: how to report sea and air transport transactions in the accounting frameworks given the variety of business models; how to prepare statistical estimates under the new accounting standards so that they follow the international guidelines.
- Chapter 9: case studies showing how countries compile sea and air transport statistics.
- Glossary of statistical terms: comprehensive list of definitions of statistical concepts, variables and acronyms used in this handbook.
- Annex: examples of sea transport contracts.

1.2 Legal and methodological framework

1.2.1 Balance of payments statistical legal acts in the context of the European Statistical System


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as regards the update of data requirements and definitions


1.2.2 Methodological guidelines and manuals

- Eurostat BOP Vademecum (December 2019)
- Balance of Payments and International Investment Position (BPM6) Compilation Guide (BPM6 CG) 6
- European System of Accounts (ESA 2010)
- Eurostat Task Force ‘Trade in Ships and Aircraft’, final report
- 4th edition of the OECD Benchmark Definition of Foreign Direct Investment (OECD BD4)
- User guide on European statistics on international trade in goods, 2017 edition
- IMF: Final report of the Task Force on Special Purpose Entities, BP 18-03

1.2.3 Relevant legislation for the purpose of this handbook

- Council Regulation (EEC) No 4055/86 of 22 December 1986 applying the principle of freedom to provide services to maritime transport between Member States and between Member States and third countries (OJL 378/4 of 31.12.1986)
- Commission Regulation (EC) No 823/2000 of 19 April 2000 on the application of Article 81(3) of the Treaty to certain categories of agreements, decisions and concerted practices between liner shipping companies (consortia) (Text with EEA relevance)

to maritime transport, and amending Regulation (EC) No 1/2003 as regards the extension of its scope to include cabotage and international tramp services (Text with EEA relevance)

1.2.4 Analytical report

2. METHODOLOGICAL FRAMEWORK FOR THE COMPILATION OF STATISTICS ON SEA TRANSPORT

2.1 Sea transport companies operating as multi-territory enterprises

Sea transport services are a global business, taking place in several countries’ economic territories or even outside national economic territories, i.e., in international waters. The BPM6 (paragraph 4.41) addresses the entities (‘institutional units’) involved: ‘Some enterprises may operate as a seamless operation over more than one economic territory. Although the enterprise has substantial activity in more than one economic territory, it is run as an indivisible operation with no separate accounts or decisions, so that no separate branches can be identified. Such enterprises may have operations including shipping lines, airlines, hydroelectric schemes on border rivers, pipelines, bridges, tunnels, and undersea cables. Some NPISHs also may operate in this way.’

The BPM6 Compilation Guide (BPM6 CG) explains the complexity of the maritime cluster: BPM6 CG paragraph 3.51 notes that ‘Unlike rail transport, road transport services may be provided by many companies and, as in the shipping industry, there may be many complex ownership and operation arrangements’. The BPM6 CG also devotes a section to Ownership and Operation of Transport Equipment. Paragraph 12.27 underlines the complexity of shipping companies’ arrangements: ‘To properly record transport services in the balance of payments, it is necessary to distinguish between the owner of mobile equipment and the operator of the equipment. The owner is generally the company that has legal title to the equipment. The company that controls the operation and movement of the equipment is regarded as the operator. The operator is usually responsible for supplying a crew, maintaining equipment in proper working order, and deciding when, and to which location, the equipment will be moved’.

The figure below illustrates a typical case.
Many institutional units, each with their own specific function, are involved in maritime transport activities. This handbook focuses on the roles of the legal (ship) owner, the charterer and the ship manager. Their relative importance depends on the exact shipping segment in question. However, broader market participants such as cargo owners, financiers and insurers are covered.

2.2 Establishing notional units for sea transport companies

A fundamental rule of the BPM6 (paragraph 4.113) is that an economic unit can be resident in only one economic territory, and thus resident of only one country. To be considered a resident of a particular country, an economic unit must have its centre of predominant economic interest (i.e. economic activities over an extended period of time) in that territory.

Assigning residency to a shipping company is addressed in the BPM6 (paragraph 4.31). Operators of mobile equipment, such as ships, aircraft, drilling platforms, and railway rolling stock, may operate in more than one economic territory. The criteria for recognising a branch may therefore also apply to these operators, but only as long as the operations taking place outside their home territory are sufficiently substantial. BPM6 paragraph 4.31 states: ‘For example, a secondary base for servicing the fleet with long-term presence and its own accounts may satisfy the definition of a branch. (If they do not satisfy the definition of a branch, the activities of the ship-operating enterprise are included in the economy where the operator is resident; see paragraph 4.136.).’

When a branch is recognised on a given territory, there will be direct investment inflows to that territory. The provision of goods or services to customers in that territory will therefore be considered a ‘resident-to-resident’ transaction. However, if an economic unit’s operations are not substantial enough to qualify as a branch, the provision of goods or services to customers in that territory will be considered imports of that territory (BPM6 paragraph 4.33).

‘The identification of branches has implications for the statistical reporting of both the parent and
branch. The operations of the branch should be excluded from the institutional unit of its head office in its home territory and the delineation of parent and branch should be made consistently in both of the affected economies. Each branch is a direct investment enterprise’ (BPM6 paragraph 4.28).

The OECD’s benchmark definition of foreign direct investment (4th edition) states in paragraph 103: ‘Some production processes may involve mobile equipment that operates in more than one economic territory, such as ships, aircraft, drilling rigs and platforms, and railway rolling stock. Some of these operations may take place outside any territory, such as ships operating in the high seas. Moreover, services such as consulting, maintenance, training, technical assistance and healthcare can also be delivered on-site with sufficient presence to amount to a branch. The criteria for recognition of a branch apply in these cases. In many instances, the activity can be seen as having been undertaken from a base of operations, so that the operations are attributed to that unit, and the recognition of an additional unit for non-resident operations is not appropriate. However, in some cases, the operations in a territory outside the home base could be substantial enough to meet the definition of a branch. For example, the existence of a branch would be recognised if a shipping company has a secondary base for servicing its fleet that is substantial, permanent, and has its own accounts’.

The BPM6 (paragraph 4.26) defines a branch as follows: ‘When a non-resident unit has substantial operations over a significant period in an economic territory, but no separate legal entity for those operations, a branch may be identified as an institutional unit. This unit is identified for statistical purposes because the operations have a strong connection to the location of operations in all ways other than incorporation.’

According to ESA 2010 (paragraph 18.12), a notional unit (branch) - separate from the institutional unit of its head office - should be established if:

- it has substantial production in a territory outside that of its head office;
- the operations can be separated from the rest of the entity and identified as an institutional unit;
- it has a complete set of accounts, including a balance sheet, or it is possible and meaningful to compile these accounts if they were to be required.

Considering the global nature of the maritime cluster, discussions on the identification and treatment of branches are of key importance. The internationally-recognised definitions for branches are given in the BPM6, the ESA 2010 and the OECD’s benchmark definition of foreign direct investment (4th edition). See also Table 1 of this handbook on ‘Internationally-recognised definitions for branches’.

The main criteria for recognising a unit as a branch are that the branch: (i) compiles its own accounts (‘has substantial operations in another economic territory’); (ii) compiles and publishes financial statements; and (iii) is subject to the tax system (if any) of the territory in which it is located even if it has a tax-exempt status. In addition, according to the 2008SNA (paragraph 26.30), the branch should have ‘either a complete set of accounts or it would be meaningful from an economic and legal point of view to compile them, if required’.

Based on his/her expert interpretation, it is up to the data compiler to decide whether the branch has substantial operations, as each case and each national economy has its own particularities. Possible criteria for making this judgement may include the type of activity, the number of employees, and the availability of own accounts.

The figures below illustrate the different treatment of the branches. If a branch is identified as an institutional unit in country X, it is recognised as being subject to the income tax system (if any) of the economy in which it is located (country X in our case). If the headquarters of a company and its branch are located in the same country (country X) the transactions between the two units are resident-to-resident transactions and therefore should be recorded in the national accounts, but not in the balance of payments of country X. If a company (in country X) has an office (which is not considered as a branch) operating in an economy (in country Y) separate from that of the mother company, the unit in country Y is a representative of the mother company, and is considered to be a resident of country X. Therefore, the transactions incurred by that office (in country Y) with non-resident units of country X should be recorded as balance of payments transactions in the economy of the headquarters (country X).
If a branch is operating (over a significant period) in an economy (country Y) separate from that of its owner (country X), the transactions incurred by the branch with non-residents of country Y will be recorded in the balance of payments of country Y. The financial transactions from the mother company (country X) to the branch (country Y) are considered to be foreign direct investments (FDI), and should be recorded as a balance of payments transaction for the mother company, operating in country X.

Source: Eurostat

Figure 3: Branches and their reporting (case 2)

Source: Eurostat

Figure 4: Decision-making on the recording of balance of payments transactions on reports on the balance of payments transactions in relation to the recognition units as branches once they operate abroad.
### Table 1: Internationally-recognised definitions for branches

<table>
<thead>
<tr>
<th>BPM6</th>
<th>ESA 2010</th>
<th>OECD BD4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 4 ‘Economic territory. Units, Institutional Sectors and Residence’ Section ‘2. Identification of institutional units with cross-border elements’</td>
<td>Chapter 18 ‘Rest of the world accounts’ Section ‘Branches as a term used in the international accounts of the balance of payments’</td>
<td>Chapter 3 ‘Main Concepts and Definitions of Foreign Direct Investment’ Section ‘3.2.2. Institutional units’</td>
</tr>
</tbody>
</table>

4.26 When a non-resident unit has substantial operations over a significant period in an economic territory, but no separate legal entity for those operations, a branch may be identified as an institutional unit. This unit is identified for statistical purposes because the operations have a strong connection to the location of operations in all ways other than incorporation.

18.12 A branch is an unincorporated enterprise that belongs to a non-resident unit, known as the parent. It is treated as a resident and a quasi-corporation in the territory where it is situated. The identification of branches as separate institutional units requires indications of substantial operations that can be separated from the rest of the entity.

99. Even though a branch is not a separate legal entity, it is statistically identified as a quasi-corporation if it operates in an economy separate from that of its owner and has operations over a significant period in that economic territory. (Note: The common usage of the term branch is broader, where a ‘branch’ may also mean establishments, incorporated subsidiaries, or industrial classification group.)
4.27 further says that a branch is recognised in the following cases:

a) Either a complete set of accounts, including a balance sheet, exists for the branch, or it is possible and meaningful, from both an economic and legal viewpoint, to compile these accounts if they were to be required. The availability of separate records indicates that an actual unit exists and makes it practical to prepare statistics.

In addition, one or both of the following factors tend to be present for a branch:

b) The branch undertakes or intends to undertake production on a significant scale that is based in a territory other than that of its head office for 1 year or more:

I. If the production process involves physical presence, then the operations should be physically located in that territory. Some indicators of an intention to locate in the territory include purchasing or renting business premises, acquiring capital equipment, and recruiting local staff; or

II. If the production does not involve physical presence, such as some cases of banking, insurance, other financial services, ownership of patents, trademarks or copyrights, merchanting and ‘virtual manufacturing,’ the operations should be recognised as being in the territory by virtue of the registration or legal domicile of those operations in that territory; or

c) The branch is recognised as being subject to the income tax system, if any, of the economy in which it is located even if it may have a tax-exempt status.

18.12 A branch is recognised in the following cases:

(a) Either a complete set of accounts, including a balance sheet, exists for the branch; or

(b) It is possible and meaningful, from both an economic and legal viewpoint, to compile those accounts if required. The availability of separate records indicates that an actual unit exists and makes it practical to prepare statistics.

In addition, one or more of the following factors tend to be present:

(a) The branch undertakes or intends to undertake production on a significant scale and that production is based in a territory other than that of its head office, for 1 year or more:

(1) If the production process involves physical presence, then the operations should be physically located in that territory;

(2) If the production does not involve physical presence, such as some cases of banking, insurance, other financial services, ownership of patents, trademarks or copyrights, merchanting and ‘virtual manufacturing,’ then the operations should be recognised as being in the territory by virtue of the registration or legal domicile of those operations in that territory;

(b) Even if it has tax-exempt status, the branch is recognised as being subject to the income tax system, if any, of the economy in which it is located.

Source: BPM6, OECD BD4, the ESA 2010

100. To avoid the multiplication of artificial units, the definition of branches requires several indicators of substantial economic activity and separate accounts.

103. Some production processes may involve mobile equipment that operates in more than one economic territory, such as ships, aircraft, drilling rigs and platforms, and railway rolling stock. Some of these operations may take place outside any territory, such as ships operating on the high seas.

The criteria for recognition of a branch apply in these cases. In many instances, the activity can be seen as having been undertaken from a base of operations, so that the operations are attributed to that unit, and the recognition of an additional unit for non-resident operations is not appropriate.

However, in some cases, the operations in a territory outside the home base could be substantial enough to meet the definition of a branch. For example, the existence of a branch would be recognised if a shipping company has a secondary base for servicing its fleet that is substantial, permanent, and has its own accounts.
Figure 4: Decision-making on the recording of balance of payments transactions

Institutional unit that operates in a territory (Country B) outside its "home base" (Country A)

- Yes
  - Operations in country B are substantial enough (e.g., long-term presence in country B, own accounts, etc.)
    - Recognised as a BRANCH (in country B)
      - Provision of goods or services to customers in countries in country B
        - (resident to resident transactions)
          - National Accounts
      - Provision of goods or services to customers in countries other than country B
        - (resident to non-resident transactions)
          - Balance of payments
  - (Non-resident unit (in country B))
    - Provision of goods or services to customers in countries in country A
      - (resident to resident transactions)
        - National Accounts
    - Provision of goods or services to customers in countries other than country A
      - (resident to non-resident transactions)
        - Balance of payments

- No
  - Non-resident unit (in country B)

Source: Eurostat
2.3 Residency

The 2008 SNA and the BPM6 provide guidelines for determining the residence of multi-territory enterprises that operate a seamless operation over more than one economic territory. Such enterprises are typically involved in cross-border activities and include shipping lines, airlines, hydroelectric schemes on border rivers, pipelines, bridges, tunnels and undersea cables. When it is not possible to identify a parent or separate branches, it is recommended to prorate the total operations of a multi-territory enterprise by the individual economic territories in which it operates. The case study discussed in Chapter 9.13.8 proposes a method how to distribute trade and value added for a multi-territory enterprise with seamless production.

To guarantee consistent reporting and equal treatment, it is crucial to identify the residence of the enterprise and its owner, as this will define the transactions to be reported and in which country. On the residence of enterprises, BPM6 refers to the 2008 System of National Accounts (2008 SNA)(7) (Chapter 2: ‘Units and grouping of units’ of ESA 2010, Chapter 4: ‘Institutional units and sectors’ and Chapter 26: ‘The rest of the world accounts and links to the balance of payments’). The residence of the institutional unit is defined by its ‘centre of predominant economic interest’, i.e. the economic territory to which the institutional unit has the strongest connection. Each institutional unit can be a resident of only one economic territory.

An institutional unit is resident in an economic territory when there exists, within the economic territory, some location, dwelling, place of production, or other premises on which or from which the unit engages and intends to continue engaging, either indefinitely or over a finite but long period of time, in significant economic activities and transactions.

In the absence of any physical premises, an enterprise’s residence is determined according to the economic territory under whose laws it is incorporated or registered (if the institutional unit is resident in a different territory than the territory of residence of the related corporations).

The BPM6 Chapter 4 ‘Economic territory. Units, Institutional Sectors and Residence’, section ‘E. Residence’, paragraph 4.131 further clarifies (see below) that an enterprise is resident in an economic territory when the enterprise is engaged in a significant amount of production of goods or services from a location in the territory.

Table 2: Selected effects of the residences status of an enterprise owned by a non-resident on the statistics of the host economy

<table>
<thead>
<tr>
<th>Economic flow or position</th>
<th>Resident enterprise (e.g. long-term construction project)</th>
<th>Nonresident enterprise (e.g. short-term construction project)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales by enterprise to residents</td>
<td>Not international transaction</td>
<td>Imports of goods and services</td>
</tr>
<tr>
<td>Purchases by enterprise from residents</td>
<td>Not international transaction</td>
<td>Exports of goods and services</td>
</tr>
<tr>
<td>Compensation of employees payable to residents of host economy</td>
<td>Not international transaction if receivable</td>
<td>Compensation of employees</td>
</tr>
<tr>
<td>Compensation of employees payable to residents of home economy</td>
<td>Compensation of employees</td>
<td>Not transaction of host economy</td>
</tr>
<tr>
<td>Net operating surplus</td>
<td>Dividends payable or reinvested earnings (enterprise is a direct investment enterprise)</td>
<td>Not international transaction</td>
</tr>
<tr>
<td>Injections of funds by owners</td>
<td>Direct investment liabilities of the reporting economy (enterprise is a direct investment enterprise)</td>
<td>Not international transaction</td>
</tr>
<tr>
<td>A resident institutional unit’s financial claims on or liabilities to the enterprise</td>
<td>Not included in international accounts</td>
<td>Included in international accounts</td>
</tr>
</tbody>
</table>

Source: BPM6

The BPM6 Chapter 4 ‘Economic Territory, Units, Institutional Sectors, and Residence’, provides the following clarifications:

The ships being mobile equipment may operate across more than one economic territory, in these cases the criteria for recognition of a branch should be applied, as stipulates BPM6 in section ’Mobile
Methodological framework for the compilation of statistics on sea transport

...equipment’, paragraphs 4.31, 4.33 and 4.136 (see the next Chapter for further details). Also the company operating mobile equipment may be legally domiciled in one country but managed from another. In case it is not possible to identify a parent or separate branches, the total operations of a multi-territory enterprise, may be pro-rated by the individual economic territories in which it operates recommends the 2008 SNA paragraph 4.13.

The BPM6 Compilation Guide (CG), Chapter 8: ‘Crosscutting Issues in Compiling Balance of Payments and International Investment Position Statistics’, paragraph 8.58 and table 8.2 define the various types of mobile equipment and factors that should be considered in establishing, for each type of equipment, the economy of the country of residence of the operator.

Table 3: Determining the residency of mobile equipment operator

<table>
<thead>
<tr>
<th>Type of mobile equipment</th>
<th>Economy of residence of operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment operating in international waters or airspace</td>
<td>Economy of incorporation of operator; for equipment under financial lease, the lessee is considered the operator. For a ship flying a flag of convenience, the economy of the operator is the economy of the company directing the ships operations, which may not necessarily be the economy of registration. If the operator establishes, for tax or other considerations, a branch or subsidiary in another economy to manage the operation, the operation is attributable to the economy of the branch.</td>
</tr>
<tr>
<td>Equipment moving frequently between two or more economies</td>
<td>Host economy; if equipment is accounted for separately by the operator and recognized as a separate company by the host economy's tax and licensing authorities, the host economy is the operators economy of residence. Otherwise, the economy of incorporation of the operator is, if previously outlined qualifications are met, the economy of residence.</td>
</tr>
<tr>
<td>Equipment operating for more than one year in the economy in which the legal operator is resident</td>
<td></td>
</tr>
<tr>
<td>Equipment operating for more than one year within an economy other than the economy in which the operator is incorporated</td>
<td></td>
</tr>
</tbody>
</table>

Source: BPM6 CG

The national accounts and balance of payments use the concept of ‘residence’ to define which entities belong to which country’s economic activities.

ESA 2010 paragraph 18.08 defines residence as follows: 'The residence of each institutional unit is the economic territory with which it has the strongest connection, expressed as its centre of predominant economic interest.'

The BPM6 (paragraph 4.31 and paragraph 4.136) indicates that the activities of the ship-operating enterprise (being also the economic owner of the vessel) are included in the economy of the country where the operator is resident, unless a branch is recognised to have substantial operations in another territory. Table 8.2 in the BPM6 CG lists the equipment operating in international waters that should be recorded under the economy of the country of residence of the operator, who is also the economic owner of the vessel. For leased equipment, the lessee is considered the operator and economic owner for balance of payments purposes. For a ship flying a flag of convenience, the operator’s economic residence is the territory of the company directing the ship’s commercial operations, which may not necessarily be the territory of registration (of the ship).

The decision on the residency status of mobile equipment is made on the basis of the residency status of the enterprise operating such equipment. The BPM6 (paragraph 4.136) defines that an institutional unit that operates ships on the high seas and various territorial waters has its residency determined according to the criteria in paragraphs 4.131-4.135, and the economy of residence is not necessarily the same as the location where the ships spend the most time or the territory of registration of the ships. The enterprise that operates the ships is also not necessarily the same as the enterprise that owns the ships. For example, a ship operator can have an operating lease from a ship owner who resides in another economic territory.

The BPM6 CG (paragraph 12.27) also notes that to properly record transport services in the balance of payments, it is necessary to distinguish between the owner of mobile equipment and the operator of the equipment. The owner is generally the enterprise that has a legal title to the equipment.
The operator (called the ‘ship manager’ by some sources) is the enterprise that:
- provides transport services;
- controls the commercial operations of the vessel;
- controls the movement of the equipment (ship);
- receives revenues for transporting passengers and/or freight.

The operator is usually responsible for supplying crew, maintaining equipment in proper working order, and deciding when, and to which location, the equipment will be moved. They have the freedom to either provide these services themselves or to outsource some or all of them to one or more management companies.

The standard case is that the management company is paid for providing services to the ship’s economic owner (the legal owner or operator), for example for: crew and technical management, insurance and port taxes. However, it is not involved in the ship’s commercial operations or providing transport services. The management company might also be the ship operator if it is also the economic owner of the vessel and if it provides the transport service.

According to the BPM6 CG (paragraph 12.28), if a parent company transfers mobile equipment to a branch located abroad, the branch is considered the owner if the equipment is recorded in the books of the branch (for the balance of payments purposes).

The BPM6 (paragraph 4.136) also notes that flags of convenience used by enterprises do not determine the residence of the operator, and indeed a single shipping operator may have ships registered in several economic territories.

The BPM6 (paragraph 4.136) states: ‘The residence of the enterprise is determined from its base of operations, rather than the point of delivery or location of mobile equipment, an institutional unit that operates ships on the high seas and various territorial waters has its residence determined according to the criteria in paragraphs 4.131–4.135, and the economy of residence is not necessarily the same as the location where the ships spend the most time or the territory of registration of the ships. Additionally, the enterprise that operates the ships is not necessarily the same as the enterprise that owns the ships, such as where the ship operator has an operating lease from the ship owner, who is resident in another economy. The residence of the enterprise that owns the ship is determined according to the criteria in paragraphs 4.131–4.135. Flags of convenience used by enterprises do not determine the residence of the operator, and indeed a single shipping operator may have ships registered in several economies. Similarly, the residence of enterprises that charter ships is determined by the location of its own base of operations, rather than the flags or locations of particular ships. The base of operations does not necessarily equate to the location from which the enterprise is managed. A company operating mobile equipment may be legally domiciled in one economy but managed from another economy’. The ESA 2010 (paragraph 2.05) clarifies that ‘Fishing boats, other ships, floating platforms and aircraft are treated in the ESA as mobile equipment, whether owned and/or operated by resident units in the country, or owned by non-residents and operated by resident units. Transactions involving the ownership (gross fixed capital formation) and use (renting, insurance, etc.) of mobile equipment are attributed to the economy of the country of which the owner and/or operator respectively are residents. In cases of financial leasing, a change of ownership is assumed’.

BPM6 CG (paragraph 12.28) states that ‘the owner and the operator may be the same or different companies. As separate companies, they may be residents of different economies. In some cases, a chain of leasing arrangements may separate the owner from the operator of the equipment. As in a financial lease, the lessee of mobile equipment is considered the economic owner for balance of payments purposes, because a change of ownership is presumed. If a parent company transfers mobile equipment to a branch located abroad, the branch is - for balance of payments purposes, considered the owner if the equipment is recorded in the books of the branch’.

The ESA 2010 (paragraph 18.17) underlines the importance of data for each national economy. If it is not possible to identify a parent or separate branches, the manual recommends to pro-rate the operations in multi-territory enterprises according to an appropriate enterprise-specific indicator of the proportions of operations in each territory. The ESA 2010 (paragraph 18.17) says that ‘Some enterprises operate as a seamless operation over more than one economic territory, typically for cross-border activities such as airlines, shipping lines, hydroelectric schemes on border rivers, pipelines, bridges, tunnels and undersea cables. Separate branches need to be identified unless the entity is run as a single operation with no separate accounts or decision-making for each territory that it operates in. In such cases, because of the central focus on data for each national economy, it is necessary to
split the operations between economies. The operations are then pro-rated according to an appropriate enterprise-specific indicator of the proportions of operations in each territory. The pro-rating treatment may also be adopted for enterprises in zones subject to joint administration by two or more governments.

BPM6 (paragraph 4.43) specifies that ‘the factor used for pro-rating should be based on available information that reflects the contributions to actual operations. For example, equity shares, equal splits, or splits based on operational factors such as tonnages or wages could be considered. Where taxation authorities have accepted the multi-territory arrangements, a pro-rating formula may have been determined, which should be the starting point for statistical purposes.’

BPM6 CG (paragraph 12.18) provides that ‘Ships registered under flags of convenience should be attributed to the legal owners: however, the flags of convenience used by companies do not determine the residence of the owner or operator. The residence of the company that operates the ships is determined according to general criteria as defined in the BPM6, paragraphs 4.131–4.135, and it may not necessarily be the same as the company that owns the ships, such as where the ship operator has an operating lease from the ship owner, who is resident in another economy’.

In addition, BPM6 CG (paragraph 12.28) states that the operator (the company that controls the commercial operations and movement of the equipment) and the owner of the ship might be the same or different entities. As separate entities, they may be residents of different economic territories. In some cases, a chain of leasing arrangements may separate the owner from the operator of the equipment. But the economic owner of mobile transport equipment can also be the legal owner or the operator, depending on the contractual agreement between the companies. If the agreement is a bareboat charter then the operator can be the economic owner of the ship as long as the criteria for the transfer of economic ownership are met. However, for time, voyage or slot charter agreements the legal owner usually remains economic owner of the ship.

The decision on the residency status of mobile equipment is made on the basis of the residency status of the enterprise operating such equipment. The BPM6 (paragraph 4.136) defines that an institutional unit which operates ships on the high seas and various territorial waters has its residency determined according to the criteria in paragraphs 4.131–4.135, and the economy of residence is not necessarily the same as the location where the ships spend the most time or the territory of registration of the ships.

OECD BD4 (paragraph 333) clarifies that ‘The flag of a ship determines the authority that is responsible for overseeing the operations of the ship and may help determine the jurisdiction where business disagreements are litigated. The flag is often a ‘flag of convenience’ – that is, neither the ship owner nor its operator may have any business operation in the country whose flag is flown. Therefore the country of registration of the mobile equipment (e.g. of the ship) is not considered in determining the residency of any of the units involved in the shipping activity (that is, the owner or operator of the ship, and the ticket sales and business promotion offices), and so it is not relevant to the discussion of whether there may be a direct investment relationship’.

The BPM6 (paragraphs 4.31 and 4.136) indicates that the activities of the ship-operating enterprise (being also the economic owner of the vessel) are included in the economy where the operator is resident, unless a branch is recognised for substantial operations in another territory. The residency of the operator of mobile equipment serving in international waters is defined in BPM6 CG Table 8.2:

- For equipment under financial lease, the lessee is considered the operator and economic owner for balance of payments purposes.
- For a ship flying a flag of convenience, the economy of the operator is the economy of the company directing the ships operations, which may not necessarily be the economy of registration.
- If the operator establishes, for tax or other considerations, a branch or subsidiary in another economy to manage the operation, the operation is attributable to the economy of the branch.

2.4 Operator

Identifying the operator is a prerequisite for determining the geographic location of the transport services in question. To properly record exports and imports of ships, any change in economic ownership must be identified. The entity that transports a specified cargo by vessel according to a stated timetable could either charter a ship over a specified period (operating or financial leasing) or

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8 Information on the different charters is provided in Chapter 4.
conclude a contract with a freight carrier/operator to buy the transport service.

National accounts and balance of payments manuals set out definitions of operating and financial leasing in terms of the economic substance of the transaction. In the case of operating leasing, according to the ESA 2010, the service provided by the lessor goes beyond simply providing the asset and may include its repair, maintenance or replacement at short notice (ESA 2010 paragraphs 15.09 and 15.11).

According to the ESA 2010 definition, operating leasing is excluded from general merchandise and therefore also from international trade in goods statistics (ITGS) as it is considered a service. For financial leasing the lessor remains the legal owner (providing a loan to the lessee), and the lessee becomes the economic owner. The ESA 2010 (paragraph 15.19) also specifies that ‘any corporation that specialises in financial leasing, even if called a property company or aircraft leasing company, shall be classified as a financial intermediary offering loans to the unit leasing assets from them’. According to the ESA 2010 definition, financial leasing contracts are considered to be within the scope of ITGS.

The Compilers guide on European statistics on international trade in goods in paragraph 572 presents several indicators which may be used individually or in combination, enable compilers to identify the economic owner of a vessel/aircraft.

Compilers guide on European statistics on international trade in goods says in paragraph 573:

An entity is regarded as the economic owner (ESA 2010 paragraph 7.17) of the ship/aircraft (even if it is not the legal owner) if:

- the entity accepts all or most of the operating risks (losses) related to the use (operation) of the ship/aircraft and receives all or most of the economic benefits (profits) from the use (operation) of the ship/aircraft (Commission Regulation (EC) No 1982/2004, Art. 17(1)(c); Commission Regulation (EU) No 113/2010, Art. 19(1)(c);
- the entity is responsible for (paying for) repair and maintenance of the ship/aircraft (ESA95, Annex II, paragraph 3; ESA 2010 paragraphs 15.09 and 15.13);
- the entity has the option to purchase the ship/aircraft at the end of the lease period at a price that is lower than the fair value;
- the entity leases the ship/aircraft so that the present value of the lease payments amounts to the fair value of the ship/aircraft at the inception of the lease;
- the entity leases the ship/aircraft for the major part of its economic life;
- the entity has the unilateral right to terminate the lease contract;
- the entity is responsible for replacing the ship/aircraft in the event of a serious and prolonged breakdown (ESA 95, Annex II, par. 3; ESA 2010 paragraph 15.11);
- the ship/aircraft is leased by the entity from a purely financial intermediary, even if called an aircraft or ship leasing company (ESA 95, Annex II, par. 4; ESA 2010 paragraphs 15.15 and 15.19);
- the entity uses ships/aircraft in its main activity.

The ‘Trade in ships and aircraft’ taskforce identifies IAS 17 as another tool to identify the economic owner. IAS 17 criteria are very similar to those included in the ESA. When a compiler is confident that the business accounts of a company are in line with the substance of IAS 17, the intention of an entity to include/exclude ship/aircraft as an asset in its balance sheet indicates a change in economic ownership.

However, the new IFRS 16 accounting standards that entered into force in January 2019 should be further analysed by countries to assess whether they ensure proper transition and correct recording of the economic ownership. For a detailed discussion see Chapter 7 of this handbook.
2.5 Foreign direct investments relationship

The BPM6 makes no special reference to the treatment of foreign direct investment (FDI) in shipping companies. It is discussed in the OECD BD4, however.

Box 1: Reference to mobile equipment in the OECD BD4

OECD BD4 Chapter 6 ‘Special Entities’, in its section on ‘mobile equipment’ clarifies that:

‘331. The operator of mobile equipment (such as ships, aircraft, gas and oil drilling rigs) that operate within a single economy for at least one year and that fulfil the criteria for treatment as an unincorporated direct investment enterprise should be treated as direct investment branches.

332. Various entities may be involved in the provision of shipping and other transportation services. For shipping, the following entities may be involved:

- Owner – holds an asset (the ship) and may be engaged solely in a leasing activity, i.e., the leasing of the ship to an operator.
- Operator – is involved in shipping activities such as fishing, drilling or transporting freight and passengers.
- Ticket sales or business promotion offices – established either by the owner of the ship (who is seeking operators) or by the operator of the ship (who is seeking passengers, freight, or other business).

333. The flag of a ship determines the authority that is responsible for overseeing the operations of the ship and may help determine the jurisdiction where business disagreements are litigated. The flag is often a ‘flag of convenience’ – that is, neither the ship owner nor its operator may have any business operation in the country whose flag is flown. Therefore the country of registration of the mobile equipment (e.g. of the ship) is not considered in determining the residency of any of the units involved in the shipping activity (that is, the owner or operator of the ship, and the ticket sales and business promotion offices), and so it is not relevant to the discussion of whether there may be a direct investment relationship.

334. If the owner and the operator are the same entity (such as when the owner operates the ship in its own economy of residence), then there is no direct investment. If the owner and the operator are not the same entity (or are not related), then they are separate institutional units. The owner will typically receive a fee from the operator, reflecting the payment (rental services) for the use of the vessel. In this case, the owner is a lessor, and is not a provider of transportation services. The operator of the vessel provides transportation services; it receives revenues for transporting passengers and/or freight, pays wages to crew members (who may be residents of a different economy than the operator), and incurs other transportation-related expenses including port expenditures. The relationship between the owner and the operator of the ship is essentially that of a lessor and its lessee, not that of direct investor and a direct investment enterprise, though it is possible that they could be in a direct investment relationship if the lessor owns at least 10% of the voting power in the lessee.’

The OECD BD4 further discusses and explores shipping companies’ activities in paragraphs 331–338 on ‘mobile equipment’. Paragraph 334 clearly suggests a twofold solution:

1) A leasing arrangement without an FDI relationship. Paragraph 337 notes that some leasing arrangements may make it difficult to determine whether the ship is being used under an operational lease or whether it has been effectively sold to the enterprise that operates it (that is, under a financial lease).

2) The entire operation of a ship in a territory outside the one in which its operator is incorporated. In this circumstance, the activity in the economic territory where the ship operates is a direct investment enterprise (if it meets criteria of a branch) that is owned by a direct investor located in the territory where the operator is incorporated.
Further to OECD BD4 paragraph 335:

‘…an owner may establish an incorporated or unincorporated enterprise that operates the ship. The country of the (affiliated) operator may differ from that of the owner, in which case a direct investment relationship exists. When the ship operations occur in international waters, the activities should be attributed to the economy in which the operator maintains residence.’

OECD BD4 (paragraph 336) states activities of ship management companies:

‘The classification of management offices and business promotion and ticket sales offices also depends upon the criteria listed for the determination of, firstly, the existence of an institutional unit and then for a direct investment enterprise. In some circumstances, they will qualify for classification as direct investment and, in other circumstances, they will not. Under the criteria used to determine the existence of direct investment (see Chapter 3), a distinction should be made between those enterprises that engage in real economic activities and have income statements, etc., and units that are set up to increase sales of the institutional units that established them but that have no sales of their own, such as ticket sales offices and business promotion offices’.

When analysing the nature of the parties involved, it is important to consider the ‘Statistical classification of economic activities in the European Community’, NACE Rev. 2. This sets out the appropriate classification of the economic activity for companies engaged in maritime activities, which is especially important for producing and disseminating accurate direct investment data by activity.

According to this guide, a company that primarily transports passengers/freight by water or rents out ships with crew should be classified under ‘water transport activity’ (H.50.); a company that rents out a ship without crew should fall under ‘rental and leasing of water transport equipment’ (N.77.34); and a management company should fall under ‘support activities for transport’ (H.52.2).

50.10 Sea and coastal passenger water transport. This class includes:
- transport of passengers overseas and coastal waters, whether scheduled or not:
  o operation of excursion, cruise or sightseeing boats
  o operation of ferries, water taxis etc.
- renting of pleasure boats with crew for sea and coastal water transport (e.g. for fishing cruises)

This class excludes:
- restaurant and bar activities on board ships, when provided by separate units, see 56.10, 56.30
- renting of pleasure boats and yachts without crew, see 77.21
- renting of commercial ships or boats without crew, see 77.34
- operation of ‘floating casinos’, see 92.00

50.20 Sea and coastal freight water transport. This class includes:
- transport of freight overseas and coastal waters, whether scheduled or not
- transport by towing or pushing of barges, oil rigs etc.
- renting of vessels with crew for sea and coastal freight water transport

This class excludes:
- storage of freight, see 52.10
- harbour operation and other auxiliary activities such as docking, pilotage, lighterage, vessel salvage, see 52.22
- cargo handling, see 52.24
- renting of commercial ships or boats without crew, see 77.34

To assist data compilers, Chapter 5 goes into further detail on challenges with identifying the economic owner of a ship.

OECD BD4 (paragraph 331) states that ‘The operator of mobile equipment (such as ships, aircraft,
gas and oil drilling rigs) that operate within a single economy for at least one year and that fulfill the criteria for treatment as an unincorporated direct investment enterprise should be treated as direct investment branches’.

OECD BD4 paragraph 332 explains that ‘Various entities may be involved in the provision of shipping and other transportation services. For shipping, the following entities may be involved:

- **Owner** – holds an asset (the ship) and may be engaged solely in a leasing activity, *i.e.*, the leasing of the ship to an operator.
- **Operator** – is involved in shipping activities such as fishing, drilling or transporting freight and passengers.
- **Ticket sales or business promotion offices** – established either by the owner of the ship (who is seeking operators) or by the operator of the ship (who is seeking passengers, freight, or other business).

OECD BD4 explores shipping companies’ activities further. Paragraphs 331–338 deal with ‘mobile equipment’, and paragraph 334 clearly states that ‘If the owner and the operator are the same entity (such as when the owner operates the ship in its own economy of residence), then there is no direct investment. If the owner and the operator are not the same entity (or are not related), then they are separate institutional units. The owner will typically receive a fee from the operator, reflecting the payment (rental services) for the use of the vessel. In this case, the owner is a lessor, and is not a provider of transportation services. The operator of the vessel provides transportation services; it receives revenues for transporting passengers and/or freight, pays wages to crew members (who may be residents of a different economy than the operator), and incurs other transportation–related expenses including port expenditures. The relationship between the owner and the operator of the ship is essentially that of a lessor and its lessee, not that of direct investor and a direct investment enterprise, though it is possible that they could be in a direct investment relationship if the lessor owns at least 10% of the voting power in the lessee.’

The OECD BD4 suggests a twofold solution:

1) **a leasing arrangement without an FDI relationship.** Paragraph 337 indicates that ‘…different types of leasing arrangements may exist that can make it difficult to determine whether the ship is being used under an operating lease or whether it has been effectively sold to the enterprise that operates it (that is, under a financial lease)’.

2) **In line with paragraph 337** ‘…a ship may operate entirely in an economy outside the one in which its operator is incorporated. In this circumstance, the activity in the economy where the ship operates is a direct investment enterprise (if it meets criteria of a branch) that is owned by a direct investor located in the economy where the operator is incorporated’.

According to paragraph 335, an owner may establish an incorporated or unincorporated enterprise that operates the ship. The country of the (affiliated) operator may differ from that of the owner, in which case a direct investment relationship exists. When the ship operations occur in international waters, the activities should be attributed to the economy in which the operator maintains residence.

Paragraph 336 refers to activities of ship management companies, stating that ‘The classification of management offices and business promotion and ticket sales offices also depends upon the criteria listed for the determination of, firstly, the existence of an institutional unit and then for a direct investment enterprise. In some circumstances, they will qualify for classification as direct investment and, in other circumstances, they will not. Under the criteria used to determine the existence of direct investment, a distinction should be made between those enterprises that engage in real economic activities and have income statements, etc., and units that are set up to increase sales of the institutional units that established them but that have no sales of their own, such as ticket sales offices and business promotion offices’.

### 2.6 Recording of transactions related to sea transport

#### 2.6.1 General considerations

According to the BPM6, the key condition for recording a transaction in the balance of payments is that the transaction must take place between residents and non-residents (paragraph 2.2). The manual further explains that to determine this, the compiler must have information on the identities of both parties, or sufficient information to identify the units’ place of residence (as mentioned above). The
BPM6 also introduces the term ‘economic ownership’ (paragraph 3.41.) explaining that to accurately determine the time of recording, one must have information on the time of the change in economic ownership.

Balance of payments transactions are classified according to the nature of the economic value provided, either as goods or services, primary income, secondary income, capital transfer, non-produced non-financial assets, financial assets or liabilities. For the maritime cluster, activities are generally recorded in the goods and service account, the primary income account and the financial account.

When a ship’s economic owner changes, according to the recommendations given for the balance of payments, the ship should be recorded under goods/general merchandise (if it is not included in goods under merchanting, construction, and government goods and services). See BPM 6 paragraph 10.23 for further details. The agent’s commission on ship sales (if it can be determined) should be recorded as services, under trade-related services (BPM6 paragraph 10.158).

A key consideration for the compiler when recording these transactions is the difference between an operating and a financial lease. Unlike for an operating leasing where the economic owner is also the legal owner of the goods, for a financial lease the economic owner is the lessee and a change in ownership occurs at the start of the lease and should be recorded in the balance of payments (BPM6 paragraph 10.17 (f.)).

Recording the financial lease is the same as recording a loan transaction (in both cases the lessor is treated as giving a loan to lessee). The transactions are recorded on an accrual basis in the primary income account and financial account, while the payments of the principal and the interest of the financial lease are recorded in the financial account, under other investments, loans, or within the direct investments, as intercompany lending, if the lessee and the lessor are in a direct investment relationship. If one of the parties (typically the lessor) is a financial corporation, then the financial lease may affect the financial services recorded in the services account, as financial services indirectly measured (FISIM) (for more on FISIM see BPM6 paragraphs 10.126–10.136).

When recording the change in ownership of high value capital goods, such as ships, specific rules apply if the transaction takes several months. As with any other goods, the compiler should record the transaction when the economic ownership is transferred from the seller to the buyer. If the process takes longer, the transfer of the ownership may either be progressive or in full upon delivery of the goods. The compiler should record the transactions accordingly, and any discrepancies between the time of change in ownership and time of the payments should be recorded in accounts receivable/payable (more on this in BPM6 paragraphs 10.28 and 5.71).

If there is no change in economic ownership, as with operating leasing, a key consideration when classifying the shipping activities is whether the leasing (rental) or charter of the ship includes a crew or not.

**Box 4: Key conclusion**

The compiler should keep in mind that leasing or chartering a ship without a crew should be recorded as a service under other business services - and not under transportation services. Shipping transportation services include rentals, charters, and leases of ships (vessels) with crews for transporting passengers or freight. The cleaning of transport equipment (the ships) is also included under transport services, unlike ship maintenance and repairs which is included under maintenance and repair services.

Freight insurance is included under insurance services, and not under transport services. On the insurance (reinsurance) of the transport equipment itself (ships, vessels), compilers should be aware that for high-value items such as ships, cross-border insurance (reinsurance) is particularly common and can very high, especially for smaller economies. When recording transactions made by carrier crews when stopping off or during lay overs, compilers should consider the BPM6 (paragraph 4.122) which states that crews of ships that operate outside a territory or across several territories are treated as being residents in their home base territory, even though they may spend most of the time in a different location. Therefore, any goods procured by a ship’s crew for their own use should be included under business travel.

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(9) Decisions on the exact recording of each transaction depends on the specific situation, the practical and legal constraints, and relative size of the transaction, which must be determined in each economy and may explain any departures from the guidelines.

(10) If the debt is not recognised between affiliated financial institutions (deposit-taking corporations, investment funds, and other financial intermediaries, except insurance corporations and pension funds).

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Box 5: BPM6 CG references to transport services

BPM6 CG, Chapter 12 ‘Services’, section ‘Transport’ stipulates:

‘12.27 To properly record transport services in the balance of payments, it is necessary to distinguish between the owner of mobile equipment\(^{(1)}\) and the operator of the equipment. The owner is generally the company that has legal title to the equipment. The company that controls the operation and movement of the equipment is regarded as the operator. The operator is usually responsible for supplying a crew, maintaining equipment in proper working order, and deciding when, and to which location, the equipment will be moved.

12.28 The owner and the operator may be the same or different companies. As separate companies, they may be residents of different economies. In some cases, a chain of leasing arrangements may separate the owner from the operator of the equipment. As in a financial lease, the lessee of mobile equipment is considered the economic owner for balance of payments purposes, because a change of ownership is presumed. If a parent company transfers mobile equipment to a branch located abroad, the branch is – for balance of payments purposes – considered the owner if the equipment is recorded in the books of the branch.

Ships registered under flags of convenience should be attributed to the legal owners; however, the flags of convenience used by companies do not determine the residence of the owner or operator. The residence of the company that operates the ships is determined according to general criteria as defined in the BPM6, paragraphs 4.131–4.135, and it may not necessarily be the same as the company that owns the ships, such as where the ship operator has an operating lease from the ship owner, who is resident in another economy (most commonly encountered are ships, aircraft, drilling platforms, and railway rolling stock).

12.29 Owners and operators may enter into a number of leasing or chartering arrangements. Various terms are used to describe these arrangements, but a broad description should suffice for purposes of the Guide. For balance of payments purposes, only leases with crew are included under transport; operating leases (without crew) and financial leases are classified elsewhere (see also section ahead on operating leasing).

12.30 There are bare boat or bare bottom charter arrangements whereby an owner leases a vessel to an operator, who is responsible for equipping the vessel and supplying the crew.

12.31 These leases usually cover long periods but may also cover short periods. For all lease types, the compiler should make sure the leases are leases with crew and not operating (without crew) or financial leases, before including them under transport. If, for example, a vessel is legally owned by a bank or other type of financial institution, the compiler should, for balance of payments purposes, usually regard the vessel as being economically owned by the lessee (financial lease).

12.32 There are time charter arrangements whereby a vessel is leased to an operator who provides a crew. The bare boat or bare bottom charter is a form of time charter. A time charterer may also lease a vessel from a bare boat charterer. For balance of payments purposes, the time charterer should be regarded as the operator, although if there are several time charters involved, the charterer supplying a crew is regarded as the operator.

12.33 In addition, there are voyage charters. For example, an exporter or an importer may hire, for a single voyage, a vessel to ship a bulk commodity such as wheat or minerals. The voyage charterer has no responsibility for operation of the vessel and is not, therefore, considered the operator. A variation of voyage charter, space charter, or slot charter consists of an arrangement in which space on the vessel, rather than the whole vessel, is hired. Payments for voyage, space, and slot charters should be recorded as freight under transport.\(^{(1)}\)

\(^{(1)}\) In this case, and provided the equipment is rented without the crew, the compiler should record operating lease payments, which are made by the operator to the owner, under other business services—operating leasing services.
2.6.2 Recording in ITGS and national accounts

How to treat different combinations of legal and economic ownership in ITGS and national accounts is specified in the final report of the 'Trade in ship and aircraft' taskforce. For details of the scheme, see the figure below Figure 5: Scheme of the statistical treatment of ships in ITGS and national accounts

Figure 5: Scheme of the statistical treatment of ships in ITGS and national accounts

PART A

DECISION MAKING ON WHETHER THERE IS TRANSFER OF ECONOMIC OWNERSHIP

ALL POSSIBLE TRANSACTIONS REGARDING TRANSFER OF OWNERSHIP OF SHIP

Non-resident Company transfers legal and economic ownership to a resident company (Purchase of ship)

Non-resident Company transfers only economic ownership to a resident company (Leasing of ship with transfer of economic ownership)

Resident Company transfers legal and economic ownership to non-resident company (Sale of ship)

Resident Company transfers only economic ownership to non-resident company (Leasing of ship with transfer of economic ownership)

IMPACT OF TRANSFER OF OWNERSHIP IN NATIONAL ACCOUNTS AND FOREIGN TRADE STATISTICS IN COUNTRY OF RESIDENT COMPANY

a) Increase in Imports of ships
   b) Increase in Gross Fixed Capital Formation
   c) Increase in Capital Stock

PART B

Treatment in National Accounts of cases where a resident company (RC) is involved in ship ownership or ship management

RC is the legal and economic owner of a ship and purchases commercial or other ship management services from other RC against a fee

RC is the legal and economic owner of a ship and purchases commercial or other ship management services from a non-resident company (NRC) against a fee

RC is only the legal owner and the economic owner is another RC (leasing with transfer of risks and awards)

RC is only the legal owner and the economic owner is NRC (leasing with transfer of risks and awards)

NRC is the legal and economic owner and purchases commercial or other ship management services from a RC

NRC is the legal owner and NRC is only the economic owner and purchases commercial or other ship management services from a non-resident company (NRC) (leasing with transfer of risks and awards)

TREATMENT IN NATIONAL ACCOUNTS OF COUNTRY OF RESIDENT COMPANY

Source: Eurostat
2.6.3 Recording in balance of payments statistics

A voyage charter involves hiring a vessel and crew for a voyage between a loading and a discharging port. Under this arrangement, the charterer pays the vessel owner on a per-ton or lump-sum basis, and the owner pays the port costs (excluding stevedoring), fuel costs and crew costs. This arrangement does not usually involve a change in economic ownership and should therefore not be included in ITGS (although it should be included in international trade in services statistics (ITSS)). However, the substance of the contract should be verified.

A time charter involves hiring a vessel for a specific period of time. The owner still manages the vessel, but the charterer selects the ports and directs the vessel on where to go. The charterer pays for all the fuel the vessel consumes, port charges, and a daily ‘hire’ to the owner of the vessel. This arrangement does not usually involve a change in economic ownership and should therefore not be included in ITGS (although it should be included in ITSS). However, the substance of the contract should be verified.

Demise or bareboat charter arrangements are completely different from the previous two. The charterer takes full control of the vessel along with the legal and financial responsibility for it. The charterer pays for all operating expenses, including fuel, crew, port expenses and hull insurance. The demise arrangement shifts the control and possession of the vessel away from the owner, but it can be difficult to determine whether there is a change in economic ownership or not.

The BPM6 CG (paragraph 12.31) explains that these leases usually cover long periods, although they may also cover short periods. For all lease types, the compiler should make sure the leases are leases with crew and not operating (without crew) or financial leases, before including them under transport. If, for example, a vessel is legally owned by a bank or other type of financial institution, the compiler should, for balance of payments purposes, usually regard the vessel as being economically owned by the lessee (financial lease). Note that if the loan is not performing, the bank may also become a legal owner once it has activated a mortgage to legally obtain the ship. This situation is more common in some countries than others.

The BPM6 CG recommends the International Register of Ships as a source for international shipping surveys. According to paragraph 3.33, for each vessel this register lists a reference number, vessel name, country of registration (or national flag), owner’s name and address, vessel description, type (tanker, passenger cruise vessel, bulk carrier, etc.) and capacity. A compiler could use register data in surveying operations of individual vessels or in linking individual vessels to owners. The type of agreement between legal owner and operator should be examined before deciding on which company is the economic owner of the ship. In a shipping register, the name of the lessor (typically a financial institution) is usually recorded for a vessel operated under a financial lease. It is important to recall that for balance of payments purposes, it is the operator (the lessee), not the legal owner, that determines the provider of the transport services.

It is recommended to use multiple data sources (including administrative ones) depending on the availability in a given country. Note that Lloyd’s Intelligence List provides only a single type of country (namely the country of domicile) for each type of ownership, while IHS Maritime & Trade – the organisation that issues the International Maritime Organisation (IMO) numbers, distinguishes between country of registration, country of domicile and country of control.

2.6.4 Stylized recording of voyage charter contracts

The starting point for the compilation is to use a GENCON standard contract as a model for a voyage charter form which is common for bulk shipments (grains, coal, wheat, minerals etc.) (see BPM6 CG, paragraph 12.33).
Methodological framework for the compilation of statistics on sea and air transport

2.6.4 

Box 6: Case presentation voyage charter

The operator (voyage charterer / ship manager) resident in Germany enters into a contract with a legal owner of a vessel resident in Cyprus (single purpose vehicle; owner) for the transportation of cargo from Lubeck (loading port) to Singapore (discharging port) on a specified vessel (vessel’s name: Queen of the Netherlands). The freight cost is calculated according to the quantity of cargo loaded (total: EUR 5,000,000). The vessel is explicitly specified in the contract and the legal owner does not have substitution rights. The cargo will occupy practically all of the vessel’s capacity. The contract specifies the nature of the cargo to be transported on the vessel and the pickup and delivery dates. The legal owner operates and maintains the vessel and is responsible for the safe passage of the cargo on board the vessel. The operator (voyage charterer / ship manager) is prohibited from hiring another operator for the vessel or operating the vessel themself during the term of the contract.

Source: Eurostat

In this case study, the vessel is explicitly specified in the contract, so the legal owner does not have the right to substitute that specified vessel. The operator (voyage charterer / ship manager) can obtain all of the economic benefits from use of the vessel during the period of use. The cargo will occupy practically all of the vessel’s capacity, which will prevent other parties from obtaining any economic benefit from the use of the vessel. However, the operator does not have the right to control the use of the vessel because it does not have the right to direct its use. The operator does not have the right to direct how and for what purpose the vessel is used. How and for what purpose the vessel will be used (i.e. to transport specified cargo from Lubeck to Singapore within a specified timeframe) is stipulated in the contract. The operator does not have the right to change how and for what purpose the vessel is used during the period of use. The operator has no other decision-making rights about the use of the vessel during the period of use and has the same rights regarding the use of the vessel as if it were one of many operators transporting cargo on the vessel.

The voyage charterer has no responsibility for the operation of the vessel and is not, therefore, considered the operator. Payments from the voyage charterer to the legal owner should be recorded as freight (sea transport) under transport e.g. in the quarterly balance of payments: S.11 non-financial corporation resident in Germany debits EUR 5,000,000; S.11 non-financial corporation resident in Cyprus: credits EUR 5,000,000.

Given that the substance of the contract has been verified, this arrangement does not indicate change of economic ownership.

2.6.5 

Stylized recording of time charter contracts

The starting point for the compilation is a BIMCO standard time charter party for container vessel BOXTIME 2004. An alternative form is provided by the New York Produce Exchange (NYPE) 2015: Time Charter Form; Reference: BPM6 CG paragraph 12.29; BPM6 CG paragraph 12.32; BPM6 10.77.

Box 7: Case presentation time charter

The customer (time charterer) resident in France enters into a contract with a legal owner resident in Malta (single purpose vehicle) for the use of a specified vessel (vessel’s name: Aphrodite I) for a five-year period. The vessel is explicitly specified in the contract and legal owner does not have substitution rights. The customer (time charterer) decides what cargo will be transported, and whether, when and to which ports the vessel will sail, throughout a specified period of use, subject to trading restrictions specified in the contract. Those trading restrictions prevent the customer (time charterer) from sailing the vessel into waters at a high risk of piracy or carrying hazardous materials as cargo. The legal owner operates and maintains the ship and is responsible for the safe passage of the cargo on board the ship. The customer (time charterer) is prohibited from hiring another operator for the ship during the term of the contract or operating the ship itself.

Source: Eurostat

In this case study, the contract contains elements of an operating lease. This time charter is not a financing transaction, as it does not cover the expected useful life of the vessel. The legal/ship owner pays the operating costs (i.e. crew, maintenance and repair of the vessel) and remains the economic owner, while the operator/charterer/ship manager directs the commercial operations of the vessel.

Payments for this time charter between the time charterer and the legal owner should be recorded as freight (sea transport) in the quarterly balance of payments: S.11 non-financial corporation resident in
France debits EUR 20,000,000; S.11 non-financial corporation resident in Malta: credits EUR 20,000,000.

Given that the substance of the contract has been verified, this arrangement does not indicate a change of economic ownership.

2.7 Data sources for the compilation of statistics on sea transport

2.7.1 References in international guides

For the work of data compilers, it is crucial to identify the possible data sources, in order to evaluate their reliability and comparability. The BPM6 CG, in Chapter 3 ‘Specific Surveys for Balance of Payments and International Investment Position’, indicates possible data sources for recording of transport and associated services, including:

- administrative records/registers (government authorities collecting port charges);
- international transactions reporting system (ITRS);
- business and transport surveys (resident companies, local branches of non-resident companies).

Table 4: Methods for estimating transport, from Chapter 12 ‘Services’ of the BPM6 CG provides additional information on items in transport services and outlines data sources and compilation methods.

<table>
<thead>
<tr>
<th>Description</th>
<th>Source and method of compilation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea, air, and other transport Passenger</td>
<td>Services Provided by Resident Transport Operators (credit) Data could be collected—through an enterprise survey or an ITRS—from resident operators. Fares earned from nonresident passengers on domestic transport should be excluded and included in travel. Alternatively, a data model based upon the number of nonresident passengers carried by resident operators, passengers economies of origin and destination, and average fare rates could be used.</td>
</tr>
<tr>
<td></td>
<td>Services Provided by Nonresident Transport Operators (debit) Data could be collected—through an enterprise survey or an ITRS—from branches of nonresident operators or ticket selling agents. Ideally, data should be collected on earnings, rather than a ticket sales basis. Gross data should be recorded—that is, before the deduction of commissions. Alternatively, a data model on numbers of resident passengers carried by nonresident operators and classified by destination and data on average fares could be used.</td>
</tr>
<tr>
<td>Freight</td>
<td>Export Freight Services Provided by Residents (credit) Data could be collected, through an enterprise survey or an ITRS, from resident operators. If an ITRS is used, freight paid on exports by exporters to resident operators should be measured and added to freight on exports. Alternatively, a data model could be used. Import Freight Services Provided by Nonresidents (debit) This item could be collected through an ITRS if it provides a breakdown of import costs and if the amounts paid to resident operators by nonresident exporters are deducted. Alternatively, freight on imports could be measured by approaching, via an enterprise survey, branch offices and agents for nonresident operators. Another way to derive this item is to estimate total freight on imports (see Table 12.2 for various methods) and to deduct from this estimate the income earned by resident transport operators from freight on imports. The latter item could be collected through an enterprise survey.</td>
</tr>
</tbody>
</table>

Table 4: Methods for estimating transport
Methodological framework for the compilation of statistics on sea transport

Supplementary to the information provided in the BPM6 CG, Figure 21 illustrates in a simplified way the official statistics involved and some examples of primary data sources that might be used in the compilation of maritime activities statistics.

There are numerous commercial data providers and the national data compilers are advised to take advantage of all available data sources in order to have a clear picture. The BPM6 CG proposes to use the Lloyd’s Intelligence List as a possible data provider. However, the data compilers should bear in mind that concepts used in the different commercial databases might not be compliant with the methodological requirements of the international manuals, the coverage of companies in the registers might not be exhaustive and there might be legal limitations on using or disseminating data subject to confidentiality.

For example, the IHS Maritime & Trade issues the International Maritime Organization (IMO) numbers and distinguishes between country of registration, country of domicile and country of control, unlike the Lloyd’s Intelligence List which provides only a single type of country (the country of domicile) for each type of ownership, and this is the country of head office. Furthermore, each data provider records several types of ownership (and country types) for each vessel as shown. The exhaustive definitions used by each data provider are presented in this handbook.

Another possible data source might be the different associations or federations from which crew costs might be estimated, taking account of International Transport Workers’ Federation collective agreements and market data.

Useful information could be collected further from:

- Moore Stephens (http://www.moorestephens.com/sectors/shipping) shipping confidence survey;
- The Baltic Exchange (http://www.balticexchange.com);
- ECSA (http://www.ecsa.eu/) European Community Shipowners’ Association;
- BIMCO (https://www.bimco.org) standard shipping contracts.

It is the responsibility of the data compiler, using expert interpretation, to make the best use of the data available from the different sources. To help data compilers, Chapter 5 presents some examples for examining the available information and check lists for identifying the economic owner of a ship.

This chapter outlines the use of various available data sources to compile statistics on sea transport. In order to reduce asymmetries, this handbook recommends that the use of this data sources should be coordinated between countries where shipping transactions are strongly interlinked so that the actions of countries to address asymmetries could be further aligned.
Figure 6: Simplified schema of identified data sources

Examples of data sources and related statistics of shipping activities

<table>
<thead>
<tr>
<th>COMMERCIAL DATA PROVIDERS</th>
<th>ADMINISTRATIVE DATA</th>
<th>FINANCIAL CORPORATION</th>
<th>NON FINANCIAL CORPORATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lloyd’s Intelligence List, World fleet Statistics, ClarkSea Index, His Maritime &amp; Trade</td>
<td>National ships register, Tax declarations, Register of shipping companies, Port authorities</td>
<td>Loans granted by resident MFIs to ship owners, Financial leasing</td>
<td>Shipping companies, Shipping directories, Orders books, Management companies, Manufacturing companies, Operating leasing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STRUCTURAL BUSINESS STATISTICS</th>
<th>NATIONAL ACCOUNTS</th>
<th>Balance of Payments and International Investment Position</th>
<th>International Trade in Services Statistics</th>
<th>Foreign Direct Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover; Value added at factor costs; Enterprises; Personal costs; Persons employed</td>
<td>GDP, Output, Gross Value Added, Compensation of employees/Employment</td>
<td>Transport services, Other business services, Loans and related payments, Equity and reinvested earnings, Insurance services, Deposits, FISIM</td>
<td>Sea Transport services, Other business services, FISIM</td>
<td>Water Transport, Financial services, Management consultancy</td>
</tr>
</tbody>
</table>

Source: Eurostat
Country members can use traditional sources to record revenues related to shipping activity, such as direct reporting, bank data, national and international registers and other administrative sources. However, given the multi-territory nature of cross-trade shipping activity, additional data based on international databases may be needed in many circumstances, especially in the presence of brass-plate companies, to adequately record the revenues. The selection of sources to be used by each country depends on the extent of shipping activities taking place in the specific country and the availability of data from shipping companies, banks and/or administrative sources, and may vary depending the balance of payments item.

Thus, it might be the case that some countries receive adequate data from the shipping companies themselves, and the use of international databases is not required or is required for only some of the balance of payments items. However, given the multi-territory profile of cross-trade shipping activity, it is highly probable that countries with a large merchant fleet may require additional information, besides direct report and bank data, to adequately record shipping transactions. For this purpose, we provide below an indicative list of data sources that can be used to obtain related information. Note that this list was compiled on basis of the experience of the task force members and that there may be additional sources that could offer reliable data on an international basis.

In order to adequately record the revenues from the activities in the cluster, one needs, on a vessel basis, (a) to identify if the vessel is hired and (b) to calculate the freight revenues. When identifying if the vessel is hired, to our knowledge this information is not recorded at any international database at a regular, per vessel, basis. However, a good indication is the current draft of the vessel, as well as the port movement. Typically, a vessel with current draft above 20%-30% of its max draft, or a vessel with regular movement from port to port, is expected to be hired. This information can be found in international databases such as ‘Lloyd’s List intelligence’, ‘IHS Maritime & Trade’ or ‘MarineTraffic’. The second variable needed is the expected freight revenues for the vessel, provided it is hired. ‘Clarksons Shipping Intelligence Network’, as well as ‘Drewry’ provide detailed monthly freight and time charter rates by type of vessel (tanker, bulker, etc.) and deadweight.

2.7.2 List of suggested data sources that can be used for recording shipping transactions

Traditional data sources:
- Direct reporting
- Bank transactions data
- Shipping registries and maritime ministry data
- Tax authorities
- Customs

International databases (submission fee required):
- IHS Maritime & Trade: Provides detailed data (on a vessel basis) for various types of ownership, vessel characteristics, new deliveries/deaths, port movement, crew, consumption, speed, draft etc. Also provides data on company profiles and port terminals. (https://maritime.ihs.com)
- Lloyd’s List intelligence: Provides detailed data (on a vessel basis) for various types of ownership, vessel characteristics, new deliveries/deaths, port movement, speed, draft etc. Also provides data on company profiles and port state control information. (https://www.lloydslistintelligence.com/)
- Clarksons Shipping Intelligence Network: Provides detailed monthly freight and time charter rates by type of vessel (tanker, bulker, etc.) and deadweight. Also provides indicative newbuild, secondhand and scrap vessel prices by type of vessel, deadweight and year build. Also provides aggregate data on new deliveries, orderbook and losses. (https://sin.clarksons.net/home)
- Drewry: Provides detailed data and estimates on operating expenses by vessel type and build year, such as manning, insurance, stores and spares, maintenance, administrative costs and
management fees. Also provides monthly freight and timecharter rates by type of vessel and deadweight, as well as newbuild and secondhand vessel’s prices. Also provides aggregate data on new deliveries, orderbook and demolitions. (https://www.drewry.co.uk/)

- MarineTraffic: Provides real time global ship tracking data, as well as vessels’ characteristics data. (https://www.marinetraffic.com/)

- VesselsValue: Provides vessel valuation data, by incorporating ship specifications, real time sales and freight earning sentiments, to provide estimates close to reported sales. (https://www.vesselsvalue.com)

- Bloomberg: Provides, by vessel, IMO number, vessel’s name, deadweight, flag, max draft, vessel type and for many vessels (i.e. some vessels have non available information) a name for the beneficial owner, last seen date, navigation status (under way/moored/anchored), region last seen, reported speed, current draft and destination. (https://www.bloomberg.com)

- BIMCO: Provides standard contracts and clauses templates for the shipping industry. (https://www.bimco.org/)

**Other publicly available information**


- International Maritime Organization (IMO), Global Integrated Shipping Information System: This searchable research tool provides publicly accessible information about specific ships, ports, maritime security, and piracy. Free registration is necessary for basic access. (https://gisis.imo.org/Public/Default.aspx)

- Port Tariffs: Pricing policy of largest ports and canals worldwide is publicly available. Indicative list:
  - South Africa-Transnet: https://www.transnetnationalportsauthority.net/Finance/Pages/Port-Tariffs.aspx
  - Gibraltar: http://www.gibraltarport.com/tariffs
  - Suez: https://www.suezcanal.gov.eg/English/Tolls/Pages/TollsTable.aspx
  - Panama Canal: http://www.pancanal.com/eng/maritime/tariff/1010-0000.pdf
3. INSTITUTIONAL UNITS PROVIDING SEA AND AIR TRANSPORT

3.1 Introduction

A striking feature of the sea and air transport is the different character of the companies operating in different parts of these clusters. Various groups are involved directly or indirectly in the transport chain. The direct players are the ship owners, airlines, the operators and the management companies (responsible for different management tasks for the operation of the aircraft or ship).

For the data compilers it is very important on the one hand to identify the different players, their relationships, exact roles and level of involvement and on the other hand their principal place of economic interest (the economy where they are operating). To ensure consistent balance of payments reporting it is essential to make a clear distinction between the legal, economic and beneficial owner of the vessels and aircraft.

3.2 Legal owner

ESA 2010 stipulates that the legal owner of a vessel or aircraft is the institutional unit entitled by law and sustainable under the law to claim the benefits associated with the vessels/ships.

The typical legal structure of a shipping company is that each ship is owned by one company and/or by subsidiaries. The usage of SPV applies also to aircraft, but are exemplified in below for vessels. Nearly all ships are owned by ‘single purpose/ship companies’ (SPC/SPV), i.e. the SPC/SPV is the legal owner of the ship. The ship owner usually creates a single company for each ship. The intention is to limit the risks related to the operation of the ship/fleet to this single asset. In other words, any event affecting the ship (accident, fine, etc.) are restricted to that company and that ship, and all related expenses are covered solely by that single company and its property. If the value of the vessel is insufficient to cover these expenses, then the owner cannot cover them with another vessel that he owns.

The most common shipping group structure is a single-vessel company (this is the company that owns the ship and provides or outsources transport services to the operator) and a management company responsible for the vessel’s management tasks. This structure protects the legal owner and the other (sister) single-vessel ship-owning companies from liability due to the operations of a particular vessel. This is called the ‘sister-ship clause’. Under this arrangement, the parent holding company which wholly owns the single-vessel ship-owning subsidiaries raises funds or takes out mortgages – see examples in Chapter 3.7.6.

To sum up, the legal owner buys the ships, taking out and repaying the necessary loans. Only the legal owner can have a mortgage in their name and repay the loan. In most cases, when banks grant a loan to the legal owner they also require the owner to open an operating account for the financed vessel and conduct all loan and interest repayment transactions through this account. The registered legal owner is always responsible for paying back the loan.

To cover all of their ship’s maintenance costs, the ship owner should exploit the vessel, e.g. find cargo.
to transport. The ship owner is free to decide whether to manage the ship themselves with their own ‘service/management companies’, or to hire a management company. An owner who does not have access to cargo, can charter the ship to an operator who pays them a stipulated daily rent for using the ship.

If a ship is under a financial leasing agreement, the company exploiting the ship commercially is its economic owner, while the lessor (bank or another financial institution) is the legal owner. The relationship between the lessee and the leasing company is regulated by a leasing contract (see Chapter 4 on contractual agreements for more information). In the most cases, the dividends are paid by the registered/legal owner (single purpose company/vehicle) to the ultimate owner (ultimate beneficiary of the ownership of the ship).

### 3.3 Economic owner

The economic owner is the institutional unit entitled to claim the benefits from using the vessel for a given economic activity given that it also accepts the associated risks. A person or company having economic ownership of a vessel through a bareboat charter\(^{(12)}\) (or a financial lease agreement) to operate and exploit it commercially is also the economic owner.

For the balance of payments, national accounts and International trade in goods and services statistics, the key consideration is who has the **economic ownership** of the asset (as stipulated in the Compilers guide on European statistics on international trade in goods). The economic ownership is defined as the right of natural person(s) or legal person(s) to claim the benefits associated with the use of a ship in the course of an economic activity by virtue of accepting the associated risks (ESA 2010, paragraph 7.17). To find in practice the economic owner, the Compilers guide on European statistics on international trade in goods recommends in its paragraph 574 using a combination of indicative criteria, such as:

1. The entity accepts all or most of the operating risks (losses) related to the use (operation) of the ship and receives all or most of the economic benefits (profits) from the use (operation) of the ship (Commission Regulation (EC) No 1982/2004, Art. 17(1)(c); Commission Regulation (EU) No 113/2010, Art. 19(1)(c).
2. The entity is responsible to provide (pay for) repair and maintenance of the ship.
3. The entity has the option to purchase the ship at the end of the lease period at a price that is lower than the fair value.
4. The entity leases the ship so that the present value of the lease payments amounts to the fair value of the ship at the inception of the lease.
5. The entity leases the ship for the major part of its economic life.
6. The entity has the unilateral right to terminate the lease contract.
7. The entity has responsibility for replacing the vessel/aircraft in the event of serious and prolonged breakdown.
8. The vessel/aircraft is leased by the entity from a purely financial intermediary, even if called an aircraft or ship leasing company;
9. The entity uses the vessels/aircraft in its main activity.

Paragraph 573, List of indicative criteria reads as follows: several indicators which may be used individually or in combination, enable compilers to identify the economic owner of a vessel/aircraft.

Some commercial registers and databases define the term ‘beneficial owner\(^{(13)}\). In statistical terms the beneficial owner is not equivalent to the economic owner, as the former is a trustee (on behalf of the legal owner) for legal (and not economic) purposes and has no economic interest.

Most beneficial owners are the mother companies of the legal owners of the ships (holding company
or family of major shareholders). The beneficial owner charters and holds the vessel in trust for the legal owner. The group beneficial owner is either the parent company of the registered owner of the vessel (the parent holding company), the name of the family of main shareholders, or the same company as the operator/ship-manager. It is the controlling interest behind the fleet. The beneficial owners (mother companies) who receive only dividends from the direct legal owners (SPV/SPC) of the ships are not considered as economic owners.

Generally, the flagging in/out of a ship is not considered to indicate a change in economic ownership. The flag of convenience is for the legal registration of the ship and the flag of a ship is not considered relevant for determining the residency of its owner or operator. However, the registration of a ship under a specific flag might be a trigger for further examination whether there was a change of economic ownership or not.

### 3.4 Operators

According to BPM6 CG (paragraph 12.27) the operator or the ship operating company is the company that controls the commercial operation and movement of the equipment (the ship). Therefore, the operator is the one providing the transport service and receiving revenues for transporting passengers and/or freight.

The operator is the company responsible for making commercial decisions on how, where and when the ship is used. As a direct beneficiary of the profits from the ship’s operations, this company may also be responsible for making purchasing decisions on bunkers and port services. Vessels within commercial pools are considered to be operated by the pool.

A medium to long-term time or bareboat charterer is considered to be the operator of the ship. For a bareboat charter, the charterer acts as operator providing the ‘transport of goods/passengers from point A to point B’, is responsible for the day-to-day operational management of the vessel, and in most cases directs the commercial operations of the ship. The charterer receives payment for providing the ‘transport of goods/passengers’ service (i.e. finding cargo for the ship) and pays the charter hire (a specified amount, usually a daily fee) to the ship’s owner. The bareboat charterer (in this case the operator) must pay insurance, crew expenses, costs for keeping the ship seaworthy, all taxes/duties, etc., while the mortgage is always paid by the ship owner.

The operator is sometimes referenced as ‘ship manager’, as in most cases these are the same entity. If a third company takes over some aspects of the vessel’s management, such as technical, financial or even commercial (however the ultimate decision for the asset deployment remains in the hands of the operator), then there is a distinction between ship manager and operator.

The registered/legal owner and the operator may be two separate institutional units. The registered/legal owner will typically receive a rental fee from the operator for the use of the vessel. In this case, the owner is a lessor, and not a provider of transportation services.

### 3.5 Ship management companies

Ship management companies\(^{(14)}\) are service providers. They are neither single purpose vehicles nor special purpose entities, according to the ESA 2010 (paragraph 2.17). That is to say, ship management companies have physical presence in the economy, own financial and non-financial assets, employ a significant number of people, have their own balance sheet and pay corporate taxes according to national taxation law.

The main management activities could be grouped as follows:

1. **Technical management** – technical supply, technical surveillance, maintaining equipment, etc.
2. **Commercial management** – includes different management services, such as: (i) issuing voyage instructions; (ii) accounting; (iii) contacts with operators; (iv) appointing port agents;

\(^{(14)}\) IHS Maritime & Trade gives the following definition for ship manager: ‘The company designated by the ship owner or charterer to be responsible for the day to day commercial running of the ship and the best contact for the ship regarding commercial matters. Including post fixture responsibilities, such as laytime, demurrage, insurance and charter clauses. This company may be an owner related company, or a third-party manager, whose purpose is primarily the management of ships for their ship-owning clients.’
(v) arranging surveys of cargo holds or tanks and cargo; (vi) estimating voyage costs; (vii) freight management; (viii) liaising with freight demurrage and defense associations, and (ix) consulting with owners and brokers during chartering negotiations. Such activities could be carried out anywhere and do not depend on the location of either the owner or the operator of the vessel.

3. **Crew management** – providing onboard crew and all related services.
4. **Ownership management** – equity in shipping, projecting, financing, equity, bookkeeping, cash management, etc.
5. **Safety management** – ensuring the safety of the ship and marine environment.

The management companies may be responsible for different aspects of the ship’s management (the various management tasks might be carried out by one company or by several, or even by the owner). The management companies might be located in the same or different countries depending on the specific needs (e.g. technical management in Germany, crewing in Cyprus or the Philippines, commercial management in Singapore). In other words, the management activities may be done within one legal/commercial entity (by the owner and/or by contract by third party companies), but also in separate entities (by contract/agreement).

The management by contract is provided ‘for and on behalf of the owner’ (the lessee or legal owner). The **BIMCO** system provides standard contracts (for ship workers, crew, etc.) that set out the relationship between the legal owner and management company. Reporting by the management companies is regulated under national legislation and differs from country to country. For example, according to the German Foreign Trade and Payments Act (Außenwirtschaftsgesetz – AWG) and Foreign Trade and Payments Ordinance (Außenwirtschaftsverordnung – AWV), the management companies must provide monthly reports to Deutsche Bundesbank on cross-border transactions, and claims and liabilities with the rest of the world for managed vessels.

### 3.6 Special Purpose Vehicles

#### 3.6.1 Introduction

A special purpose vehicle (SPV) also referred to as a special purpose entity (SPE) is defined as a legal entity created by the sponsor, originator or administrator to fulfil a temporary objective of the sponsoring firm, usually to balance financial risk. The sponsor or originator is usually a major investment bank, finance company or insurance company. Its powers are limited, and its life is intended to end when the purpose is achieved. This allows investors access to investment opportunities and provides a new source of revenue for the sponsoring firm. In sea transport, the term SPV is mainly used.

The SPV is a separate company with its own legal status and its own assets and liabilities. It can take the form of a corporation, trust, partnership or a limited liability company. In other words, an SPV is a vehicle whose operations are limited to the acquisition and financing of specific assets or liabilities. Here, we note the distinction between asset securitisations and liability securitisation.

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(15) BIMCO is the world’s largest international shipping association, providing a wide range of services. It has more than 2,200 members globally. BIMCO’s core objective is to facilitate the commercial operations of their members by developing standard contracts and clauses, as well as providing quality information, advice and education. Its headquarters is located in Denmark.
3.6.2 Distinction between asset and liability securitisation

The table below sets out the difference between asset securitisation and liability securitisation.

**Table 5: Asset and liability securitisation**

<table>
<thead>
<tr>
<th>Asset securitisation</th>
<th>Liability securitisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Undertaken by banks and finance companies.</td>
<td>• Undertaken by insurance companies.</td>
</tr>
<tr>
<td>• Involve issuing bonds backed by cash flows of income-generating assets</td>
<td>• Involve issuing bonds that assume the risk of a potential insurance liability</td>
</tr>
</tbody>
</table>

*Source: Eurostat*

For classification purposes, one way we can categorise SPVs is:

On balance sheet SPV – an entity whose financial statements are consolidated with the statements of its sponsor. Thus, the income/receivables are by some way transferred to the sponsor company.

Off-balance sheet SPV – an entity whose financial statements are not consolidated with the statements of its sponsor. So, the income/receivables are not transferred to the sponsor.

3.6.3 Legal form

Legally, a SPV can be established in the form of a corporation, trust, partnership or a limited liability company. A corporation is a legal entity separate and distinct from its owners, created as an artificial person to carry on the business of the sponsor. Trust is a legal form in which a fiduciary form is created for some property – the trustee holds the title of the trust property and the benefits of the trust are received by the beneficiary. Partnerships are for-profit business associations where each partner contributes agreed-upon payments or possessions for an agreed amount of shareholding. Lastly, a limited liability company is a form of partnership, where the maximum amount partners may lose in case of bankruptcy is limited to the amount invested by each partner. However, they may also be described as an *orphan SPV*, with no owners. Orphan SPVs are neither owned nor controlled by the person for whom the SPV is being established. Financial statements of orphan SPVs are not consolidated with the sponsoring company for accounting, tax or legal purposes.

3.6.4 Governance

SPVs are usually established in tax-free jurisdictions with low levels of supervision. The structure and transactions of an SPV are approved by the beneficiary Supervisory Board of Directors which also assigns the legal representative of the SPV. As SPVs have neither a physical office nor actual employees, they hire law and advisory firms for certain tasks. As well as providing corporate governance services to establish and administer SPVs, these firms provide SPVs with independent directors, managers and officers. They also provide administrative services such as preparing accounts and calculating taxes, phone answering and mail forwarding.

3.6.5 Main economic activities of special purpose vehicles

SPVs are involved in the following economic activities:

- Securitisation – SPVs are generally used to securitise loans and other receivables. For instance, risky mortgages are converted into marketable securities and sold to investors through SPVs.
- Risk sharing – SPVs are used to transfer the risk from the parent company to a separate orphan company and isolate the financial risk in the event of a default.
- Asset transfer – certain assets are either non-transferable or difficult to transfer. A company
may therefore create an SPV to own these assets. Should the company want to transfer these assets, it can sell the SPV as a package.

- **Financing** – SPVs can be used to finance a new project without raising the debt burden of the sponsoring company.
- **Raising capital** – SPVs can be used to raise additional capital at better borrowing rates. These favourable rates are given because the underlying assets are owned by the SPV, and credit quality is based on the collateral and the credit quality of the sponsoring firm.
- **Financial engineering** – another use of SPVs is to achieve off-balance-sheet accounting treatment to manipulate financial ratios and meet regulatory requirements.

**Figure 7: Stylized operations of SPVs**

Source: Eurostat

A defining feature of SPVs is that they help protect against bankruptcy. Their structure means that they are remote from the sponsoring firm so if the sponsoring firm enters into a default (bankruptcy) procedure, the sponsor’s creditors cannot seize the SPV’s assets.

### 3.6.6 Examples of holding structures

The legal ownership structure of ship-owning companies is often complex as it can involve more than one level of (vertical or horizontal) ownership, including mother subsidiary companies and several independent companies - each having a share in the single-ship brass plate company.

A holding structure can have headquarters and single purpose vehicles (SPVs) spread all over the world. The table below gives an example of a typical maritime holding structure. The residency of multi-territorial enterprises (2008 SNA, paragraph 4.13) is publicly available on the Nasdaq website.
Table 6: Example of a typical maritime holding structure

<table>
<thead>
<tr>
<th>Level I</th>
<th>Level II</th>
<th>Level III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holding in the headquarters (e.g. in Hamburg, Germany)</td>
<td>National holding</td>
<td>SPC/SPV</td>
</tr>
<tr>
<td>Subject to the German tax system.</td>
<td>May be situated anywhere in the world.</td>
<td>Registered in a country different than that of the mother company, mostly by citizens of that country.</td>
</tr>
<tr>
<td>May receive dividends from the other affiliated companies (such as FDI). However, the practice is to reinvest the dividends in the country where the SPVs are established.</td>
<td>Contributes to the GDP of the country where it is registered</td>
<td>Profits are usually reinvested in the country where the SPC/SPV is registered (reinvested earnings).</td>
</tr>
<tr>
<td>All the transactions between the headquarters and the affiliated companies and non-resident clients abroad are subject to balance of payments reporting.</td>
<td></td>
<td>All daughter companies operate and report independently in the country where they are registered.</td>
</tr>
</tbody>
</table>

Source: Eurostat

The 'Family of the major shareholders' are usually the ultimate owners. The private person having an ownership interest is the registered/legal owner. In these cases, the SPV is owned by a single individual or family, an offshore trust - or series of offshore trusts, or a larger corporation. It is important for the financial institutions to know those ultimate owners that own - directly or indirectly - more than 25% in the registered owner (in money-laundering law this is known as 'know your customer KYC-principal'). Figure 8 below shows basic and more complex structures of shipping groups of companies.
Institutional units providing sea and air transport

Figure 8: Basic structure of a shipping group of companies

Source: Eurostat

Figure 9: Complex structure of a shipping group of companies

Family of the Major Shareholder(s) – "Founder(s)"

Source: Eurostat
Box 8: Case study on ownership structures in the air transport industry

Aircraft financing is organised differently for operating and financial leases. The leasing companies, whose main activity is to buy and lease aircraft to the airlines, usually provide operating leases. In contrast, financial leases are financed through SPVs and might accumulate several financing sources from several banks. As a rule, when a bank buys an aircraft, a bank finances it with debt or a combination of debt and equity, puts it straight into the SPV accounting and leases it to an airline through SPV, not directly.

Further, the risk - in terms of the remaining value of an asset – that a lessee accepts with a financial lease is much bigger than with an operating lease. A lessee takes a gamble that the value of an aircraft at the end of the financial lease contract will reflect its market value and the payment for executing the buying option will be less than that value. In case of an operating lease, a lessee returns an aircraft to the lessor and is not concerned about the market value of an asset. It is only in the case of financial leasing that a change of ownership takes place. Financial leasing (dry leasing) is a leasing arrangement whereby the aircraft financing entity (lessor) provides an aircraft without complete crew, ground staff, insurance, supporting equipment or maintenance to the lessee. The aircraft is operated on the air operator’s certificate (AOC) of the lessee, who provides also the aircraft registration. While based on these characteristics, a dry lease would usually be a financial lease, a dry lease can also be structured so as to constitute an operational lease. A “wet” lease is a leasing arrangement whereby the lessor provides the aircraft, one or more complete crews (including engineers), all maintenance for the aircraft and insurance (ACMI). One indicator of financial leasing is that it is the responsibility of the economic owner to provide any necessary repair and maintenance of the asset. Very often, the nature of the asset subject to a financial lease may be quite distinct from the assets used by lessors in their productive activities, for example a commercial airliner legally owned by a bank but leased to an airline. There is no clear distinction between the length (time period) of the two types of lease. For a new aircraft, the operating lease is usually for around 10 years, while the most common financial lease is 12 years. However, as the terms of different leases can vary, their length is not a clear indicator of the type used by an airline. The SPV will remain the legal owner of the asset for the duration of the financial leasing contract, while the airline will be its economic owner and will get the aircraft at the end of the contract.

A leasing company finances itself and owns many aircraft which then are leased to the airlines. The leasing company/lessor takes out the loan, and takes any risk for the aircraft. Rent payments are the main income source for the lessor. The airline should guarantee the maintenance of the aircraft and return it to the lessor at the end of the operating lease.

Source: Eurostat

Figure 10: Operating leases financing structure for air transport
Box 9: Case study on financial leases for air transport

Airlines initiate the financial leasing process by starting to negotiate with banks on the financing of an aircraft. Once they reach an agreement, an SPV is established. The relationship between the bank and the SPV is based on debt, i.e. a loan agreement. The relationship between an SPV and an airline is based on a financial lease agreement. As an SPV is a non-operational company, and is rather merely a holder of an asset, a management company might act on the SPV’s behalf when signing agreements, accepting payments from airlines and repaying the principal and interest to banks.

As participation loans are common in aircraft financing and several banks may finance one aircraft. There is a distinction between the different investors, e.g. senior and junior lenders. A senior lender invests the highest share of funds and takes less risk. If an airline goes bankrupt, a senior lender is the first one to claim on the full amount it invested. Junior lenders accept a higher risk as they can only claim back the funds they invested after the senior lender has done so. However, the interest rate of such loans are usually higher due to that risk.

The SPV would normally buy the aircraft and rent it to the airline. During the whole leasing contract the SPV will stay the legal owner of the asset, while the airline will be its economic owner and will get the aircraft at the end of the contract.

During discussions on the various financial accounting sources for statistical reporting, it was noted that due to substantial changes in accounting standards, balance sheets and income statements might not be appropriate sources for distinguishing between transactions for different leases. On a lessee’s side: (i) all leased assets are presented in the ‘right-of-use asset’ row and all corresponding liabilities are presented in the ‘lease-debt’ row in a balance sheet, regardless of the type of lease; and (ii) both operating and financial lease payments are recognised as repayments of the principal plus interest in its income statement. Invoices are issued by the lessor. Therefore, for an operating lease an invoice includes an amount of a single payment. For a financial lease, an invoice includes the amount of principal plus interest.

Source: Eurostat

Figure 11: Financial leases financing structure for air transport

Source: Eurostat
3.7 Criteria to identify economic ownership

3.7.1 Background

The relationships between the different individuals and companies involved in ship management are very complex. Identifying their roles is not always easy given that definitions and terminology used in commercial databases can be different to those used in statistical databases. The table below presents the various types of ownership according to Lloyd's Intelligence List and to IHS Maritime & Trade.

Table 7: Definitions of types of ownership according to IHS Maritime & Trade and Lloyd’s Intelligence List

<table>
<thead>
<tr>
<th>IHS Maritime &amp; Trade</th>
<th>Lloyd’s List Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered owner (country of registration, country of domicile, country of control)</td>
<td>Registered owner country</td>
</tr>
<tr>
<td>Ship manager (country of registration, country of domicile, country of control)</td>
<td>Commercial operator country</td>
</tr>
<tr>
<td>Commercial operator (country of registration, country of domicile, country of control)</td>
<td></td>
</tr>
<tr>
<td>Group beneficial owner (country of registration, country of domicile, country of control)</td>
<td>Beneficial owner country</td>
</tr>
<tr>
<td>Bareboat charterer (country of registration, country of domicile, country of control)</td>
<td>Third party operator country</td>
</tr>
<tr>
<td>Technical manager (country of registration, country of domicile, country of control)</td>
<td>Technical manager country</td>
</tr>
<tr>
<td>DOC company (country of registration, country of domicile, country of control)</td>
<td>‘DOC’ owner country</td>
</tr>
</tbody>
</table>

Source: Bank of Greece

Notes: See Chapter 3.6.3 for the definition for each type of ownership according to the data providers.

The IHS Maritime uses three country definitions depending on the type of ownership, as follows:

- Country of registration: the country in which the company or entity is legally incorporated.
- Country of domicile - also known as the country of residence: the country where the ownership, management or operating entity is physically located. ‘Brass plate’ companies will usually be referenced as under the ‘care of’ the commercial manager, and have the same country of domicile.
- Country of control: the country where the controlling interest in the company is held. This may differ from the country of domicile.

Lloyd’s List Intelligence records the country of main operations / head offices, which is more similar to the country of domicile reported by IHS Maritime & Trade.

An expert examination of some microdata in the commercial databases (provided by the IHS Maritime & Trade) showed that in 75% of cases the operator and the ship manager are the same. Lloyd’s Intelligence List database makes no distinction between the two concepts and provides a sole variable called ‘commercial operator’.
3.7.2 Economic ownership by type of contractual agreement

According to the analyses in Chapters 5 and 6, the economic ownership can in most cases be identified on the basis of the transport agreement between the legal ship owner (SPC/SPV) and the operator / ship manager. Three overarching agreements have been identified:

- Time or voyage charter (Case A)
- Standard bareboat charter (Case B)
- Standard management agreement (Case C)

For a time or voyage charter (Case A) and a standard management agreement (Case C), the legal ship owner (SPC/SPV) is considered as the economic owner of the vessel. The operator / management company acts for and on behalf of the legal ship owner. The legal ship owner receives revenues from the economic activity (in terms of daily fee in Case A and net freight earnings in Case C), whereas the asset (vessel) and the liabilities are attributed to the legal ship owner (SPC/SPV).

For a standard bareboat chartering agreement, as indicated in Chapter 5, the economic ownership can sometimes be transferred by the legal ship owner to the operator (chartered) of the vessel, depending on the conditions set in the agreement and whether they fulfil the indicative criteria set out in the manuals (see ITGS CG (EC), paragraph 574).

In international databases the name of the legal ship owner (SPC/SPV), is indicated in the column ‘Registered owner’ and its location in the column ‘Registered owner country of registration’. Note that if after analysing the available microdata, the country of domicile in the international databases seems more related to the ship manager / operator’s location than that of the legal ship owner, it is recommended to use ‘country of registration’ to identify the legal ship owner’s location.

In IHS Maritime & Trade the name of the bareboat charter is indicated in the column ‘Bareboat charterer’ and its location in the column ‘Bareboat charterer country of registration’ - and if the company’s main activities take place in another country, in the column ‘Bareboat charterer country of domicile’. In Lloyd’s List Intelligence ‘Third party operator’ includes bareboat charterers, as well as long-term (above 6 months) charterers or pool operators.

Although not related to economic ownership, for balance of payment transactions the location of the ship manager / operator must also be identified. A management company might be legally registered abroad (in country Y) with a branch located in country X. If the main operations are conducted by the branch, then country Y will be indicated as the ‘country of registration’ in the international databases, and country X as the ‘country of domicile’. If there is no branch, or the main activities are carried out abroad, the country of registration and domicile will be the same (country Y). The same goes for bareboat charterer, third party operator and technical manager.

Therefore, to identify the residency of an entity the recommendation is to indicate the legal ship owner in the ‘Registered owner country of registration’ column, and the ship manager, commercial operator, third party operator, technical manager and bareboat charterer in the ‘country of domicile’ column.

In international databases, the beneficial owner (UBO) / group beneficial owner (GBO) is either the same as the commercial operator /ship manager, or the holding company / trading name of a group. As mentioned above, the UBO/GBO is not the economic owner, unless it is the same as the legal ship owner or the bareboat charterer.

3.7.3 Definitions of types of ownership according to shipping classification societies

**Lloyd’s List Intelligence**

The **beneficial owner** is the ultimate owning entity or representative thereof (either an individual, company, group or organisation). The beneficial owner may be the vessel's management company or the trading name of a group, both of which are generally perceived to represent the ultimate owners of the vessel.

The **commercial operator** is responsible for the commercial direction of a ship, including how it is
used. It may be either the principal operating affiliate of the beneficial owner or the beneficial owner itself. An operating company acting on behalf of a group of registered owner's vessels may be regarded as their commercial operator. The commercial operator is responsible for ship operations, chartering, bunkering, port services and insurance, and may also oversee technical and crewing management, although these two functions may be outsourced.

The registered owner is the company or individual to whom the ship's legal title of ownership has been registered. This is where 'open registry', 'paper' or 'name-plate' companies are often involved, with ships being registered in a country whose tax on the profits of trading ships is low/absent or whose requirements for manning or maintenance might be more relaxed.

The technical manager is the company responsible for the maintenance of the ship and the machinery, repairs, stores and spares, and - in many instances - crew. The technical manager can be an in–house subsidiary or division of the beneficial owner, or a third party entity. The DOC company is often also the technical manager.

The third party operator is a company that undertakes control, management, operation or agency of a period chartered ship. The third party operator includes period charterers, pool operators, bareboat charterers, and third party commercial managers. It has no known corporate relationship with the beneficial owner. However, pool companies can sometimes be partly owned and/or managed by the beneficial owner of one or more vessels in their pool.

The document of compliance (DOC) owner is the owner of a ship or any other organisation or person - such as the manager or the bareboat charterer - that has assumed responsibility for the ship's operation from the ship owner and who, on assuming such responsibility, has agreed to take over all duties and responsibilities imposed by the ISM code. The DOC company is often responsible for the technical management of the ship.

IHS Maritime & Trade

IHS Maritime & Trade identifies the following roles for a vessel’s ownership/management, but note that the same company may perform more than one role on a ship.

The document of compliance (DOC) company is the owner of the ship or any other organisation or person - such as the manager or bareboat charterer - that has assumed the responsibility for the technical operation of the ship from the owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the ISM code. It is the documented company on both DOC and SMC certificates issued by flag administrations – but responsible organisations (such as classification societies, who may carry out the audits) also have information on it. The DOC company is very often responsible for the technical management of the ship.

The registered owner is the company or individual to whom the ship's legal title of ownership has been registered. It may be: (i) an owner/manager; (ii) a wholly-owned subsidiary in a larger shipping group; (iii) a bank or one-ship company vehicle set up by the bank; or (iv) a ‘brass-plate’ company created on paper to legally own a ship and possibly to limit liability for the ‘real’ owners and/or benefit from offshore tax laws. In any case, it may be a legal requirement of the flag-state with whom the ship is registered for the legal owner to be a company registered in that country.

The commercial manager is the company designated by the ship owner or charterer as responsible for the day-to-day commercial running of the ship, and is the ship’s primary contact for commercial matters. Its responsibilities include post fixture, such as laytime, demurrage, insurance and charter clauses. This company may be an owner-related company, or a third party manager whose primary purpose is to manage ships for its ship-owning clients. N.B. Many ships today are owned by banks or finance/leasing companies who have no operational involvement whatsoever. In practice the lessee company, or one of its subsidiary companies, may appear as the manager of the ship.

The technical manager is the company designated by the ship owner or operator or ship manager as specifically responsible for the technical operation and technical superintendancy of a ship. This company may also be responsible for certain purchases for the fleet, such as repairs, spares, re-engining, surveys and dry-docking. The DOC company is also very often responsible for the technical management of the ship.

The commercial operator is the company responsible for commercial decisions on how where to use a ship. Being the direct beneficiary of the profits from the use of the ship, this company may also be
Institutional units providing sea and air transport

responsible for purchasing decisions on bunkers and port services. A medium to long-term time charterer is considered to be the operator of the ship, and this is also sometimes the case for a medium to long-term bareboat charterer. Companies heading operator pools are operators of the ships in the pool. In some circumstances, the commercial operator may be referred to as the disponent owner of the ship. N.B. If there is no authoritative source for identifying the operator of the ship, the commercial ship manager will be used as a default until the operator’s identity is substantiated. Many ships today are owned by banks or finance/leasing companies who have no operational involvement whatsoever. In practice the lessee company - which is sometimes referred to as the disponent owner - may appear as the operator of the ship.

The bareboat/demise charterer is the company identified on the charter-party agreement who charters the ship on a bareboat or demise charter. In this role, the charterer assumes control of all operations, costs and responsibilities associated with the vessel for an agreed period of time. The charterer becomes or appoints the managers, and may also have the right to sub-charter the vessel. In time charter party agreements, the charterer may only assume responsibility for operations, routing and cargo, while technical, crewing, etc. remain the responsibility of the owner. In some circumstances, the bareboat/demise charterer may be referred to as the disponent owner of the ship. It is increasingly common for ships to be in a parallel registry during the period of a bareboat charter. In this case, the ship is transferred by the bareboat charterer to a new operational flag, while the ownership of the ship (registered owner) continues under the original registry. None of the legal or financial responsibilities of the registered owner are transferred to the bareboat charterer during the period of charter. N.B. In demise charter agreements, if negotiated at the beginning of charter agreement, the charterer may have the option to purchase the vessel at the end of the charter period.

The group beneficial owner is the parent company of the registered owner. It is the controlling interest behind its fleet and the ultimate beneficiary of the ownership. A group beneficial owner may or may not directly own ships itself as a registered owner. It may be the manager of its fleet, which is in turn owned by subsidiary companies. Its ships may also be managed by a third party under contract.

Group operated fleet – For companies identified as group beneficial owners, HIS Maritime & Trade can identify the total operational fleet. This group operated fleet includes all the ships in the fleet operated by the group, including both their owned vessels and chartered ones.
4 CONTRACTUAL AGREEMENTS FOR SEA AND AIR TRANSPORT

4.1 Introduction

Ships\(^{(16)}\) are mobile assets, capable of being moved as required to meet demand anywhere in the world. Unless designed for specific local or coastal trade, or where committed to long-term contracts on one route, ships tend to trade internationally and worldwide. Ship owners and operators need to pay for their vessels, i.e. they will trade them where there is most demand and where they see the greatest profit, and that is done by means of contractual agreements, often known as charters. BIMCO lists more than 160 standard types of agreement\(^{(17)}\).

Bearing in mind that actual data on specific types of agreement between ship owners and operators/ship managers are scarce, we present a few types of contractual arrangements commonly used in the shipping market\(^{(18)}\) (examples of the different types of charter are presented in the Annex).

4.2 Voyage charter

This is the simplest form of charter. It is the hiring of a vessel and crew for a voyage between the loading and the discharging port. In other words, a voyage charter provides transport of a specific cargo from port A to port B for a fixed price. The price is usually agreed per tonne of commodities and/or goods carried. The ship owner (being the economic owner of the ship) operates the vessel. The ship owner pays the capital costs, the voyage expenses and operating costs, and the port costs (excluding stevedoring), fuel costs and crew costs.

4.3 Contract of Affreightment (CoA)

This form of contract could be considered as a set of voyage charters, agreed at the same time, and forming one contract. For example, it could be the carriage of a certain product or commodity from port A to a port B for twelve consecutive cargoes carried at monthly intervals. Unlike a voyage charter, a specific vessel for each cargo is not usually specified in the contract. These can be very long-term contracts.

4.4 Time charter

In contrast to a voyage charter or a CoA, under a time charter the operator directs the commercial operations of the vessel for a period of time, effectively hiring the vessel for his own use; he selects

\(^{(16)}\) The Compiler\'s guide on European statistics on international trade in goods provides a comprehensive description of the concept of ITGS concerning the trade of ships and aircraft based on change of economic ownership and provides practical guidelines for the identification of the economic owner of ships and aircraft.

\(^{(17)}\) For the full list see: https://www.bimco.org/contracts-and-clauses/bimco-contracts.

\(^{(18)}\) For details please see: Legal and economic analysis of tramp maritime services, EU Report COMP/2006/D2/002.
the ports and directs the vessel where to go. The period of hire may vary from a few days up to months or years. The ship owner continues to pay the operating costs (i.e. the crew, maintenance and repair of the vessel) and remains the economic owner of the ship. The operator directs the commercial operations of the vessel and pays all voyage expenses (i.e. bunkers, port charges, the fuel the vessel consumes and canal dues), handling costs and a daily hire to the owner of the vessel.

### 4.5 Bareboat charter

A bareboat charter is effectively a time charter with the difference that the charterer has full operational control (technical running and commercial management) of the ship (but does not legally own it), manages the vessel and pays all operating and voyage costs. In addition to paying for the hire of the ship, he also arranges the crew, maintenance, insurance, fuel, port expenses, etc. Bareboat charters tend to be for significant periods of time and are often used by financial institutions as a means of providing security for loans. The different managing cost elements according to the type of contractual arrangement are illustrated in Table 8: Managing costs by contract type.

#### Table 8: Managing costs by contract type

<table>
<thead>
<tr>
<th>TYPE OF CONTRACTUAL AGREEMENT</th>
<th>Capital costs</th>
<th>Insurance</th>
<th>Crew costs</th>
<th>Maintenance Repairs and Operation</th>
<th>Classification costs</th>
<th>Lube oil</th>
<th>Other operational costs</th>
<th>Bunkers</th>
<th>Port costs</th>
<th>Canal costs</th>
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<tbody>
<tr>
<td>FINANCIAL LEASING</td>
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<td>BAREBOAT CHARTER</td>
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<td>VOYAGE CHARTER</td>
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</table>

*Source: Fearnleys (2006) and Eurostat*

BPM6 paragraph 4.31 indicates that the activities of the ship-operating enterprise are included in the territory where the operator is resident, unless a branch is recognised for substantial operations in another territory. However, the reality is a bit more complicated, due to the complex relationships among the different players in the shipping cluster.

### 4.6 Leases

The bareboat charter agreement might, on certain occasions, be considered a financial lease, as there could be a change of economic ownership of the asset and the legal owner of the ship would not be considered an economic owner\(^{(19)}\). ESA 2010 paragraph 15.02 describes the leases as contracts which determine the classification of payments and the economic ownership of assets. For non-financial assets (other than natural resources), such as vessels and ships, two types of leases are distinguished:

- **operating lease** – there is no change of economic ownership and the legal owner continues to be the economic owner;
- **financial lease** – there is a change of economic ownership of the asset, and the legal owner of the asset is not considered to be the economic owner.

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\(^{(19)}\) Elements qualifying for financial leasing can be identified in the Baltic and International Maritime Council (BIMCO) Standard Bareboat Charter contracts.
Table 9: Recording of leases as laid down in the ESA 2010 and the BPM6

<table>
<thead>
<tr>
<th>Type of leases</th>
<th>Method of recording for the user</th>
</tr>
</thead>
</table>
| Operating lease (not for natural resources) | The user (operator) is not the economic owner of the non-financial asset (the ship/aircraft).  
The rentals are recorded as payments for a service, intermediate consumption or final consumption expenditure by general government, households and NPISHs.  
In the balance of payments, the payments for rentals should be recorded in the services account, under other business services. |
| Financial lease                        | The user (operator) is the economic owner of a non-financial asset (the ship/aircraft), financed by a loan from the lessor.  
The payments are for the most part repayment of principal and payments of interest on the loan.  
In the balance of payments, the payments of principal and interest should be recorded in the financial account as loans, while the accrued interest should be included within the primary income account. Part of the interest payments may be recorded as FISIM when the lender is a financial intermediary. This payment is classified as intermediate consumption or final consumption expenditure by general government, households and NPISHs. |

Source: Eurostat
Box 10: Definition of operating and financial leases in the ESA 2010

ESA 2010 defines the operating leases as:

15.08 An operating lease is a lease whereby the legal owner is also the economic owner and accepts the operating risks and receives the economic benefits from the asset by charging for the use of it, in a productive activity.

15.09 One indicator of an operating lease is that it is the responsibility of the legal owner to provide for repair and maintenance of the asset.

15.10 Under an operating lease the asset remains on the balance sheet of the lessor.

ESA 2010 defines the financial leases as:

15.13 Definition: a financial lease is one where the lessor is the legal owner of an asset but the lessee is the economic owner as the latter bears the operating risks and receives the economic benefits from using the asset in a productive activity. In return, the lessor accepts another package of risks and rewards from the lessee, in the form of repayments associated with a loan. It is frequently the case that the lessor, though the legal owner of the asset, never takes physical delivery of the asset but consents to its delivery directly to the lessee. One indicator of a financial lease is that it is the responsibility of the economic owner to provide any necessary repair and maintenance of the asset.

15.14 Under a financial lease, the legal owner is shown as issuing a loan to the lessee, which the lessee uses to acquire the asset. Thereafter the asset is shown on the balance sheet of the lessee and not the lessor; the corresponding loan is shown as an asset of the lessor and a liability of the lessee. Payments under a financial lease are treated not as rentals but as the payment of interest and repayment of principal on the imputed loan. If the lessor is a financial intermediary, part of the payment is also treated as a service charge (FISIM - financial intermediation services indirectly measured).

The Balance of Payments Compilation Guide (BPM6 CG), chapter ‘Crosscutting Issues in Compiling Balance of Payments and International Investment Position Statistics’, paragraph 8.58, defines as follows: ‘Economy of incorporation of operator; for equipment under financial lease, the lessee is considered the operator. For a ship flying a flag of convenience, the economy of the operator is the economy of the company directing the ships operations, which may not necessarily be the economy of registration. If the operator establishes, for tax or other considerations, a branch or subsidiary in another economy to manage the operation, the operation is attributable to the economy of the branch.’

For the treatment under IFRS 16 see Chapter 7.
<table>
<thead>
<tr>
<th>Contractual agreement</th>
<th>Description</th>
<th>Charterer/operator</th>
<th>Legal owner</th>
<th>Recording of transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Voyage charter</strong></td>
<td>Exporter/Importer hires the vessel for a single (multiple) voyage, with crew</td>
<td>• NOT responsible for the operation of the vessel &lt;br&gt; • NOT considered as the operator of the ship</td>
<td>No change of economic ownership (economic ownership rests with the legal ownership)</td>
<td>Freight under transport (BPM6 CG paragraph 12.33) &lt;br&gt; SC12</td>
</tr>
<tr>
<td><strong>Slot/space charter</strong></td>
<td>A space in the vessel is hired, with crew</td>
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<tr>
<td><strong>Time charter</strong></td>
<td>Rentals, charters or operating leases with crew</td>
<td>• Directs the commercial operations of the vessel &lt;br&gt; • Pays all voyage expenses (i.e. bunkers, port charges and canal dues) &lt;br&gt; • Pays handling costs &lt;br&gt; • NOT responsible for providing Crew and/or maintaining the vessel properly</td>
<td>No change of economic ownership (economic ownership rests with the legal ownership)</td>
<td>Classified under transport (BPM6 CG paragraph 12.29; 12.32.) &lt;br&gt; SC11; SC12; SC13; SC31, SC32, SC33</td>
</tr>
<tr>
<td><strong>Rentals, charters or operating leases without crew</strong></td>
<td>BPM6 CG paragraph 12.27, Footnote 4: Equipment is rented without the crew, the compiler should record operating lease payments, which are made by the operator to the owner, under other business services-operating leasing services. BPM6 paragraph 10.77: Rentals and time charters without crew included in operating leasing services.</td>
<td></td>
<td>No change of economic ownership (economic ownership rests with the legal ownership)</td>
<td>Classified under other business services-operating leasing services</td>
</tr>
</tbody>
</table>
### Table 10: Types of transport contractual agreements and their recording

| Bareboat charter | Leases **without crew** | Bareboat charterer | No change of economic ownership (economic ownership rests with the legal ownership) | Classified under other business services-operating leasing services (BPM6 CG paragraph 12.27, 12.29 – 12.31) | Decision on the inclusion in ITGS depends on the results of investigation. If not included in ITGS, should be recorded in ITSS.  
SJ33 |
<table>
<thead>
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<tr>
<td></td>
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<td>Takes full control of the vessel along with the legal and financial responsibility</td>
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<td>Pays all operating costs</td>
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<td>Pays voyage costs</td>
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<td>Arranges the crew, maintenance, insurance, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Usually has the right to purchase the ship during or at the end of the charter period.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The demise shifts the control and possession of the vessel from lessee to charterer. These arrangements can be difficult to determine whether there is a change in economic ownership or not</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Leases</strong></td>
<td><strong>without crew</strong></td>
<td>Long-term bareboat charterer is to be considered the operator of the ship when it</td>
<td>Change of economic ownership (the decision whether the transaction is included in goods or services depends on further investigation. Important to note that in case of a long term bareboat charter there is not always a change of economic ownership.</td>
<td>Depending on contractual arrangements</td>
<td>Depending on contractual arrangements in case a ship imported into the country under a long-term bareboat charter to be debited as an import.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Takes full control of the vessel along with the legal and financial responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pays all operating costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pays voyage costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arranges the crew, maintenance, insurance, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Usually has the right to purchase the ship during or at the end of the charter period and or fulfills other indicative criteria.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

20 This handbook suggests an exchange of information if the results of this investigation lead to its inclusion in ITGS. Hence double counting needs to be avoided in national accounts between the data received from ITGS and BOP. This exchange of information should be established between the statistical domains with a country as well as between the countries concerned.
**Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments**

| Financial Leasing | Financial lease gives rise to a loan, therefore the transactions are excluded from services | Economic owner of the ship | Change of economic ownership | Services-Financial services, FISIM (if provided by a financial corporation, BPM6 paragraph 10.132), Primary income-Investment income Financial account- Loans | Financial leasing contracts in line with ESA 2010 definitions should be considered within the scope of ITGS. |

*Source: Eurostat*
ESA 2010, paragraph 15.19, indicates that any corporation that specialises in financial leasing, even if called a property company or aircraft leasing company, shall be classified as a financial intermediary offering loans to the units leasing assets from them.

In the case of ship-owning companies leasing the ships under financial leasing contracts to lessees (in statistical terms), as their main principal economic activity, these by definition belong to sector S.12 (financial corporations) and therefore are involved in the production of FISIM (through loans granted to lessees). Thus, their activity should impact the balance of payments (exports of FISIM), with an impact on the GDP of the country where they are resident. However, the GNI of that country should in principle not be affected because the export of FISIM should be offset by the correction to the interest flows for rest of the world (ROW).

In general terms for financial leasing, the lessee is deemed to be the economic owner. Therefore, the outcome of any economic activities should be assigned to the country where he is resident.

**Box 11: Definition of financial leases in the ESA 2010**

Further on the financial leases, ESA 2010 says: ‘15.16 It is common for a financial lease period to be for the whole of the economic life of the asset. When this occurs, the value of the imputed loan corresponds to the present value of the payments to be made under the lease agreement. This value will cover the cost of the asset and usually also include a fee charged by the lessor, which is accrued over the period of the lease. Payments made regularly to the lessor can be recorded as four components: interest payments; repayments of principal on the imputed loan; the lessor fee; and FISIM (if the lessor is a financial intermediary). If the terms of the agreement do not specify how the first three elements are identified, the repayment of principal must correspond to the decline in the value of the asset (the consumption of fixed capital), the interest payable must correspond to the return on capital of the asset, and the service charge to the difference between the total amount payable and those two elements. 15.17 A financial lease may also exist when the lease period is less than the economic life of the asset. In this case, the value of the imputed loan again covers the cost of the asset and the fee charged by the lessor plus the value of the service charges to be made under the terms of the lease. Payments made regularly to the lessor shall be recorded as interest payments and repayments of principal on the imputed loan, the lessor fee, and for FISIM (if the lessor is a financial intermediary). It may also include pre-payments funding the repurchase of the asset at the end of the lease period. At the end of the lease, the asset may transfer to the balance sheet of the lessee, depending upon the contractual arrangements. The value of the residual amounts outstanding on the loan will be equal to the expected market value of the asset at the end of the lease period as determined at the start of the lease. At this point, the asset could be returned to the lessor, an option invoked for the lessee to legally acquire the asset, or a new lease arrangement set up.’
Box 12: Case study on air transport — leasing markets

Due to the high prices of aircraft, airlines would have to accumulate significant monetary reserves to be able to make initial capital investments, which makes leases particularly relevant in the air transport sector. In terms of the length of a lease, most run for 4-12 years and, very rarely, for a 2-year period. The lifetime of an aircraft averages 25 years, so it may be leased several times during that period. Sub-leases are also quite common and usually mirror the initial lease: if the initial lease is a financial lease, most likely the sub-lease would be a financial lease. In 2019, there are approximately 20,000 aircraft in service in the world and each of them has to be registered in a national registry. There are no international registries for aircraft, but lessors use international commercial databases that provide accurate information on aircraft worldwide. Access to register an aircraft is usually granted for both the lessor (legal owner) and the lessee (operator), unless the contract includes any restrictions. The legal owner can ask for deregistration if the airline goes bankrupt.

Source: Eurostat

Box 13: Case study on air transport — leasing transactions, accounting and statistical reporting

Under the new IFRS 16 leases standard, a lessor (leasing company) still has to distinguish between an operating lease and financial lease and make a decision on whether to derecognise an asset from its balance sheet. The type of lease depends on varying conditions defined in lease agreements. One of them is a relative value of a lease: if the value of the lease contains an 80% or higher share of the value of the leased asset, it is considered a financial lease, economic ownership is transferred to a lessee and the lessor does not show the asset on its balance sheet. Aircraft lease agreements are usually structured as net leases. The net lease concept means that a lessee (airline) will, in addition to the rental fee, also pay for all costs associated with ownership of the aircraft, including expenses associated with operation and maintenance. Thus, airlines (lessees) accept all the risks related to the maintenance, repair and overhaul (MRO) of the leased asset.

Source: Eurostat

Figure 12: Leasing transactions in the air transport sector

Source: Eurostat
Airlines pay monthly lease payments consisting of repayment of the principal and interest expenses, and supplementary rent, which serves as a reserve for maintenance expenses. From a lessor's perspective, the supplementary rent provides security to reduce the lessor's maintenance cost exposure in the case of insolvency or bankruptcy of a lessee. The calculation methodology of supplementary rent is a matter of negotiation and is defined in the contract; it depends on the actual flight hours, flight cycles or calendar time consumed using the leased aircraft. In the event of a repair, the lessor reimburses the lessee only for the amount of the supplementary rent. Excess costs over and above the supplementary rent are the lessee's responsibility and are not covered by the lessor.

Regarding the international accounting standards, the internationalisation of the industry has led to an increasing number of companies using IFRS accounting standards even without compulsory state regulation. The publicly available consolidated financial accounts of Air France/KLM were analysed as an example. The airline early adopted IFRS 16 with an initial application date of 1 January 2018. In the example of Air France/KLM, the changes regarding IFRS 16 were reflected in the financial accounts, but some assumptions such as whether a very limited number of high value assets, individual statutory accounts as well as tax accounts presence were discussed would allow companies to continue high quality statistical reporting separately for transactions related to operating and financial leases.

On the basis of the consolidated annual accounts, estimates were modelled representing flows linked to operating leasing and financial leasing. For simplicity, the reimbursement (repayment of the loan) and the interest were selected. The interest expense on the lease liability is a component of finance costs, which is presented separately in the profit/loss statement. The part of the fleet operated under operating leasing, financial leasing and owned by the airline is shown in the consolidated accounts.

Regarding the standard contracts, wet lease (lease with crew) would be classified as a contract with a service (provision of the crew) and a lease component (provision of the aircraft). This is not aligned with the BPM6 compilation guide, which concludes that in the case of wet leasing the flows should be recorded under transport services. Payments related to wet lease are presented in the annual reports of the airlines under chartering costs (aircraft, crew, maintenance, insurance - ACMI).

Eurostat observation: Given the international environment of the air transport industry and the increasing use of IFRS accounting standards, the new IFRS 16 leases standard will significantly affect representation of leasing activities in companies' financial accounts. However, additional data sources, such as aircraft national registries and international databases, companies' statutory accounts and tax accounts, and lease agreements, might be important sources for additional information in order to follow statistical guidelines and to continue statistical reporting according to different lease types.

Source: Eurostat
5. ECONOMIC OWNERSHIP AND CHANGES OF OWNERSHIP

5.1 Introduction

Identifying the economic owner of a ship using the same criteria is crucial for consistent reporting. The economic owner should be the unit reporting the transactions/revenues from the economic activity of the ship that provides transport services. In the majority of cases, the economic owner might be identified on the basis of the transport agreement under which the ship is chartered, and the leasing contracts. In Chapter 3 guidance is provided on the identification of the economic owner based on the, Compilers guide on European statistics on international trade in goods, and the topic is discussed further on in Chapter 4. For other possible types of agreements, not directly characterised as bareboat, time or voyage chartering, a similar checklist can be used to identify the economic owner.

5.2 Bareboat charter

In the cases of bareboat charter (see an example in the Annex) sometimes the economic ownership can be transferred from the legal owner to the operator (charterer) of the ship. This action depends on the conditions set in the agreement and whether they fulfill the indicative criteria set in the manuals for a change of the economic ownership of the asset(21). For the list of indicative criteria see also Chapter 2.4. If the conditions are met then it can be considered that the legal owner is the SPV holding the asset (ship) and having the liability of loans and/or equity/cash. The commercial data providers often provide information about the existence of bareboat charting agreements, e.g. Lloyd's Intelligence List endeavours to reflect all bareboat charters for all vessels in the field ‘Third Party Operator’(22). ‘IHS Fairplay’ records bareboat charterer in the field ‘bareboat owner’.

The legal owner is the SPV holding the asset (ship), covering its capital costs (there are fixed, one-time expenses incurred on the purchase of the ship that is used in the rendering of services) and also having the liability for loans or equity/cash.

The bareboat charter contract reads as follows: The Owners shall before and at the time of delivery exercise due diligence to make the Vessel seaworthy. And in every respect ready in hull, machinery and equipment for service under this Charter. The Vessel shall be delivered by the Owners and taken over by the Charterers at the port or place indicated … in such ready safe berth as the Charterers may direct. (see page 264 of this handbook).

The legal owners (as defined in the bareboat charter contract, page 264 of this handbook part II, paragraph 3(a)) shall before and at the time of delivery exercise due diligence to make the vessel seaworthy and in every respect ready in hull, machinery and equipment for service under the charter. In the standard bareboat charter, the legal owner is mentioned under Box 3: owners, place of business (see page 262 of this handbook).

(21) For a list of indicative criteria please see Compilers guide on European statistics on international trade in goods paragraph 574.

(22) According to Lloyd’s List Intelligence: ‘The third party operator includes period charterers, pool operators, bareboat charterers, and third party commercial managers.’ The third party operator is a superset of the ‘bareboat chartering’.
Table 11: Stylised SPV balance sheet

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ship</td>
<td>• Loan</td>
</tr>
<tr>
<td></td>
<td>• Equity</td>
</tr>
</tbody>
</table>

Source: Eurostat

In these cases, the operator (or charterer, as defined in the standard bareboat charter and mentioned in the Annex) becomes the economic owner of the ship. This is the institutional unit entitled to claim the benefits associated with the use of the ship in the course of an economic activity by virtue of accepting the associated risks. During the charter period the vessel is in the full possession and at the absolute disposal for all purposes of the charterer and under his complete control in every respect (according to the standard bareboat charter). Table 12: Checklist – Identification of changes in ownership (based on the bareboat charter identifications) presents an example of a possible checklist for identifying the economic owner of a ship in the case of bareboat charter.
Table 12: Checklist – Identification of changes in ownership (based on the bareboat charter identifications)

<table>
<thead>
<tr>
<th>Indicative question</th>
<th>Operator (charterer) economic owner</th>
<th>(Legal) owner</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is covering the capital costs?</td>
<td></td>
<td>X</td>
<td>Fixed, one-time expenses incurred on the purchase of the ship that is used in the rendering of services.</td>
</tr>
<tr>
<td>Who is responsible for the costs of repairs of latent defects?</td>
<td></td>
<td>X</td>
<td>Owners shall be liable for the cost of but not the time for repairs or renewals occasioned by latent defects in the vessel, her machinery or appurtenances, existing at the time of delivery under bareboat charter, provided such defects have manifested themselves within 12 months after delivery unless otherwise provided in Box 32 ‘Latent defects’ (3.c. Bareboat charter).</td>
</tr>
<tr>
<td>Who is responsible for the insurance of the ship?</td>
<td>X</td>
<td></td>
<td>During the Charter period the vessel shall be kept insured by the Charterers at their expense against hull and machinery, war and Protection and Indemnity risks (and any risks against which it is compulsory to insure for the operation of the vessel, incl. maintaining financial security...) (13.a. Bareboat charter).</td>
</tr>
<tr>
<td>Who is responsible for the repairs during the charter period?</td>
<td>X</td>
<td></td>
<td>The Charterers also remain responsible for the repairs and settlement of costs and expenses incurred thereby in respect of all other repairs not covered by the insurances and/or not exceeding any possible franchises or deductibles provided for in the insurances (13.a. Bareboat charter).</td>
</tr>
<tr>
<td>Who is covering the crew costs?</td>
<td>X</td>
<td></td>
<td>The operator/charterer has to cover the crew expenses, complying with the regulations in force in the country of the vessel’s flag or any other applicable law.</td>
</tr>
<tr>
<td>Who is responsible for the maintenance and operation of the vessel?</td>
<td>X</td>
<td></td>
<td>The Charterers shall maintain the vessel, its machinery, boilers, appurtenances and spare parts in a good state of repair, in efficient operating conditions and in accordance with good commercial maintenance practice….at their own expense... (10.a. (i) Bareboat charter).</td>
</tr>
<tr>
<td>Who is responsible for the classification costs?</td>
<td>X</td>
<td></td>
<td>…the Charterers shall at all times keep the vessel's Class fully up to date with the Classification Society…. And maintain all other necessary certificates in force at all time. (10.a.(i). Bareboat charter). New class and other safety requirements (10.a.(ii) Bareboat charter).</td>
</tr>
<tr>
<td>Who is covering the lube oil, bunker, port and canal costs?</td>
<td>X</td>
<td></td>
<td>Costs linked to the operation of the ship.</td>
</tr>
<tr>
<td>Indicative question</td>
<td>Operator (charterer) economic owner</td>
<td>(Legal) owner</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
<td>-------------------------------------</td>
<td>---------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Who is responsible for the other operational costs?</td>
<td>X</td>
<td></td>
<td>The Charterers shall at their own expense and by their own procurement man, victual, navigate, operate, supply, fuel and, whatever required, repair the vessel during the charter period and they shall pay all charges and expenses of every kind and nature whatsoever incidental to their use and operation of the vessel under the bareboat charter incl. annual flag state fees and any foreign general municipality and/or state taxes. (10.b. Bareboat charter).</td>
</tr>
<tr>
<td>Who is reporting the transactions/revenues from the activity?</td>
<td>X</td>
<td></td>
<td>The economic owner is the unit reporting the transactions/revenues from the economic activity of the ship that provides transport services.</td>
</tr>
<tr>
<td>Who is receiving the freight earning of the transport activity?</td>
<td>X</td>
<td></td>
<td>These are earnings from providing the transport service received by the economic owner.</td>
</tr>
</tbody>
</table>

Source: Eurostat
5.3 Time charter

The time charter (see an example in the Annex) is a contract where the SPV is the legal and economic owner of the ship and is responsible for the capital costs, insurance, crew, maintenance and repair, classification and some other costs. In the standard time charter this is the unit mentioned under Box 3.

The legal owner shall deliver the vessel in the indicated class and in a thoroughly efficient state of hull and machinery and shall exercise due diligence to maintain the vessel in such class and in every way fit for the service throughout the period of the charter.

In the case of time charter, the operator/charterer/ship manager directs the commercial operations of the vessel. Where a third company takes over some aspects of the vessel management, such as technical, financial or even commercial, then there is a distinction between ship manager and operator.

In the case of a voyage or time charter, the commercial data provider 'Lloyd's Intelligence List' would be highly unlikely to identify the charterer due to the brief employment. The possible exception would perhaps be crude oil/product tanker employment. An example of the costs payable by the legal owner and operator in the case of time charter is presented below:
### Table 13: Checklist – costs payable by the legal owner (being also economic owner) and operator in the case of time charter

<table>
<thead>
<tr>
<th>Costs/provision</th>
<th>(legal and economic owner)</th>
<th>Operator (charterer)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lashings</td>
<td>X</td>
<td></td>
<td>The owner should supply and … arrange for sufficient lashing and securing equipment to facilitate the proper lashing and securing of the maximum number of containers… (6.a.(i) Time charter).</td>
</tr>
<tr>
<td>Crew assistance</td>
<td>X</td>
<td></td>
<td>Series of services rendered by the crew if required (see 6.b. Time charter).</td>
</tr>
<tr>
<td>Documentation</td>
<td>X</td>
<td></td>
<td>Any documentation relating to the vessel as required at the commencement of the time charter (6.c. Time charter).</td>
</tr>
<tr>
<td>Insurance of the vessel</td>
<td>X</td>
<td></td>
<td>6.d. Time charter</td>
</tr>
<tr>
<td>Deratisation</td>
<td>X</td>
<td></td>
<td>Provision of certificates of deratisation (6.e. Time charter).</td>
</tr>
<tr>
<td>Smuggling</td>
<td>X</td>
<td></td>
<td>In the event of smuggling by the Master, Officers and/or crew, the Owner shall bear the cost of any fines, taxes or imposts levied (6.f Time charter).</td>
</tr>
<tr>
<td>Provision of details of containers and goods</td>
<td>X</td>
<td></td>
<td>Documentation required at any port; weights of the goods (7.a. Time charter).</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>X</td>
<td></td>
<td>Receipt, loading, handling, stowing, etc. (7.b. Time charter).</td>
</tr>
<tr>
<td>Lashings</td>
<td>X</td>
<td></td>
<td>Any additional lashings to those supplied by the owner (7.c. Time charter).</td>
</tr>
<tr>
<td>Condition and stowage of containers</td>
<td>X</td>
<td></td>
<td>7.d and e. Time charter.</td>
</tr>
<tr>
<td>Stowage</td>
<td>X</td>
<td></td>
<td>7.f. Time charter.</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>X</td>
<td></td>
<td>All port charges, light and canal dues, customary pilotage, towage, consular charges, etc. (7.g. Time charter).</td>
</tr>
<tr>
<td>Bunker fuel</td>
<td>X</td>
<td></td>
<td>7.h. Time charter.</td>
</tr>
<tr>
<td>Agency costs</td>
<td>X</td>
<td></td>
<td>7.i. Time charter.</td>
</tr>
<tr>
<td>Advances to the Master</td>
<td>X</td>
<td></td>
<td>Funds provided to the Master that the charterer recuperates from the owner later on (7.j. Time charter).</td>
</tr>
<tr>
<td>Contraband</td>
<td>X</td>
<td></td>
<td>In the event that contraband and/or unmanifested goods are found to have been shipped… any fines, penalties or taxes levied shall be for the charterers' account (7.k. Time charter).</td>
</tr>
<tr>
<td>Transactions (revenues) from the activity</td>
<td>X</td>
<td></td>
<td>The economic owner is the unit reporting the transactions/revenues from the economic activity of the ship that provides transport services.</td>
</tr>
</tbody>
</table>

**Source:** Eurostat
6. Complex ownership and operations arrangements in the shipping cluster explained

6.1 Markets for vessels

The shipping cluster is a service business and ship demand depends on several factors including price, speed, reliability and security. The primary demand and supply driver in the cluster is the freight rate, which determines the revenue. In reality, when an owner wants to build up a fleet he will buy the ships one by one, establishing SPVs for each single ship, irrespective of whether they are new or second-hand ships (see Figure 13: Building up a fleet and possible interactions when buying a ship).

It is common practice for the owner to approach external investors in order not to run out of his own capital. In the period before the 2008 economic crisis, equity was often provided directly by private individuals. Today, however, it is sourced via funds, especially hedge funds, pension funds, etc. The ship owner may borrow, not just from banks but also from its parent company or/and other group entities, as well as from private equity funds.

When discussing the ships market, it should be mentioned that all involved players and structures might be located worldwide, which additionally complicates reporting. Whenever there is a transaction between a resident and a non-resident of a country, it is subject to balance of payments recording.
Generally, there are three ways to get a ship:

- buy a ship – a SPC/SPV, with the sole purpose of buying a ship, will be established.
- lease a ship – the ship is bought via financial leasing or a leasing structure (long-term financial structure), where the lessee is the economic owner of the ship and the bank (lessor) is the legal owner. The liaison between the lessee and the leasing company is governed by a leasing contract.
- charter a ship – in the majority of the cases the ownership of the vessel is mixed.

The value of a ship (defined as market value) is the value that the seller and buyer are ready to accept, and a sale is concluded. It clearly depends on markets, i.e. a ship ordered at a price of USD 50 million may have a value when delivered of only USD 10 million, or the other way round. The same applies to second-hand values. In today’s market, it is difficult to obtain market values. The general consideration is that it is cheaper to operate large vessels, because the costs are reduced and the margin increased.

The ship’s lifetime depends on the market cycle and its exploitation (for example a ship plying inland waters has much less corrosion). The ship is physically able to reach an age of 25–30 years. However, the actual years of exploitation of the ship depend on the phase of the economic cycle, the price of passing a class and the supply of ships on the market. For example, every 5 years the ship has to undergo technical checks in order to pass a class (according to the International Association of Classification Societies (IACS)).

The price of the checks is about EUR 4 million, and after the 2008 crisis owners in some cases preferred to sell ships aged 10 years or less to scrap yards, depending on the cost of special survey and maintenance. Lending banks, for instance, count a ship as having a 15-year lifetime in order to be sure that the ship will be able to repay the loan. In 2016 there was an oversupply of ships, and banks preferred to finance old ships rather than new shipbuilding in order not to add to the fleet.

The loan profile is usually up to 15 years from the delivery of the ship. When financing private shipowners, banks require having experienced shipping companies behind them, because during periods of crisis shareholders would not provide more equity and this would be a problem for the bank. The

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Figure 13: Building up a fleet and possible interactions when buying a ship

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Possible sources of information on vessel value: Clarksons.Net; National Security Inspectorates (NSI); SCFI (Shanghai Containerized Freight Index); Alpha liner; maritime brokers: Sales and Purchase, Cargo-Brokers and others.
basic sources of finance are:

- loans (including export credits and seller’s credits);
- bonds;
- financial leases;
- equity (either private or public).

Financing structures usually involve a combination of these various sources of funds, ending with highly complex deals.

More information on the transfer of the ownership of the ship is provided in the Compilers guide on European statistics on international trade in goods.

### 6.2 Interactions among institutional units

In the majority of cases, the ship owner or operator recruits a management company to manage the ship (in some cases the management company might even belong to the same ship owner). The practice is that the owner and the management company negotiate an annual budget for the management of the ship. The budget is transferred to the bank account of the management company (service provider) in advance, and at the end of the year, the accounting is finalised. As already discussed, the standard templates/formats of the contracts for the different ship management activities are set by BIMCO. The functioning of the cluster is illustrated in below.

The management company deals with either the legal or the economic owner of the ship. Except for the big liner companies that typically have bareboat charter agreements (rent the ship without crew and equipment), time/trip charter (including the management services) is more common nowadays. The operating expenses are normally covered by the legal owner or operator. The practice in the cluster is that both the legal owner and operator might outsource management activities to service providers (management companies), paying an annual fee, as described above. The legal owner (SPC/SPV) is responsible for transferring dividends (generated as profit from the activity of the ship – provision of transport service) to the ultimate beneficial owner.

**Box 14: Overview of the expenses in the cluster**

For example, the annual average budget for a medium-sized container vessel is around USD 2,120,000, including the following elements:

- Crewing expenses (crew wages and short staff wages) – 1,100,000;
- Technical advances\(^{(24)}\) – 600,000;
- Insurance – 300,000;
- Management fees (port taxes; direct supplies; vessel cash box; etc.) – 120,000.

It is typical for the cluster that all the supplies are VAT exempt.

In order to arrive from the annual budget to the accrual basis, as a proxy the pro-rata-method could be applied first. For a more conceptually correct basis, the compiler should request information from the reporting as well as any supplementary data.

Discussions with experts at the Task Force meeting in Oslo on 26-28 June 2019 showed that there is no standard time of duration of a certain type of charter. Every single contract is different from another. Compilers are recommended to decide on a case by case basis.

\(^{(24)}\) The technical advances include bunkers/lubs (and are not only repairs and spare parts). The bunkers are one of the most important running cost items.
Figure 14: Functioning of the cluster: players and relationships

Source: Eurostat

Figure 15: Simplified presentation of transactions recorded for balance of payments

Source: Eurostat
6.3 Respective transactions for providing transport services

6.3.1 Case study lease with the crew

In the example illustrated in Figure 16: Case A: Charter-in scheme lease with the crew, the SPV owns the management company. The ship owner is the legal and economic owner of the vessel. The chartered ship is fully crewed and equipped. The SPV pays all the expenses and takes care of all the management activities. The operator directs the commercial operations of the vessel, he is not responsible for providing crew and/or maintaining the vessel properly and pays the owner a daily rent fee (the charter) or price per tonnage of the freight transported. These are the cases for time charters with the crew, time/slot and voyage charters.

Figure 16: Case A: Charter-in scheme lease with the crew

Source: Eurostat
Figure 17: Case A: Charter-in scheme and balance of payments transactions reporting illustrates an example of transactions in the situation when:

- The ship owner and the management company have the same owner and are resident in country X;
- The operator is located abroad;
- All the management related expenses are paid to companies abroad;
- The family of the major shareholders are not in the economy of country X.

The management company acts for and on behalf of the legal ship owner. The SPV charters out the ship fully crewed and equipped (voyage/slot/space/time charter). The owner pays all the expenses and takes care of all the management activities. The operator pays only the daily fee (the charter) to the owner (SPV). The operator is the one providing the sea transport service and receiving earnings from freight/passenger transport. However, if the clients are not residents of country X, these transactions are not reported in the balance of payments of country X, as the operator is abroad. If both entities (client and operator) are located in different countries, the respective balance of payments recording should be under the following headings:

- Services: Sea transport (Passenger-SC11, Freight-SC12, Other than passenger and freight-SC13);
- Services: Other modes of transport (Passenger-SC31, Freight-SC32, Other than passenger and freight-SC33).

The transactions reported in balance of payments of country X are:
- all the transactions between the SPV and the operator;
- all the management-related expenses to the companies abroad (expenses for provision of services);
- paid dividends to the family of major stakeholders abroad (income from international investments; primary income).
6.3.2 Case study bareboat charter

In the example of the charter scheme shown in Figure 18: Case B: Bareboat charter scheme, the purchase of a ship is financed with a loan. Under a loan agreement the ship-owning company (SPV) is the legal owner and the bank holds the mortgage agreement. As long as the ship-owning company pays the agreed loan instalments (loans and interest) on time, the mortgage cannot be activated. Once the owner (SPV) charters out the ship to the operator under bareboat charter with a transfer of economic ownership, the operator becomes the new economic owner of the ship and has full operational control of the vessel. However, it is still the SPV which has the legal title of the ship and pays back the loan. The type of chartering agreement is not connected at all to the way the ship has been financed.

If the operator becomes the economic owner of the vessel itself, we have a situation similar to financial leasing. The vessel owner derecognises the vessel and recognises a receivable for the charter payments yet to be paid. The SPV holds the loan in its balance sheet, as assets are recorded. The charterer recognises the vessel as assets, and a payable for any charter payments yet to be paid, associated financial lease liability. Furthermore, the leased vessel should be depreciated over its economically useful life/lease term contract: also, the assets (vessel minus CFC)/liabilities are in equilibrium (liabilities minus repayments in subsequent years).

It is common for the cluster that loan payments effect every 14 days, however instalments can take place also at a frequency of 1 or 3 months, depending on the loan agreement.

Figure 18: Case B: Bareboat charter scheme

Source: Eurostat

Figure 19: Case B: Bareboat charter scheme and balance of payments transactions reporting illustrates an example of transactions in the situation when:

- the ship owner operates in the country X;
- the management company and the operator are located abroad;
- the owner has a loan in a local and/or foreign bank.

The management company acts for and on behalf of the operator (bareboat charter). The owner pays the capital costs and any loans, and all the expenses related to the management activities and operations of the ship are paid by the operator (who is the economic owner during the period of the bareboat charter) according to contractual agreement. The operator pays charter hire to the owner (SPV). The operator is the one providing the sea transport service and receiving earnings from freight/passenger transport. However, if the clients are not residents of country X, these transactions

---

(25) The ship owner may borrow not only from a bank, but also from its parent company or/and other group entities, as well as from private equity funds.
are not reported in the balance of payments of country X, as the operator is abroad. If both entities (client and operator) are located in different economies, the respected balance of payments recording should be under the following headings. Services: Sea transport (Passenger – SC11, Freight – SC12, Other than passenger and freight -SC13). Services: Other modes of transport (Passenger – SC31, Freight – SC32, Other than passenger and freight – SC33). If both entities (management company and operator) are located in different economies, then all the management-related expenses of the companies abroad (expenses for provision of services) are subject to balance of payments recording.

The transactions reported in balance of payments of country X are:
- all the transactions between the SPV and the operator (daily rental for exploiting the ship);
- expenses related to loans abroad;
- paid dividends to the family of major stakeholders abroad (income from international investments; primary income).

Figure 19: Case B: Bareboat charter scheme and balance of payments transactions reporting

Source: Eurostat
6.3.3 Case study standard ship management agreement

Case C refers to the case of standard ship management agreement (‘Shipman 98’ or equivalent; see Annex). This has been identified as the most common scenario for the Greek shipping cluster, associated with shipping companies engaged in international carriage of goods by sea, but applies in general to cases of standard ship management agreements. The structure presented in Figure 21: Standard ship management agreement and balance of payments transactions reporting has been compiled by combining information from: (a) detailed banking transaction data recorded in balance of payments, (b) contacts with associated banks, shipping experts and companies and (c) international databases.

Source: Eurostat
Typically, there is a ship management company (not depicted in the graph) which is legally registered abroad, with a branch/office whose main activities take place in country X. The activity is attributed to the branch by aligning with the indication of country of domicile as it appears in the international databases (as suggested by BPM6 guidelines). The local branch of the ship management company performs acts of operation of the vessel (there are cases where the operator is not the ship management company, but these are relatively few). Thus, in the diagram above the local branch of the ship management company is denoted as the operator and manager of the vessel.

Also there is a fully legitimate SPC/SPV (ship-owning company), which is the legal owner of the vessel, most often registered abroad. Note that the ship management company may manage numerous vessels, each one belonging to a different SPC/SPV (each SPC/SPV typically owns a single vessel for risk exposure and liability purposes). Note that where the registered owner (SPC/SPV) is incorporated under the laws of country X, the above diagram and the respective transactions are modified by moving the box of SPC/SPV inside country X.

Typical examples of standard ship management agreements are the BIMCO ‘SHIPMAN 98’ (see Annex: Examples of charter contracts) and ‘SHIPMAN 2009’ agreements. According to the standard ship management agreement terms, the freight revenues are received by the ship management company/operator on behalf of the ship owner. The ship management company uses these freight revenues to pay the operating expenses of the vessel (i.e. crew costs, insurance costs, bunker costs, port expenses and other operational and non-operational costs). The rest of the freight earnings are directed to the SPV/SPC, under the form of imports of sea transport services. The ship-owning company (SPC/SPV) pays management fees to the ship management company, purchases or sells the vessel and also receives the loan drawdowns and pays capital instalments and interest. Also, the ship-owning company (SPC/SPV) pays dividends to the shareholders. If a parent holding company exists, it is typically the parent holding company that distributes dividends to the shareholders after collecting the earnings from all the SPCs/SPVs of the group.
Complex ownership and operations arrangements in the shipping cluster explained of statistics on sea

The above setting is represented in the checklist that follows.

Table 14: Checklist to define legal owner and ship manager/operator

<table>
<thead>
<tr>
<th>Checklist</th>
<th>Legal owner (SPC/SPV)</th>
<th>Ship manager/operator (local branch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports of vessels</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Imports of vessels</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Freight earnings</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Repair/maintenance of vessels</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Bunker/fuel costs</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Port expenses, salvage &amp; other operational costs</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Insurance costs</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Crew wages</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Loan receipts</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Loan instalments</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

Source: Bank of Greece

Note: the above checklist was compiled based on historical bank transaction data recorded in the Greek balance of payments, after serially matching the transactors’ names with the ownership designation provided by the international databases. The results have been confirmed by contacts with associated banks, shipping experts and companies. The box ticking is indicative and could vary depending on the specific shipping structure.

The economic owner of the vessel (i.e. the good, which is associated with imports/exports and the capital costs) is the ship-owning company (SPC/SPV). The ship management company acts for and on behalf of the SPC/SPV (see term 3 – Basis of the agreement in the Annex). However, the ship management company provides the commercial operation of the vessel (see term 3.3 – Commercial management of the agreement in the Annex), i.e. the transport service and is responsible for the commercial decisions concerning the employment of the ship, and provides also management services.

The transactions reported in balance of payments of country X are:

- all the transactions between the SPV and the operator/management company (management fees and net freight earnings);
- freight revenues from the clients to the operator/management company;
- all the management/operation related expenses to the companies abroad;
- loan and interest receipts and payments between the SPC/SPV abroad and the domestic banks;
- paid dividends to the family of major stakeholders in country X.
7. THE POSSIBLE IMPACT ON MACRO-ECONOMIC STATISTICS OF IFRS 16 ON LEASES OF VESSELS AND AIRCRAFT

7.1 Introduction

The International Financial Reporting Standard (IFRS) 16 issued in January 2016 by the International Accounting Standard Boards (IASB) became effective in January 2019 for all companies using leases or rental agreements. This will imply changes concerning the treatment of leases compared to the previous accounting standard, International Accounting Standard (IAS) 17.

According to ESA 2010:

- (15.08) Operating leases are defined as ‘a lease whereby the legal owner is also the economic owner and accepts the operating risks and receives the economic benefits from the asset by charging for the use of it, in a productive activity’;
- (15.13) Financial leases are when ‘the lessor is the legal owner of an asset but the lessee is the economic owner as the latter bears operating risks and receives the economic benefits from using the asset in a productive activity’.

This notion of control in IFRS 16 distinguishes it from the ESA 2010 concept of risk and reward, and indicates that IFRS 16 is not aligned with ESA 2010.

The main issue is that IFRS 16 introduces a single lease accounting model which is not aligned with the ESA 2010. The new accounting standards don’t have the criteria convenient to statistical definitions that ESA 2010 did. On the one hand, the statistical point of view is much more interested in the notions of risks and benefits linked to the change in economic ownership\(^{(26)}\), in order to determine flows between different institutional units. On the other hand, IFRS 16 focuses on the control of assets, and requires lessees to recognise all leases on their balance sheets.

Under IFRS 16, leases are defined as ‘a contract, or part of a contract, that conveys the right to use an asset for a period of time in exchange for consideration’. The asset needs to be clearly identifiable. The existence of a lease should be determined at the inception of a contract, by considering if two conditions are verified: the right to obtain substantially all\(^{(27)}\) the economic benefits of the use of the asset, and the right to direct its use (if it is true only for a part of the term, this part should be considered a lease). However, in IAS 17, this transfer of the control of the asset to define the lease was not necessary.

IFRS 16 main change is the recognition of assets and liabilities from operating leases by the lessee,

\(^{(26)}\) ESA 2010 paragraph 7.17: ‘The economic owner is the institutional unit entitled to claim the benefits associated with the use of the asset by virtue of accepting the associated risks.’ For balance of payments purposes, this is important, as ESA 2010 paragraph 3.162 goes on to say that ‘imports and exports of goods occur when economic ownership of goods changes between residents and non-residents’.

\(^{(27)}\) The term ‘substantially all’ is not defined in IFRS 16. According to EY’s ‘Applying IFRS’, it should therefore be used similarly to what it was in IAS 17.
improving financial statements precision. This implies that all leases, independently of their operating or financial nature, will be recognised at the inception of the contract, the aim being to show all lease liabilities, regardless of type, on the lessee’s balance sheet.

**Box 15: Expected impact of IFRS 16**

<table>
<thead>
<tr>
<th>IAS 17 / Topic 840</th>
<th>IFRS 16 / FASB model*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Finance leases</strong></td>
<td><strong>Operating leases</strong></td>
</tr>
<tr>
<td>Assets</td>
<td>---</td>
</tr>
<tr>
<td>Liabilities</td>
<td>---</td>
</tr>
<tr>
<td>Off balance sheet rights / obligations</td>
<td>---</td>
</tr>
</tbody>
</table>

*Source: International Accounting Standards Board (IASB)*

The main reason behind this change is to respond to concerns about the lack of transparency of information about lease obligations on high value items such as aircraft or ships (low value items and leases under 12 months are excluded), which prevents investors and analysts to properly compare companies that borrow to buy assets with those that lease assets, without making adjustments.

This may have an impact, in air transport, shipping or other sectors, on gearing ratios by raising the lease liabilities (and therefore debt), according to the research made by Deloitte and Euromoney Institutional Investor Though Leadership. Gearing ratios are a group of ratios representing the financial state of the company by measuring financial leverage. For instance, having a too-high debt ratio may be a sign of instability for investors and stakeholders, which make firms sensitive to presenting positive gearing ratio figures. This is particularly important for big leasing contracts as in the case of aircraft and ships. Some effects on the management of airlines or ship operators (lessee side) may be visible (with no impact for lessors); to prevent the gearing ratios from being too high, some companies could potentially reduce the number of leased aircraft or vessels or the lease term.
The following table shows the potential median increase in debt for different industries, according to research conducted by PwC:

**Table 15: IFRS 16 – impact on industries**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Median increase in debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>All companies</td>
<td>22%</td>
</tr>
<tr>
<td>Retailers</td>
<td>98%</td>
</tr>
<tr>
<td>Airlines</td>
<td>47%</td>
</tr>
<tr>
<td>Professional services</td>
<td>42%</td>
</tr>
<tr>
<td>Health care</td>
<td>36%</td>
</tr>
<tr>
<td>Wholesale</td>
<td>28%</td>
</tr>
<tr>
<td>Transport and logistics</td>
<td>24%</td>
</tr>
<tr>
<td>Entertainment</td>
<td>23%</td>
</tr>
<tr>
<td>Telecommunication</td>
<td>21%</td>
</tr>
</tbody>
</table>

Source: PwC global lease capitalisation study

According to the same research, currency volatility may have an impact on the profit and loss statement. Most leases are paid in US dollars, and should be converted to local currency for reporting, creating a currency risk. A possible effect may be more renegotiations or simply new contracts denominated in local currency.

Therefore, IFRS 16 emphasises the distinction between services and leases (which was not the case previously) for instance through the need to identify and specify the underlying asset of the lease (if not, it is treated as a service).

The right-of-use model under IFRS 16 is used for accounting leases, reflecting the fact that the lessee has a lease payment due to the lessor for the usage of the underlying asset during the lease term. The right-of-use of the leased asset is transferred at the commencement date of the lease.

Lessors’ accounting practice remains globally unchanged, as they will continue to differentiate operating and financial leases as they did according to IAS 17, independently of whether the lease is short-term or of low value.

### 7.2 Lessee accounting

The **right-of-use asset** is initially measured in terms of costs, consisting of costs of different nature:

- the initial measure of lease liability (see below);
- pre- and post-contractual direct costs lowered by any lease incentives.

The lessee will then apply a cost model in order to account for the depreciation of the asset (considered an expense), identical to the previous IAS 16 standard (with potential impairments).

Note that in the case of a linear depreciation of the right-of-use asset, a lessee will have, a higher level of expenses (depreciation and interest) during the first periods, and lower amounts in the later periods due to the decrease in the amounts of interest expenses having an impact on the profit and loss account.

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(28) Transport and logistics regroup airlines, shipping and trucks leasing.
The lease liabilities are calculated as a function of the lease payments that are not realised at the commencement date. Later, this amount will be discounted either at the interest rate implicit in the lease, or the lessee’s incremental borrowing rate. Furthermore, interest paid on the remaining liability at each period shall be included under IAS 7 in the statement of cash flows.

Figure 22: Frontloading effect

Source: PwC ‘IFRS 16 – In Depth’

The lessee will elect whether to be exempted from these obligations in the case of a short-term lease (less than 12 months) or when the asset is of low value (lower than USD 5,000). In this case, there is no lease liability or right-of-use asset and the lease payments are identified as simple expenses. This was not the case in the previous IFRS accounting.

Initially, the right-of-use asset equals lease liability. However, due to the different discounting operations, the two amounts eventually diverge, and are the same (equal to 0) at the end of the lease term.

The following amounts, which may be useful for statistical compilers, are to be disclosed by the lessee: the depreciation of the right-of-use asset, interest paid on lease liabilities as well as the repayment of the principal, expenses for low-value or short-term leases, potential income from subleasing an asset, gains or loss from sale and leaseback transactions, and total cash outflow from the IAS 7 Statement of cash flows for leases.

7.3 Lessor accounting

For the lessor, the model of IFRS 16 is not substantially different from the previous IAS 17 standard.

For each lease, the lessor will be obliged to classify it as an operating or financial lease, based on whether the lease transfers the ‘risks and rewards incidental to ownership of an underlying asset’ (IFRS 16 paragraph 62).

If a financial lease is identified, the lessor must first remove the carrying amount of the underlying asset, and include at the same time an asset measured initially as a sum of the lease payments receivable by the lessor and the unguaranteed residual value (called gross investment in the lease). This amount is discounted by the interest rate implicit in the lease, and will be equal in each period to the net investment in the lease.

When the lessor recognises an operating lease, the accounting is similar to IAS 17. The lessor does not recognise a net investment in the lease, and accounts for lease payments as income on a systematic basis.

[29] The unguaranteed residual value is the part of the underlying asset for which the realisation is not guaranteed by the lessor, but only by a party related to the lessor.
7.4 Subleases

A sublease is a transaction where the lessor has a lease agreement with the original lessee, who then re-leases the asset to the sub-lessee, the initial agreement being still in force. The sublease may either be a separate lease agreement or the sub-lessee assumes the original lease.

**Figure 23: Standard case subleases**

![Diagram of sublease process]

- **Source:** EY ‘Applying IFRS’

**The original or head lessor** would continue to account for the original lease contract according to the lessor accounting standards.

**The intermediate lessor, also referred to as LILO (lease in, lease out) entity** is obliged to account for the lease as:

- an operating lease, if the head lease is a short-term lease. It accounts for the head lease as before, with a lease liability and a right-of-use asset on the balance sheet. The lease payments are recorded according to operating lease standards (see Table below);

- a financial lease, if it is not a short-term lease. Therefore, the right-of-use asset is derecognised by the original lessee and transferred to the sub-lessee for the sublease term. However, the original lease liability is kept by the intermediate lessor and he additionally recognises a net investment (also called lease receivable) linked to the sublease, in accordance with lessor accounting standards. Any difference between the removed right-of-use asset and the added net investment in the sublease is accounted for in the profit and loss account.

It is important to know that the term longevity of subleases is compared to the right-of-use asset economic life, and not the underlying asset economic life.

**The sub-lessee** accounting is in accordance with the lessee accounting standards with no particular treatment.
The following tables provide a summary of the accounting possibilities:

**Table 16: IFRS 16 – Impact on lease accounting**

<table>
<thead>
<tr>
<th>Original lessor (2 cases)</th>
<th>Intermediate lessor (2 cases)</th>
<th>Sub-lessee</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial lease</strong></td>
<td><strong>Financial lease (not short-term)</strong></td>
<td></td>
</tr>
<tr>
<td>Assets</td>
<td>Assets</td>
<td>Assets</td>
</tr>
<tr>
<td>Liabilities</td>
<td>Liabilities</td>
<td>Liabilities</td>
</tr>
<tr>
<td>(+) Net investment</td>
<td>(+) Net Lease investment</td>
<td>Assets</td>
</tr>
<tr>
<td></td>
<td>Lease liability (original)</td>
<td>Lease liability (sublease)</td>
</tr>
<tr>
<td>(-) Asset carrying amount</td>
<td>(+) Lease payments</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating lease</th>
<th>Operating lease (short-term)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(+) Lease payments</td>
<td></td>
</tr>
<tr>
<td>(-) Asset carrying amount</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Eurostat*

### 7.5 Sale and leaseback transactions

A sale and leaseback transaction corresponds to a transfer of an asset by the seller-lessee to the buyer-lessee along with a leaseback contract of the same asset.

The seller can thus use an asset (usually on a long-term basis) without owning it, which may be useful for taxation purposes. Furthermore, in the case of financial problems, the seller is with this operation able to sell the asset while continuing to use it, and not be obliged to take a loan or other operation to raise money. The interest of the buyer is usually to make a long-term investment in the asset.

*Figure 24: Sale and leaseback operation*

Source: Eurostat

With IFRS 16, these transactions will no longer be out of the balance sheet of the lessee, as all leases are recognised.

The sale is recognised as such when the control of the underlying asset passes from the seller to the buyer. To determine whether the transfer is a sale, the criteria defined in IFRS 15 (paragraphs 31–33)
are used: the transfer of the asset is considered a sale if the buyer obtains control of the asset (i.e. direct the use and obtain substantially all of the remaining benefits). In this case, the seller-lessee would derecognise the asset with a potential gain/loss. This was not required by the previous IAS 17 accounting standards.

The cash paid from the sale is considered as an amount receivable and a financial asset (seller) or payable as a financial liability (buyer). The leaseback would then be accounted as any other lease agreement by both sides.

If the sale is not recognised according to IFRS 16, the transfer is accounted as a regular financing transaction. The asset remains recognised by the seller/lessee, who introduce a financial liability for amounts received, decreasing when the payments for the lease are made, less the interest part.

On the other side, the buyer/lessor will recognise a financial claim and account for the amount paid as a receivable.

### 7.6 Some considerations

One of the possible positive effects of IFRS 16 would be the need for companies on the lessee side to differentiate better the lease and non-lease component of the contract, as the accounting treatment which was similar for operating lease and services will no longer be possible under the new system because the former become recognised in the balance sheet.

This is mostly important in the case of vessel charter (or aircraft wet lease), in order to properly identify the service and lease component. For instance, the employment of the crew would be the service part, and the ship would be the leased asset. However, lessees may elect according to IFRS 16 as a practical expedient not to separate non-lease and lease components, treating them as a single lease component. If so, the right-of-use asset and lease liability will be overvalued by the amount of non-lease components values.

In the case of the shipping industry, determining whether an entity has the control over a ship in the cases of:

- **time charter**: charterer assumes responsibility for much of the commercial operation of the ship, but does not assume responsibility for maintenance or ship repairs;
- **bareboat charter**: risks and liabilities primarily rest with the charterer, sometimes the economic ownership can be transferred from the legal owner to the charterer of the ship depending on the conditions set in the agreement and whether they fulfil the indicative criteria to define economic ownership (usually true if long term agreement).

may be particularly problematic, just as it is to determine the change of economic ownership in these cases.

Finally, obliging lessees to account for operating leases may lead to a double accounting issue: both the lessor and the lessee will record assets on their statements of financial position. Previously, the asset was only on the books of the lessor, who was the economic owner. After the change, the lessee will be obliged to account for a right-of-use asset (in proportion to the lease term) just like in the case of financial leases, as, in the same time, the lessor derecognising the asset only in the case of a financial lease and keeping it in the case of operating lease.

This could lead to an overestimation of GFCF (Gross Fixed Capital Formation) and thus also of CFC (consumption of fixed capital), it would be therefore useful to exclude the right-of-use asset from operating leases to avoid such scenario.

In the shipping industry, due to special tax regimes, there is no more need to distinguish operating and financial leases, which makes it more difficult to collect these items of information.

### 7.7 Example of lessee accounting: IAS 17 vs IFRS 16

Under IAS 17, the lessee accounts for the lease payment as it would for the payment of a service. The annual lease payment is constant and the operating lease has no impact on the assets and liabilities of the company.
### Box 16: Depreciation and interest under IFRS 16

<table>
<thead>
<tr>
<th></th>
<th>IAS 17/Topic 840</th>
<th>FASB model</th>
<th>IFRS 16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Finance leases</td>
<td>Operating leases</td>
<td>All leases</td>
</tr>
<tr>
<td>Revenue</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Operating costs (excluding depreciation and amortisation)</td>
<td>...</td>
<td>Single expense</td>
<td>...</td>
</tr>
<tr>
<td>EBITDA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation and amortisation</td>
<td>Depreciation</td>
<td>...</td>
<td>[Depreciation]</td>
</tr>
<tr>
<td>Operating profit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance costs</td>
<td>Interest</td>
<td>...</td>
<td>Interest</td>
</tr>
<tr>
<td>Profit before tax</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: IFRS.org

The lease payments were recorded under ‘operating expenses’ in the statement of profit and loss.
Table 17: Accounting of operating leases under IAS 17

<table>
<thead>
<tr>
<th>Operating lease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration (years):</td>
</tr>
<tr>
<td>Annual lease payment:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Profit &amp; Loss</th>
<th>Assets</th>
<th>Liabilities</th>
<th>Lease payments</th>
<th>Single expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>0.00</td>
<td>0.00</td>
<td>1 000</td>
<td>-1 000</td>
</tr>
<tr>
<td>Year 2</td>
<td>0.00</td>
<td>0.00</td>
<td>1 000</td>
<td>-1 000</td>
</tr>
<tr>
<td>Year 3</td>
<td>0.00</td>
<td>0.00</td>
<td>1 000</td>
<td>-1 000</td>
</tr>
<tr>
<td>Year 4</td>
<td>0.00</td>
<td>0.00</td>
<td>1 000</td>
<td>-1 000</td>
</tr>
<tr>
<td>Year 5</td>
<td>0.00</td>
<td>0.00</td>
<td>1 000</td>
<td>-1 000</td>
</tr>
</tbody>
</table>

Source: Eurostat
Under IFRS 16, a lease (either operating or financial) will be recorded in the profit & loss statement as ‘depreciation of the right-of-use asset’ and ‘finance costs’ and in the cash flow statement as the ‘repayment of the loan’ and ‘interest’.

However, it should be noted that the sum of ‘depreciation of the right-of-use asset’ and ‘finance costs’ is not equal to the lease payments, due to the fact that interest component is not constant over the lease term but is higher at the beginning of the lease term and decreases towards the end of it. The sum of ‘depreciation of the right-of-use asset’ and ‘finance costs’ can be used as an approximation of the lease payments, which will be more accurate in case of an enterprise having a portfolio of leases spread over time or for a group of enterprises.

Therefore, it is only true in the long run (at the end of the lease term) that the depreciation of the right-of-use asset and the interest will be equal to the total fee for operating leasing. There is a possibility that in the cases of an enterprise having a portfolio of leases spread over time or for a group of enterprises, because of the diversification of the contracts, these amounts to be equal on an aggregate level (especially if the discount rate is the same for all lease contracts).

Table 18: Accounting of operating leases under IFRS 16

<table>
<thead>
<tr>
<th>Operating lease (under IFRS 16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration (years):</td>
</tr>
<tr>
<td>Annual lease payment:</td>
</tr>
<tr>
<td>Implicit interest rate:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initial measurement of Right-of-use asset and lease liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROU asset</td>
</tr>
<tr>
<td>Lease liability</td>
</tr>
<tr>
<td>Annual depreciation of ROU asset (linear depreciation over lease term)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Balance sheet</th>
<th>Components of lease payment</th>
<th>Profit &amp; Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>Liabilities</td>
<td>Depreciation</td>
</tr>
<tr>
<td>Year 1</td>
<td>3,992.71</td>
<td>3,992.71</td>
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<tr>
<td>Year 2</td>
<td>3,194.17</td>
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<td>Year 3</td>
<td>2,395.63</td>
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<td>Year 4</td>
<td>1,597.08</td>
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<tr>
<td>Year 5</td>
<td>798.54</td>
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<tr>
<td>End of year 5</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Eurostat
7.8 References

- IFRS 16 Leases (January 2016) International Accounting Standards Board (IASB)
- Applying IFRS: A closer look at IFRS 16 Leases (December 2018) EYG No. 012807-18Gbl
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- Balancing the Books IFRS 16 and Aviation Finance (December 2017) Deloitte, Euromoney
  https://www.euromoneythoughtleadership.com/aviation-IFRS 16/

7.9 Eurostat information note on the impact on macro-economic statistics of IFRS 16 on leases

7.9.1 Introduction

The International Accounting Standards Board (IASB) has issued a revised standard for the accounting of leasing in the financial statements of lessees (IFRS 16), which applies to reporting periods from 1 January 2019. Contrary to the previous leasing standard (IAS 17), IFRS 16 does not align with the ESA 2010, which is applied by countries to prepare the national accounts and balance of payments statistics. IFRS 16 adopts a control-based approach on the use of an identified asset when assigning an asset to its economic owner, and requires all lessees to recognise a ‘right-of-use’ asset on their balance sheet for the right they have during the lease term, as well as a corresponding lease liability. For the lessor, no changes are foreseen due to the new accounting standard.

By contrast, the ESA 2010 maintains the operating and financial lease distinction for both lessors and lessees, and lays down that assets are recorded by the economic owner following the concept of risks and rewards.

The changes introduced by the IFRS 16 might thus create imbalances in national accounts and balance of payments statistics, both at domestic and cross-border levels, due to the asymmetric recording. The current ESA 2010 and the BPM6 treatment will continue to be applied for statistical purposes. Proposals are therefore presented on how to prepare statistical estimates under the new accounting standards so that they follow the terms under the ESA 2010 and the BPM6.

7.9.2 Recording of leases in business accounts

In January 2016, the International Accounting Standards Board (IASB, accounting standard-setting body of the IFRS Foundation) published an International Financial Reporting Standard on leases (IFRS 16). The new standard is effective from 1 January 2019, replacing the previous leasing standard IAS 17. All companies using rentals or leasing as a means of obtaining access to assets, and that report under IFRS, are affected.

IFRS 16 introduces a single lessee accounting model, which requires a lessee to recognise on its balance sheet assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. At the inception of a lease, a lessee is required to recognise the ‘right-of-use’ asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. The lessee records depreciation of the right-of-use asset and interest on the lease liability in the profit and loss statement. This will make the risks from operating leases visible in the lessee’s accounts.

Contrary to the previous standard IAS 17, lessees have to recognise an asset and the associated
liability for all lease arrangements, including those that were classified as operating leases under IAS 17. Given that the treatment of all types of leases is the same, lessees no longer distinguish between operating and financial leases.

Lessor accounting under IFRS 16 will not change compared to IAS 17. The lessor continues to classify its leasing arrangements as operating leasing or financial leasing, and to account for those two types of leasing arrangements differently. Operating leasing income received by the lessor is reported in income items, e.g. ‘rent, leasing and hiring income’. Regarding financial leasing, payments received by the lessor are treated as finance payments. The interest on financial leasing is reported in income items, ‘interest income’. The repayment of the principal is not recorded in profit and loss accounts. The change in lease debt due to reimbursement is reported in the cash flow statement.

IFRS 16 allows entities (particularly lessees) some options as they transition from IAS 17, and the choice of options may vary substantially across entities. In addition, changes in IFRS are not necessarily implemented in other business accounting standards (at least initially), so national General Agreed Accounting Policies (GAAP) may remain unchanged, at least for some time. And depending on the country, the application of IFRS 16 standards may not be required for all companies, in particular the smaller ones.
Box 17: Company’s stylised balance sheet under IFRS 16

Box 18: Company’s stylised income statement under IFRS 16

Source: IFRS.org
7.9.3 Leases in ESA 2010

Under the ESA 2010, there is a distinction between assets that are used under operating leases and financial leases. Under an operating lease, the legal owner (lessor) is also the economic owner and accepts risks and receives the benefits from the asset. The asset remains on the balance sheet of the lessor. The payments from a lessee to the lessor under an operating lease are considered as rentals and recorded as payments for a service. One indicative criterion of an operating lease is the legal owner’s responsibility to provide and pay for any necessary repair and maintenance of the asset.

On the contrary, a financial lease passes the economic ownership of an asset to the lessee, who accepts the risks and receives the economic benefits from the exploitation of the asset. The legal owner (lessor) is shown as granting a loan to the lessee and the lessee receives the asset. The asset is shown on the balance sheet of the lessee and not the lessor. The corresponding loan is shown as an asset of the lessor and a liability of the lessee. The ESA 2010 treats the payments from a lessee to the lessor as interest payments and repayment of principal. If the lessor is a financial institution, FISIM should be imputed.

Classification and treatment of leases in the ESA 2010 and in the old accounting standard IAS 17 were closely aligned. However, lessees preparing accounts according to the new IFRS 16 standard will not distinguish between operating and financial leases but account for all leases in the same way, similar to the treatment of financial leases under IAS 17. It can therefore be expected that respondents will not be able to distinguish between operating and financing leases in statistical surveys and that they will report on leases with the characteristics of operating leases as if they were financing leases. This could consequently have an impact on statistical data. Moreover, as the lessor’s accounting remains unchanged, an asymmetry between lessor’s and lessee’s reporting can be expected.

If no adjustments are made to the surveys after the adoption of IFRS 16, the following impact on the national accounts data may be expected:

For lessees with operational leasing expenses, intermediate consumption will go down and value added increase. Interest payments will increase. The impact on gross fixed capital formation, and on consumption of fixed capital and capital stock via the perpetual inventory method (PIM) model, will depend on how investments in ‘right-of-use’ assets are treated in the surveys. If they are recorded as tangible assets, the capital variables will increase, otherwise they should not change.

For lessees with financial leasing expenses there should not be any changes to intermediate consumption, value added and interest payments. If the ‘right-of-use’ assets are recorded as tangible assets, the capital variables should be more or less unchanged, otherwise they will go down.

This will again lead to imbalances between supply and use of operating leasing services and of capital goods that are subject to leasing.

7.9.4 Proposals to compile macro-economic data on the basis of IFRS 16 methodology

The ESA 2010 and the BPM6 require symmetrical counterparty transactions. The distinction between operating and financial leasing and the notion of economic ownership and the risk-and-reward concept are important in the accounting frameworks. Therefore, all recorded flows should reflect the distinction between operating and financial leasing.

Eurostat is of the view that bridging of IFRS 16 indicators, invoice reporting and changes of national compilers’ surveys and questionnaire could result in suitable information for compilation purposes under the terms of the ESA 2010 and the BPM6.

Surveys of lessees applying IFRS 16 probably need to be adjusted for use by national accounts and balance of payments. The adjustments will vary depending on how closely the survey is related to business accounting concepts. One option is to ask respondents to maintain the distinction between operational and financial leasing. Another option is to make adjustments after data collection, based on additional information collected either in the survey or from other sources, such as direct contact with companies. There is also the possibility to use data from lessors to obtain mirror data for lessees, where the counterparties are known.

Adjustments may be based on the ‘invoice’ when available e.g. in the SAP accounting system of the lessee or on a model of the data related to ‘right-of-use’ assets. The model would ideally be based on available detailed financial lease data and estimate the stocks/flows for the captured leases through
The possible impact on macro-economic statistics of IFRS 16 on leases of vessels and aircraft

to the end of their current lease term. New financial leases could be added to the model over time, when a new right-of-use asset is identified which aligns with the ESA 2010 definition of a financial lease. All residual leases would be considered as operating leases.

The lease debt maturity breakdown may be used as an indicator to estimate principal and interest. Separating components e.g. of an aircraft group fleet presented as an operating lease could be the starting point to partition the reimbursement (repayment of the principal) of a lease debt and interest on lease debt according to the share of operating leasing to total leasing. A source could be the information available in the IAS 7 Statement of cash flows.

Experts from accounting, tax and finance advisors and the business community have been consulted for drafting Chapter 7 and Chapter 8.

Eurostat has also launched a general consultation of the working groups for national accounts and balance of payments in summer 2020, in order to obtain information on how key stakeholders (will) address expected issues and possible changes in behaviour by charterers/leasing businesses.

7.9.5 Summary

The changes introduced by the international accounting standards might create imbalances in macroeconomic statistics due to the asymmetric nature of the reporting by the statistical units. Statistics are compiled in accordance with the ESA 2010 and the BPM6, and recognise the operating/financial leasing distinction and concept of risks-and-reward for economic ownership. IFRS 16 focuses on the notion of control.

There are several ways to handle the accounting changes. One option is to modify statistical surveys and questionnaires in which national compilers collect data from the accounting systems of statistical units. Further options are to use the ‘invoice’ when available e.g. in the SAP accounting system or to model the flows on available stocks/flows data related to ‘right-of-use’ assets. There is also the possibility to use data from lessors to obtain mirror data for lessees, where the counterparties are known.

These issues will need to be addressed in several ways, through discussions with business accounting experts, as well as with compilers and users of business and macroeconomic statistics.
8. RECOMMENDATIONS

8.1 Economic ownership

BPM6 CG paragraph 12.29 notes that ‘Owners and operators may enter into a number of leasing or chartering arrangements. Various terms are used to describe these arrangements, but a broad description should suffice for purposes of the Guide. For balance of payments purposes, only leases with crew are included under transport; operational leases (without crew) and financial leases are classified elsewhere (see also section ahead on operating leasing)’.

BPM6 CG paragraph 12.30 says that there are ‘bare boat or bare bottom charter arrangements whereby an owner leases a vessel to an operator, who is responsible for equipping the vessel and supplying the crew’. BPM6 CG paragraph 12.32 says that ‘There are time charter arrangements whereby a vessel is leased to an operator who provides a crew. The bare boat or bare bottom charter is a form of time charter. A time charterer may also lease a vessel from a bare boat charterer. For balance of payments purposes, the time charterer should be regarded as the operator, although if there are several time charters involved, the charterer supplying a crew is regarded as the operator’. BPM6 CG paragraph 12.31 concludes that ‘these leases usually cover long periods but may also cover short periods. For all lease types, the compiler should make sure the leases are leases with crew and not operating (without crew) or financial leases, before including them under transport. If, for example, a vessel is legally owned by a bank or other type of financial institution, the compiler should, for balance of payments purposes, usually regard the vessel as being economically owned by the lessee (financial lease)’.

BPM6 CG paragraphs 12.32 and 12.33 say that there are time charter arrangements whereby a vessel is leased to an operator who provides a crew. The bare boat or bare bottom charter is a form of time charter. A time charterer may also lease a vessel from a bare boat charterer. For balance of payments purposes, the time charterer should be regarded as the operator, although if there are several time charters involved, the charterer supplying a crew is regarded as the operator. In addition, there are voyage charters. For example, an exporter or an importer may hire, for a single voyage, a vessel to ship a bulk commodity such as wheat or minerals. The voyage charterer has no responsibility for operation of the vessel and is not, therefore, considered the operator. A variation of voyage charter, space charter, or slot charter consists of an arrangement in which space on the vessel, rather than the whole vessel, is hired. Payments for voyage, space, and slot charters should be recorded as freight under transport.

BPM6 paragraph 5.56 lays down that ‘A financial lease is a contract under which the lessor as legal owner of an asset conveys substantially all the risks and rewards of ownership of the asset to the lessee. In other words, the lessee becomes the economic owner of the asset. Under a financial lease, the lessor is shown as making a loan to the lessee with which the lessee acquires the asset. Thereafter the leased asset is shown on the balance sheet of the lessee and not of the lessor; the corresponding loan is shown as an asset of the lessor and a liability of the lessee.’ According to BPM6 paragraph 10.17 (f), goods acquired by a lessee under a financial lease should be included under general merchandise. Because the lessee is the economic owner, a change of ownership between the seller of the goods and the lessee is recorded at the start of the lease. The lessor has legal title but
does not have economic ownership. In contrast, goods under operating leases do not change ownership to the lessee, and thus are not included in general merchandise when delivered to the lessee.

8.2 Sea and air transport arrangements with change of economic ownership

8.2.1 Demise or bareboat charter

In demise or bareboat charter arrangements the charterer takes full control of the vessel along with the legal and financial responsibility for it. The charterer pays for all operating expenses, including fuel, crew, port expenses and hull insurance. The demise shifts the control and possession of the vessel. These arrangements can be difficult to determine whether there is a change in economic ownership or not.

Bareboat charters are a form of time charter, whereby the vessel is leased to an operator who provides the crew. The charterer supplying the crew is regarded as operator. In case of long-term bareboat charters the charterer is considered as operator (BPM6 CG paragraph 622). For bareboat charters of the financial leases-type the lessee of the vessel bears the responsibility for crewing and similar matter. Only for long-term bareboat charters a change of economic ownership is concluded.

8.2.2 Financial and operating leasing

National accounts and balance of payments manuals provide definitions of operating and financial leasing that look at the economic substance of the transaction. In the case of operating leasing, according to the ESA 2010, the service provided by the lessor goes beyond the mere provision of the asset and may include responsibility for providing repair, maintenance or replacement at short notice (ESA 2010 paragraph 15.09 and paragraph 15.11). Operating leasing in line with ESA 2010 definitions shall be excluded from general merchandise and thus also from ITGS since it is considered as a service. In the case of financial leasing the lessor remains the legal owner (providing a loan to the lessee), and the lessee becomes the economic owner. The ESA 2010 paragraph 15.19 also specifies that ‘any corporation that specialises in financial leasing, even if called a property company or aircraft leasing company, shall be classified as a financial intermediary offering loans to the unit leasing assets from them’. Financial leasing contracts in line with ESA 2010 definitions should be considered within the scope of international trade in goods statistics (ITGS).

By way of illustration, for financial leasing, a change of economic ownership from lessor to lessee is concluded. The SPV is the legal owner of the vessel and thus the lessor. Only in cases where the debtor is in default, for instance in the case of non-redemption of a bank loan, does the bank acquire legal ownership of a vessel and become a lessor.

The differentiation in the treatment of operational and financial leasing results from a more in depth analysis on the available documents and other sources. The analysis of the documents to better identify the economic ownership is an important issue, both in aircraft and in vessels. The decision on the inclusion of the financial leasing as an ITGS transaction (a good) or the inclusion of the operational leasing as an ITSS transaction (a service) requires a thoroughly analysis and is not a linear process.

8.3 Sea and air transport arrangements without change of economic ownership

8.3.1 Voyage charter

A voyage charter is the hiring of a vessel and crew for a voyage between a loading and a discharging port. The charterer pays the vessel owner on a per-tonne or lump-sum basis. The owner pays the port costs (excluding stevedoring), fuel costs and crew costs. Given that the substance of the contract has been verified, this arrangement usually does not indicate change of economic ownership and shall not therefore be included in ITGS, but it is included in ITSS.
8.3.2 Time charter

A time charter is the hiring of a vessel for a specific period of time; the owner still manages the vessel but the charterer selects the ports and directs the vessel where to go. The charterer pays for all the fuel the vessel consumes, port charges, and a daily 'hire' to the owner of the vessel. Given that the substance of the contract has been verified, this arrangement usually does not indicate change of economic ownership and shall not therefore be included in ITGS, but it is included in ITSS.

Payments related to time and voyage charters with crew are considered as the provision of freight transport services. For time and voyage charters with crew, no change of economic ownership from the legal owner to the charterer-in is concluded.

Rentals and time charters without the crew are considered as operating leases services (BPM6, paragraph 10.77, Box 10.3). Payments by the operator to owners should be recorded under ‘other business services – operating leasing services’.

8.3.3 Dry leasing

Dry leasing (covers provision of an aircraft without insurance, crew, ground staff, supporting equipment, maintenance, etc.), which is more usual for the longer-term leases and is recorded, for balance of payments purposes, under operating leasing services—other business services. The aircraft industry also uses combinations of wet and dry when, for example, the aircraft is wet-leased to establish new services and then, as the airlines flight or cabin crews become trained, they are switched to a dry lease.

Payments related to dry leases (without crew) are considered as expenses for operating leases. For dry leases without crew no change of economic ownership from the legal owner to the airline charterer-in is concluded.

8.3.4 Wet leasing

Wet leasing (covers provision of an aircraft, complete crew, maintenance, and insurance for which payment is by hours operated), which is normally used for short-term leasing (for balance of payments purposes recorded under transport).

Payments related to wet leases (with crew) are considered as the provision of freight transport services. For wet leases with crew no change of economic ownership from the legal owner to the airline (charterer-in) is concluded.

8.4 Foreign direct investments

Treatment of transactions between the owner/investor and branch/office in case such flows involve direct transfer of freight receipts to the owner. These transactions might be considered as either ‘FDI other capital’ or ‘services/transport’. OECD BD4 paragraph 337 says: ‘Transactions related to branches which engage in real economic activities and have income statements should to be included under FDI. There are in addition entities which are set up to increase sales of the institutional units that established them but that have no sales of their own, such as ticket sales offices and business promotion offices’.

An FDI relationship would be expected in case there is a legal or equity relation between the SPV and the ship management company/operator. Transactions between branch/office and owner/investor should be recorded under ‘FDI other capital’.

No FDI relationship would be expected in case of ‘standard ship management agreements/time charter agreements. Transactions between branch/office and owner/investor should be recorded under ‘services/transport’.
8.5 Standard ship management agreement

Non-resident ship management companies set up branches in a host country, with main economic activities, and operations are attributed to these branches. The non-resident ship management company is different from the legal owner (SPV). The link between the branch and the SPV is a ‘standard ship management agreement’. Secondly, the office of the branch is fully consolidated with the non-resident ship management company and both are considered as one entity. There is no FDI equity relation between the branch/ship management company and the SPV, i.e. they are completely different companies.

Practical expedient: in order to identify the operator who provides the transport services, in the database the variable ‘commercial operator’ is checked. The commercial operator provides the transport services and is responsible for the commercial direction of a vessel. The commercial operator acts on behalf of the legal ship owner under a ‘standard ship management agreement’. The role of a branch is addressed to the resident operator, who receives directly the freight earnings, pays the crew and makes current expenses. The net freight earnings are transferred to the SPV, who is the economic owner.

8.6 Relevance of the flag

OECD BD4 paragraph 333 clarifies that ‘The flag of a ship determines the authority that is responsible for overseeing the operations of the ship and may help determine the jurisdiction where business disagreements are litigated. The flag is often a ‘flag of convenience’ – that is, neither the ship owner nor its operator may have any business operation in the country whose flag is flown. Therefore the country of registration of the mobile equipment (e.g. of the ship) is not considered in determining the residency of any of the units involved in the shipping activity (that is, the owner or operator of the ship, and the ticket sales and business promotion offices), and so it is not relevant to the discussion of whether there may be a direct investment relationship’.

It was concluded that in Intrastat/Extrastat the flag could be used as a trigger to analyse whether there is a change of economic ownership of the vessel or not. In cases where the flag is used as a criterion to approximate a change of economic ownership for practical reasons, it should be further analysed at a later stage whether the national accounts principles are respected.

As discussed in Chapter 3.3, the flagging in/out of a ship is not considered to indicate a change in economic ownership. The flag of convenience is for the legal registration of the ship and the flag of a ship is not considered relevant for determining the residency of its owner or operator. However, the registration of a ship under a specific flag might be a trigger for further examination whether there was a change of economic ownership or not.

In practice, the flag registration is mainly chosen under quite specific reasons (economic reasons, labour, environmental standards) and in most cases different from the nationality of the economic owner. Statistical compilers instead use the nationality of the invoice recipient of the delivered goods since it is usually the economic owner who is paying for the goods (see also Chapter 8.8).

8.7 Ownership structures

The holding company should be considered as ultimate beneficial owner (UBO) and economic/legal ownership attributed to SPV/operator, depending on the underlying contract between SPV and operator. An SPV fulfils the criteria to be the economic owner according to the manuals, apart from long-term bareboat charter and financial leasing. The SPV purchases a vessel from the shipyard and financed with a bank loan. It receives all profits from the operation of the ship and accepts all risks. Shareholders as physical persons (owners) are considered as UBO, as they receive dividends.

The UBO cannot be the economic owner. Economic business accounts of the UBO show only dividends in the profit/loss account and the shares in the annual accounts. An asset (vessel) is not recorded in the accounts. By way of illustration: UBO resident in Germany sets up a SPV in Cyprus, the latter being the legal owner of a vessel. This ship is flagged out to Greece and operations occur on the Greek economic territory. Due to a short-term leasing agreement there is no transfer of economic ownership from Cyprus to Greece. The Cypriot legal owner is simultaneously the economic owner of
the ship: Cyprus receives revenues (leasing fees), and the company in Greece operating the vessel receives revenues for the provision of sea transport services. Both net revenues are transferred to the UBO resident in Germany.

Also related to change of economic ownership principle, the task force concluded that dividends paid to the ultimate beneficial owner are not relevant in the decision making for the economic ownership of vessels.

8.8 Goods delivered to vessels and aircraft

Standard rules are not applicable for deliveries of goods to ships and aircraft. Important here is the identification of partner country (partner country of economic owner). It is important to note that it is very difficult to verify whether the flag correctly identifies the economic owner of a vessel or not, due to the huge amount of monthly transactions compiled for ITGS purposes. The economic ownership should be approximated by indicators: compilers could use a flag under which a vessel is flying or any other indicator as an indication of economic ownership.

A further issue related to the implementation of economic ownership concerns sea products. Products from the sea are defined for statistical purposes as belonging to the country in which the economic owner of the vessel conducting the catch of fish is assigned to. Sea products are considered to be fishery products or other products extracted from the sea or produced on vessels that have not yet been landed by the seagoing vessels in the port of the Member State. Sea products belong to the country in which the economic owner of the vessel conducting the catch of fish is assigned. Customs data focus on the economic territory where the sea products were acquired or caught. As the partner country is determined on the basis of the economic ownership of the vessel, and due to difficulties in capturing the trade, additional data sources such as fishery statistics may be used.

For goods delivered to sea-going vessels and to aircraft, the economic ownership of the vessel or aircraft is used to determine the partner country.

A further exemption of the concept of economic ownership relates to goods obtained from seabed or subsoil or produced by offshore installations. There is a deviation from the concept of economic ownership: offshore installations belong to the country having the exclusive right to exploit the seabed and subsoil, i.e. this country is the economic owner.

The Task force concluded that the flag could be used as a suitable approximation for economic ownership in cases of goods delivered to vessels.

Customs data are an important data source for the compilation of international trade statistics. For national compilers some procedures and concepts used by customs authorities and reflected in customs data are relevant. There are the difficulties in identifying the transactions related to deliveries of goods to ships and aircraft in the customs data, generally applying the rule of the flag of a ship or aircraft. Further for the treatment of sea products, all customs clearances made by national flag vessels outside the national territory are out of the scope of national customs data.

8.9 Arrangements in sea and air transport based on IFRS 16 reporting

8.9.1 Long-term bareboat charter and long-term dry lease

Long-term bareboat charter and long-term dry lease will typically meet the IFRS 16 definition of a lease, because the charterer controls the use of a specific vessel or aircraft. The charterer exclusively uses the vessel or aircraft, and receives substantially all of the economic benefits from the vessel during the period of use. He has the right to direct the use of the asset because it has full discretion over how often and where the asset can sail or fly. The charterer is responsible for providing the crew and maintaining the vessel or aircraft; in doing so, he controls the crew regarding its activity in operating and maintaining the vessel/aircraft. The charterer has the ability to operate the vessel/aircraft on its own, but may also contract with a third party to operate the vessel/aircraft. Contracts generally do not contain any non-lease components.
Recommendation:

Long-term bareboat charters and long-term dry leases of the financial leases type recorded by reporters applying IFRS 16 should be treated as leases implying a change of economic ownership. Payments could be recorded as rentals under ‘other business services’.

8.9.2 Voyage charter

Voyage charters are not likely to meet the IFRS 16 definition of a lease, as the charterer typically does not have the right to direct the use of the ship, how and for what purpose the ship is used. They are rather contracts for the provision of a service by the vessel owner/operator. The cargo will occupy substantially all of the capacity of the ship. The contract specifies the cargo to be transported on the ship and the dates of loading/discharging. The ship is an identified asset, as it is explicitly specified in the contract, and the ship owner does not have the right to substitute that specified ship. The charterer has the right to obtain substantially all of the economic benefits from the use of the ship over the term. How and for what purpose the ship will be used is predetermined in the contract: transport of specified cargo within a specified timeframe. The charterer thus has no right to change how and for what purpose the ship is used during the period of use.

Recommendation:

Voyage charters recorded by reporters applying IFRS 16 should be treated as transport service contracts implying no change of economic ownership.

8.9.3 Time charter

Time charters are likely to contain both a lease (right to use the ship) and service component (operation and maintenance of the ship by the ship owner). The charterer enters into a time charter with the ship owner who provides transport services for a fixed period, using a ship which is explicitly specified in the contract. The charterer provides date of travel and arrival and departure locations. The ship owner operates and maintains the ship and is responsible for cargo transport. In a time charter, the charterer has the right to direct the use of the ship, makes the relevant decisions about how and for what purpose the ship is used, because it decides whether, where and when the ship sails, as well as the cargo that it will transport. The charterer has the right to change these decisions throughout the period of use. Although the operation and maintenance of the ship are essential to its efficient use, the ship owner’s decisions in this regard do not give the right to direct how and for what purpose the ship is used. Instead, the ship owner’s decisions are dependent on the charterer’s decisions about how, and for what purpose, the ship is used.

Recommendation:

Time charters with the crew recorded by reporters applying IFRS 16 should be treated as transport service contracts implying no change of economic ownership.

Time charters without the crew recorded by reporters applying IFRS 16 should be treated as a lease of the operational leases type, implying no change of economic ownership.

8.9.4 Wet leases with crew

Generally, wet leases (with crew) are likely to contain both a lease (right to use the aircraft) and service component (operation and maintenance of the aircraft by the owner).

However, wet leases are not likely to meet the IFRS 16 definition of a lease, if the supplier is permitted to substitute the aircraft at any time and must substitute if the aircraft is not in operating condition. The supplier is responsible for operating the aircraft. The supplier will benefit from using the aircraft at other times, and the airline does not have the right to obtain substantially all of the economic benefits from the use of the aircraft.

Recommendation:

Wet leases (with crew) recorded by reporters applying IFRS 16 should be considered as the provision of freight transport services. For wet leases (with crew) no change of economic ownership from the legal owner to the airline (charterer-in) is concluded.
8.10 Vessel pool arrangements

Vessel pool arrangements (time charter arrangements) between ship owner and pool contain a lease. There is a specified asset, as the vessel is named in the arrangement between the ship owner and the pool and generally, there are no substitutions rights. The pool has the right to receive substantially all of the economic benefits of the use of the asset. The pool through the pool manager directs the use of the ship owner’s vessel.

The arrangement is between the pool manager and the end charterer, as the contract is concluded between the end charterer and the pool. The pool is responsible for managing issues and has the power to decide which vessel in the pool it will use to fulfil the contract with the end charterer. The pool sets prices, and the end charterer will pay for the exploitation of the vessel.

Generally, the term related to a pool’s use of a ship owner’s vessels is less than one year. The ship-owner is able to remove its vessel from the pool at any time at short notice. There are no lease payments, because the pool will pay a variable amount to each ship owner on the basis of the pool’s performance and the allocation of points to each ship owner.

Recommendation:
The ship owner (lessor) should treat the pool arrangement as providing services using his assets.
The pool (lessee) should treat the arrangement similar to operating leasing, due to the short-term nature (short-term lease exemption). This results in the pool accounting for the payments as provision of sea transport services.

End-charterer should treat the arrangement as a purchase of sea transport services.

8.11 Modelling of payments related to financial and operating leasing

8.11.1 Explanatory note

An estimate of operating leasing expenses of lessees could be modelled. The aim here would be to estimate the value that would have been reported had the respondent continued to report under previous accounting standards. The lessee will recognise:

- in the balance sheet: a lease liability at the present value of the future lease payments and a ‘right-of-use’ asset to an equal amount plus initial direct costs and restoration costs.
- in profit and loss accounts: the interest on the lease liability and the depreciation of the ‘right-of-use’ asset.

Table 19: Components underlying balance of payments reporting available in the IFRS 16 based accounts

<table>
<thead>
<tr>
<th>Financial statement</th>
<th>Lessee presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of financial position</td>
<td>‘Right-of-use’ asset presented either:</td>
</tr>
<tr>
<td>Separately from other owned assets, or together with other assets as if they were owned, with disclosure of the balance sheet line items that include ‘right-of-use’ assets and their amounts.</td>
<td></td>
</tr>
<tr>
<td>Lease liabilities presented either:</td>
<td></td>
</tr>
<tr>
<td>Separately from other liabilities, or together with other liabilities with disclosure of the balance sheet line items that include lease liabilities and their amounts.</td>
<td></td>
</tr>
</tbody>
</table>
Lease-related depreciation and lease-related interest expenses are presented separately (i.e. lease-related depreciation and lease-related interest expenses cannot be combined). Interest expense on the lease liability is a component of finance costs.

Cash payments for the principal portion of the lease liability are presented within financing activities.

Cash payments for the interest portion of the lease liability are presented based on an accounting policy election in accordance with IAS 7.

Lease payments for short-term leases and leases of low value assets not recognised on the balance sheet and variable lease payments not included in the lease liability are presented within operating activities.

Non-cash activity (e.g. the initial recognition of the lease at commencement) is disclosed as a supplemental non-cash item.

Lessee accounting under IAS 17 will change compared to IFRS 16. The lessee will recognise a lease liability at the present value of the future lease payments and a ‘right-of-use’ asset to an equal amount plus initial direct costs and restoration costs. In profit and loss accounts, a lessee will recognise the interest on the lease liability and the depreciation of the ‘right-of-use’-asset.

However, it will be necessary to estimate the value that would have been reported had the respondent continued to report under the previous accounting standards, in order to be aligned with the ESA 2010. Consequently, an estimate of operating leasing expenses could be modelled. In order to model transactions related to operating leases, the lease debt maturity breakdown qualifies as an indicator to estimate principal and interest. Separating components e.g. of the aircraft group fleet presented as operating lease could be the starting point to partition the reimbursement (repayment of the principal) of a lease debt and interest on lease debt according to the share of operating leasing to total leasing. If such modelling is necessary to ensure the distinction between operating and financial leases, further investigation of the information available should be undertaken.

The accounting view could align with the provisions of the ESA 2010 and Regulation (EC) No. 184/2005 in the case of the underlying contract qualifying as an operating or financial lease as follows:

The terms in accounting:

Components of reimbursement (repayment of the principal) and interest on lease debt represent the corresponding terms in statistics: operating lease as ‘other business services’ in balance of payments (SJ3) and ‘operating leases services’ in ITSS (SJ33).

Component of reimbursement (repayment of the principal) and interest on lease debt would represent the corresponding terms in statistics: the repayment of liability (F.4) and interest expenses (D.41).

In the IAS 7 statement of cash flows, a lessee is required to classify cash payments for the principal portion of the lease liability within financing activities. Cash payments for the interest portion of the lease liability are recorded under operating activities. Furthermore, short-term lease payments, payments for leases of low-value assets and variable lease payments not included in the measurement of the lease liability are classified within operating activities.

8.11.2 Development of a financial leasing model for balance of payments and national accounts purposes

A model should capture all available information on existing financial leasing arrangements and show the stocks/flows for these leases through the term of use until the expire date of the contract. New leases of the financial leases-type should be added to the model over time when a ROU asset is recognised. All remaining leases should be considered as leases of the operating leases-type. Flows/positions could be estimated as demonstrated above.
<table>
<thead>
<tr>
<th>Underlying contract</th>
<th>Terms in accounting (IFRS 16)</th>
<th>Terms in statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating lease</td>
<td>reimbursement (repayment of the principal) + interest on lease debt</td>
<td>in balance of payments: other business services (SJ.3) in ITSS: operating leases services (SJ.33)</td>
</tr>
<tr>
<td>Financial lease</td>
<td>reimbursement (repayment of the principal) + interest on lease debt</td>
<td>repayment of liability (F.4) interest expenses (D.41)</td>
</tr>
</tbody>
</table>

*Source: Eurostat*
8.11.3 FISIM

Financial income flows could be treated as interest payments, similar to how they would be recorded under conventional financial lease arrangements. If the lessor is a financial institution, FISIM is generated for leasing arrangements of the financial leases type, and income flows would need to be partitioned into a service component and a property income flow.

Recommendations:

For lessors classified in S.122 and S.125 FISIM output has to be imputed.

The component of reimbursement (repayment of the principal) and interest on lease debt would represent the corresponding terms in statistics: the repayment of liability (F.4) and interest expenses (D.41) and should be used to estimate payments related to operating leasing and financial leasing.
### Table 21: Types of sea transport contractual agreements and their recording

<table>
<thead>
<tr>
<th>Contractual agreement</th>
<th>Description</th>
<th>Charterer/operator</th>
<th>Legal owner</th>
<th>Recording of transactions</th>
<th>Balance of payments</th>
<th>ITGS</th>
</tr>
</thead>
</table>
| Voyage charter         | Exporter/Importer hires the vessel for a single (multiple) voyage, **with crew** | • **NOT** responsible for the operation of the vessel  
• **NOT** considered as the operator of the ship | No change of economic ownership (economic ownership rests with the legal ownership) | Freight under transport (BPM6 CG paragraph 12.33) | SC12 | Not included in ITGS, but it is included in ITSS. |
| Slot/space charter     | A space in the vessel is hired, **with crew** | | | | | |
| Time charter           | Rentals, charters or operating leases **with crew** | • Directs the commercial operations of the vessel  
• Pays all voyage expenses (i.e. bunkers, port charges and canal dues)  
• Pays handling costs  
• **NOT** responsible for providing Crew and/or maintaining the vessel properly | No change of economic ownership (economic ownership rests with the legal ownership) | Classified under transport (BPM6 CG paragraph 12.29; 12.32.) | SC11; SC12; SC13; SC31, SC32, SC33 | Not included in ITGS, but it is included in ITSS. |
| Rentals, charters or operating leases **without crew** | BPM6 CG paragraph 12.27, Footnote 4: Equipment is rented without the crew, the compiler should record operating lease payments, which are made by the operator to the owner, under other business services-operating leasing services.  
BPM6 paragraph 10.77: Rentals and time charters without crew included in operating leasing services. | No change of economic ownership | Classified under other business services-operating leasing services | | | Not included in ITGS, but it is included in ITSS. |
Table 21: Types of sea transport contractual agreements and their recording

<table>
<thead>
<tr>
<th>Bareboat charter</th>
<th>Leases without crew</th>
<th>Bareboat charterer takes full control of the vessel along with the legal and financial responsibility</th>
<th>No change of economic ownership</th>
<th>Classified under other business services-operating leasing services (BPM6 CG paragraph 12.27, 12.29 – 12.31)</th>
<th>Decision on the inclusion in ITGS depends on the results of investigation. If not included in ITGS, should be recorded in ITSS.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pays all operating costs</td>
<td></td>
<td>SJ33</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pays voyage costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arranges the crew, maintenance, insurance, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Usually has the right to purchase the ship during or at the end of the charter period.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The demise shifts the control and possession of the vessel from lessee to charterer. These arrangements can be difficult to determine whether there is a change in economic ownership or not.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leases without crew</td>
<td>Long-term bareboat charterer is to be considered the operator of the ship when it</td>
<td>Change of economic ownership (the decision whether the transaction is included in goods or services depends on further investigation. Important to note that in case of a long term bareboat charter there is not always a change of economic ownership. But it is not the case if other conditions are not fulfilled.</td>
<td>Depending on contractual arrangements (see results of survey)</td>
<td>Depending on contractual arrangements in case a ship imported into the country under a long-term bareboat charter to be debited as an import.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Takes full control of the vessel along with the legal and financial responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pays all operating costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pays voyage costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Arranges the crew, maintenance, insurance, etc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Usually has the right to purchase the ship during or at the end of the charter period and or fulfils other indicative criteria.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30 This handbook suggests an exchange of information if the results of this investigation lead to its inclusion in ITGS. Hence double counting needs to be avoided in national accounts between the data received from ITGS and BOP. This exchange of information should be established between the statistical domains with a country as well as between the countries concerned.
<table>
<thead>
<tr>
<th>Financial Leasing</th>
<th>Financial lease gives rise to a loan, therefore the transactions are excluded from services</th>
<th>Economic owner of the ship</th>
<th>Change of economic ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Financial leasing contracts in line with ESA 2010 definitions should be considered within the scope of ITGS.</td>
<td>Change of economic ownership</td>
<td>Services-Financial services, FISIM (if provided by a financial corporation, BPM6 paragraph 10.132), Primary income-Investment income Financial account- Loans</td>
</tr>
</tbody>
</table>

Source: Eurostat
9. COUNTRY CASES: AN OVERVIEW OF NATIONAL EXPERIENCE WITH STATISTICAL RECORDING OF SEA AND AIR TRANSPORT

9.1 Case study Belgium: Construction of mobile equipment

Manuals provide detailed guidance on the compilation rules for the exploitation of a vessel, but set out only few provisions regarding the construction of mobile equipment. The mobile equipment presented in this case study is mainly used for deconstruction of oil rigs platforms in international waters. A multinational enterprise (MNE) prepared the design and the construction was done in extra-EU country B from 2011–2014. In 2015, the equipment was delivered to EU-Member State C (MS C) for the completion of construction and testing. In 2016, the mobile equipment started its operations. The value of the completed ship equals to EUR 2 billion. It was registered as an asset in the annual accounts of MS A in 2016, before 2016 it was recorded as an ‘asset under construction’.

The ship is flying a flag of a third EU-Member State D. The primary data source for ITGS is the ‘flag’, but a correction was made, and the vessel was assigned to the economic territory of MS A.

Regarding the ownership structure, a physical private person resident in MS A owns the MNE with head office in extra-EU country E. The MNE is the 100% parent of the vessel contracting company, which arranges the crew, financing, etc. The vessel owner (SPV) is resident in MS A and takes all risks and receives all rewards in its accounts.

Before MS A started its investigation, only intra-company loans for the financing of the vessel between MNE and vessel contracting company (100% subsidiary of the MNE) were registered under FDI debt instruments, UCP out of EU. The vessel contracting company is responsible for the operations of the ship (management). The legal owner of the ship is a brass plate company: SPV and vessel contracting company are resident in MS A.

The FDI debt instruments were already recorded, missing was the second leg of the transaction (FDI equity): for this a correction was made. On a net basis, the FDI item was balanced for the construction stage. After the construction stage, the second leg was the vessel import. MS A assigns the economic ownership to the vessel owner (branch), as cost and turnover have occurred since 2016. During the construction stage 2011–2014, FDI equity was registered at the rate of the construction of the ship. Since 2014Q4 flows were registered reflecting the value of the ship (EUR 500 million), until its construction was completed in extra-EU country B. Before 2016 it was registered as an asset under construction. At the time the vessel was finished in a MS C, 2015Q1–2015Q4, EUR 1.5 billion was added to impute the value of the finished vessel. In 2016Q3 the vessel was imported (EUR 2 billion) and recorded in ITGS. The notional branch was dissolved. As the entity was not a direct reporter,
services exports were imputed from 2016Q3 onwards, when the vessel started its operations. Regarding IIP, a similar approach was taken. In 2014Q4, a notional branch resident in extra-EU country B was set up (stocks FDI equity increased by EUR 500 million). When the vessel was delivered from country B to MS C, other changes in volume were recorded and the branch was dissolved. The value was attributed to MS C and subsequently increased to EUR 2 billion. In 2016, when MS A imported the vessel, FDI equity stocks were decreased to zero. As the vessel was not registered in the shipping register, an import of the vessel was imputed to ITGS (EUR 2 billion). The other countries involved have neither recorded any transaction in its accounting frameworks nor registered the vessel.

**Figure 25: Stages of construction of mobile equipment**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Country</th>
<th>Value end of period</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2014</td>
<td>Construction phase in extra-EU country B</td>
<td>Notional branch</td>
<td>EUR 500 million</td>
</tr>
<tr>
<td>2015</td>
<td>Completion of construction and testing MS C</td>
<td>Notional branch</td>
<td>EUR 2,000 million</td>
</tr>
<tr>
<td>2016</td>
<td>Start of operations</td>
<td>Notional branch</td>
<td>EUR 2,000 million</td>
</tr>
</tbody>
</table>

*Source: National Bank of Belgium*
9.2 Country case Denmark: Vessels and aircraft registered in foreign register as extra data source for international trade in goods statistics

9.2.1 Introduction

From 2016 a new database to capture the Danish vessels and aircraft registered in foreign registers is included as a data source in the compilation of international trade in goods statistics (ITGS), in addition to the traditional data source of the Danish International Register. In this case study we present the Danish compilation system for the international trade in vessels and aircraft: data collection methods, updates of databases, and challenges.

The Danish shipping industry is a dynamic sector in the Danish economy. Exports from shipping accounts for approximately 16% of total exports in the last years. In 2018, exports from shipping represent 42% of the total Danish exports of services, and this share has increased to 44% in the first half of 2019. This consolidates shipping as the largest service export industry in Denmark.

Between 2012 and 2015 exports from the Danish shipping industry were at a stable level at approximately DKK 200 billion. However, in 2016 shipping exports decreased to DKK 167 billion. This trend was turned around in 2017, thus exports from the Danish shipping industry increased to DKK 189 billion. In 2018 this level was maintained.

Figure 26: Sea transport services exports in DKK billion

Source: Statistics Denmark

Denmark is number 7 in the world rank over maritime nations measured by operated gross tonnage (GT). Operated tonnage indicates how much tonnage is commercially controlled from the country. The list is quite different from the list of flag states, as a vessels can often be controlled from one country, while flying the flag of another. By the end of 2018, GT 61 million are commercially operated from Denmark. The activity level remains high despite the adverse conditions in the market in 2018, with currency fluctuations, trade war and unstable freight rates.
The Danish fleet is growing fast. The last analysis conducted by Danish Shipping association (which represent the Danish shipping industry, https://www.danishshipping.dk/) shows that between April 2017 and April 2018 the Danish flagged merchant fleet has grown by 25%. This corresponds to a growth in gross tonnage by GT 3.8 million in just one year. The abolishment of the Danish ship registration fee and the launch of the Danish government’s plan for growth in the maritime sector are partly responsible for this evolution, which continues in 2018, where the Danish ship register was the fastest growing ship register in terms of gross tonnage in the world. The Danish flagged vessels fleet grew from GT 16.2 million to GT 20.5 million in 2018.

Source: Statistics Denmark

There are 703 ships registered in the Danish ship register. But the number of Danish controlled vessels is larger than what the Danish shipping register shows. The Danish Shipping Association calculates that Denmark’s share of the world merchant fleet is about 1965 vessels (data source is IHS Markit). Measured in gross tonnage, the container segment accounts for the largest part of the fleet, followed...
by tankers. All this underlines Denmark’s position as a strong and attractive shipping nation and as a global maritime power hub.

**Figure 29: Number of Danish controlled vessels**

![Diagram showing the number of Danish controlled vessels by type of vessel](image)

**Source:** Statistics Denmark

Control involves different types of economic relations, and it does not mean that the vessel is owned by a Danish company and considered a Danish asset. But the difference between the number of Danish controlled vessels and the number of ships registered in the Danish Ship register can indicate that part of those vessels are Danish assets registered in foreign registers.

A similar comparison was done in 2016, where it was concluded that the possibility of Danish vessels registered in foreign registers should be investigated as a complementary data source for the International trade in goods statistics.

Accordingly, with this observation, the objective of this Danish case study is to present the introduction of a new data source in the compilation of international trade in vessels and aircraft to capture the Danish-owned vessels and aircraft in foreign registers.

This paper is organized as follows: Chapter 9.2.2 presents the compilation system for international trade in vessels; Chapter 9.2.5 describes briefly the system for aircraft; Chapter 9.2.6. concludes and discuss the challenges in the compilation.

### 9.2.2 Compilation system for the international trade in vessels

In 2010 the new EU-regulation introduced ‘economic ownership’ as the definition criterion for change in ownership in vessels and aircraft. That had implications for the compilation of foreign trade. With the economic ownership criterion, it follows that vessels and aircraft do not need to be registered in Danish registers in order to be included in Danish foreign trade statistics. They just have to be owned by Danish companies even if kept in foreign registers.

With regards to ships in foreign registers controlled by Danish companies, the basis assumption was that the Danish companies primarily had their vessels in foreign registers through subsidiaries, which is why these would be excluded from Danish trade statistics. This was the experience we learned from studies about Danish ships in foreign registers carried out in 2004–2006. The data collection was therefore designed so that the Danish registers were, as a starting point, the primary data source for Danish foreign trade in vessels.

In May 2015 data from the Danish Shipping Association was used to estimate the amount of Danish-
owned vessels in foreign registers. The Danish Shipping Association confirmed that there were 678 ships flagged in Denmark, a figure that corresponded to Statistics Denmark’s data from the Danish register. In the same publication the Danish Shipping Association calculated that Denmark’s share of the world merchant feet was 1,298 vessels. That number covers various ships, some of which would not be included in the statistics, but a fraction of that number are Danish assets and should be taken into account when compiling Danish trade statistics.

That led us to introduce a new data source. Accordingly, from 2016 the compilation system for vessels is based on two different data sources: the ‘traditional’ data source based on the Danish International register of shipping and a new data source to capture the Danish-owned vessels registered in foreign registers.

9.2.3 The ‘traditional’ data source: the Danish International Register

Under the Danish Maritime Authority, the Danish International Register of Shipping (DIS) includes Danish merchant ships with a minimum gross tonnage of 20 and not in use commercially for fishing or boulder fishing (https://www.dma.dk/Sider/default.aspx#). In some cases, vessels owned by foreign companies can be registered in DIS. For example, a ship owned by a foreigner can be admitted to DIS if the foreign company is controlled by a Danish shipping company or if the ship is operated from Denmark.

For the compilation of international trade statistics, changes in DIS are monitored every month. The changes in the flagging in the corresponding month are an indication of a possible transaction: a flagging in can be due to purchase of the vessel (and a potential import) and a flagging out can reflect a sale of the vessel (and a potential export). Flagging is only an indication because we have to rule out the possibility of the vessel merely changing register without changing ownership. The company registered as owner of the vessel is contacted and kindly asked to upload a questionnaire for external trade in vessels, where information about the specific vessel and the transactions is requested. In case of leases, additional information is also required, which is important to identify financial and operational leases. As the handbook already analyzes in Chapter 5, identifying the type of leasing is crucial in order to evaluate if there exists a change in ownership of the vessel.
Table 22: Questionnaire in DIS

**Questionnaire in DIS**

Upload the questionnaire to the following page: www.dst.dk/usf

**QUESTIONNAIRE for External trade in Vessels, the Danish ship register**

<table>
<thead>
<tr>
<th>VAT-number:</th>
<th>Identification number</th>
</tr>
</thead>
</table>

Company Name

**Statistics Denmark**

**External trade in Vessels and Aircrafts**

Akt. Nr:

*Kindly upload this questionnaire*

**#1: OUR INFORMATION ABOUT THE TRADE AND THE VESSEL**

**KINDLY FILL IN ALL REQUIRED INFORMATION**

1. Month of transaction
2. Import/Export
3. Transaction code
4. Vessel name
5. Call Sign / IMO
6. Year of built
   - Unknown - kindly fill in the cell to the right
7. Value
   - Unknown - kindly fill in the cell to the right
8. BT
9. Partner country
   - Unknown - kindly fill in the cell to the right
10. Ownership Share (%)
    - Unknown - kindly fill in the cell to the right

**SALE LEASE-BACK (SLB):**

11. Is this transaction part of a sale-lease-back?
12. Is the lease back an operational or financial lease?
13. Is this transaction the sale or the return as a lease?
14. Date of connected transaction

**#2: SUPPLEMENTARY QUESTIONS IF THE VESSEL IS LEASED**

15. Kindly enter the leasing company name
16. Kindly enter the leesee company name
17. Kindly enter the term of the lease agreement (months)
18. Is it a financial or operational lease agreement?
19. Does the company follow the IFRS 16 standards?
20. Is the company responsible for the repairation and the maintenance of the vessel?
21. Has the company the option/obligation to purchase the vessel at the end of the lease period?

**Source:** The Danish International Ship register
9.2.4 New data source to capture Danish-owned vessels registered in foreign registers (DFR)

As mentioned before, this data source was introduced in 2016. The database includes a population of Danish companies and information about their vessels registered in foreign registers. This database is updated monthly, with the information provided by the companies in the population, and annually, with the information of new companies (and their vessels) added to the population.

The companies in the database DFR are kindly asked to upload a questionnaire for external trade in vessels. The questionnaire covers the same questions previously shown for the transactions in vessels registered in DIS (Table 22: Questionnaire in DIS). The report is sent to Statistics Denmark on monthly basis with all the information on all transaction in vessels registered in foreign registers in the given month. If there is no transactions in vessels for a given month, the company is requested to send the questionnaire filled with zeros.

For the annual update of the population of DFR some new companies are chosen. The procedure for update of the population of DFR includes a selection of the new companies based on their stock of vessels in foreign registers. The identification of companies and the size of the stock of vessels requires an extra source. We used the commercial database IHS Markit (https://ihsmarkit.com/index.html) for that purpose. IHS database covers information about ship’s characteristics, movements, owners and managers, maritime companies, etc. Data can be extracted with the help of variables/characteristics.

To identify possible candidates different variables from the IHS database are used. The idea is to have a list of Danish companies ranked by the number of vessels owned and a list of fleets organized by the value of their vessels. The information of those two lists is combined with register data and accounting data to define the set of possible candidates to be included in the population. From that list we choose the new 2-4 largest companies in terms of number and value of their vessels registered in foreign registers.

The new population for year t is based on the population for year t -1 with the addition of the 2–4 new companies. In 2018 there were 15 Danish companies in the population with their vessels in foreign registers. For 2019 two companies are planned to be included in this database.

9.2.5 Danish compilation system for the international trade in aircraft

In the case of aircraft, the Danish international trade is based on two data sources:

- The Danish register: every month the register is checked for new aircraft and helicopters. The registered owners of those aircraft are kindly asked to submit information about the aircraft and the transactions. The questionnaire is similar to the one used in the vessels register in DIS.

- Foreign registers: it is in use from 2016. There are four companies chosen because of the size and number of aircraft. This is typical companies leasing aircraft on operational basis. These companies are requested to report information about the aircraft and transactions on quarterly basis. As in DFR, if the companies do not have any transaction with aircraft in a given quarter, they upload the questionnaire filled with zeros. There is not a regular procedure to update the database with new companies. When a new company with a significant amount of aircraft registered in a foreign register is found, it is included in the population.

For Scandinavian Airlines (SAS) cooperation with Statistics Sweden and Statistics Norway ensure that direct information from SAS headquarters about transactions are sent on a monthly basis.

9.2.6 Challenges when compiling international trade with vessels and aircraft

The use of the database covering Danish-owned vessels and aircraft registered in foreign registers has improved the coverage of international trade in goods statistics (ITGS), but it can generate some transitional challenges. As the production of vessels is negligible in Denmark, the update of the population for the DFR database can give revisions in imports continuously, changes in the stock of vessels and revisions in National Accounts. This transitional challenge is decreasing in time, as the coverage of DFR database increases also in time.
In general terms, one of the challenges in the compilation appears with the so-called ‘sale-lease-back’ operations, which are typical for vessels and aircraft. For those type of operations it is important to identify the type of lease, the connected transactions and the length of the period between them. The analysis of the nature of the economic transaction is important in those cases where there are changes in the value of the vessel.

Regarding the new accounting rules IFRS 16, we observe that companies have no problems identifying the type of lease when they report data for ITGS compilation. As mention before, IFRS 16 have implication for the way companies record leasing contracts in their income and balance account, as there is no difference between financial and operation leasing in this respect for the lessee. Therefore compilers cannot use companies’ balance to identify the type of leasing when determining if there is a change in ownership of vessel/aircraft.

In Denmark the use of IFRS 16 is mandatory only for listed companies and government entities/companies. Non-listed financial corporations follow IFRS 16 approximately (i.e. follow standards set by national Financial Supervisory Authorities) and for other companies IFRS 16 is optional. Some of the companies with vessels and aircraft have already changed to IFRS 16 per 1st January 2019. Nevertheless, we observe that companies have no problems reporting the type of lease.

### 9.2.7 References

- Danish Shipping Facts and Figures, The Danish Shipping association, [https://www.danishshipping.dk/en/analysis/](https://www.danishshipping.dk/en/analysis/)
- The Danish International Register of Shipping, [https://www.dma.dk/SynRegistrering/SkibsregistreringAfgifter/DIS/Sider/default.aspx](https://www.dma.dk/SynRegistrering/SkibsregistreringAfgifter/DIS/Sider/default.aspx)
- IHS Markit, [https://ihsmarkit.com/index.html](https://ihsmarkit.com/index.html)
9.3 Case study Ireland: Impact of the Aircraft Leasing Industry on Ireland’s Statistics

9.3.1 Abstract

In this text we give an overview of the aircraft leasing industry in Ireland, we explain the Central Statistics Office’s (CSO) statistical treatment of leased aircraft based on the principle of economic ownership, and we analyse the impact of aircraft leasing on Ireland’s economic statistics. We also describe our data sources and collection methods.

9.3.2 Overview of the Aircraft Leasing Industry in Ireland

Since the establishment of one of the world’s first aircraft leasing companies in the 1970’s Ireland has become a significant global hub for the aircraft leasing industry. There are currently more than 50 aircraft lessors operating in Ireland, including many of the world’s largest aircraft leasing companies.

The International Registry of Mobile Assets has approximately 36,000 aircraft with registered interest, around 24,000 of these are commercial aircraft in service and roughly half of these are leased aircraft. Industry estimates suggest that a majority of these are owned or managed by Irish aircraft leasing companies (ALCs).

The industry is a significant contributor to the Irish economy, and impacts various economic indicators, such as: International trade in goods and balance of payments imports and exports, changes to capital assets as recorded in capital formation, service income received from aircraft operators, income flows from financial leasing and interest on loans, the contribution of profits and wages to the national accounts and the taxes paid on those profits.

9.3.3 Principle of Economic Ownership for Trade in Aircraft

The balance of payments is a statistical statement summarising the transactions that occur between residents and non-residents during a given period. These transactions are recorded on a “change of economic ownership” basis, reflecting the transfer of the risks and rewards associated with ownership.

Generally International Trade in Goods statistics cover goods “which add to or subtract from the stock of material resources of a country by entering or leaving its economic territory”, that is reflecting the physical movement of the goods. However, for some specific goods, such as aircraft the rules are different. In line with BOP, trade in aircraft are reflected on a change of economic ownership basis.

The economic owner is defined as the natural or legal person who claims the benefits associated with the use of an aircraft, and therefore also accepts the risks. The transfer of economic ownership is usually clear when an aircraft is directly sold or purchased, but is less clear when it is leased.

In practise, for aircraft leasing companies, the economic owner can be determined by whether the lease is classified as “operational” or “financial” according to International Accounting Standards IAS17. If this information is not available there are various criteria to determine the economic owner of an aircraft.

In the case where an aircraft is leased to an airline on an operational lease the economic ownership rests with the ALC; the aircraft remains as a fixed asset on their balance sheet and the income received from the airline is recorded as operational leasing income.

However, in the case of a financial lease the economic ownership is transferred to the lessee, for example an airline, and the ALC no longer records the aircraft as a fixed asset on their balance sheet. In this example if the financial lease agreement was between an Irish ALC and a non-resident airline then this would be recorded as an aircraft export.

In many cases Irish ALCs purchase aircraft directly from the manufacturers, this is shown as an import of aircraft from the country of manufacture. In some cases, aircraft are purchased on a sale and lease back arrangement with an airline, in which case the partner country will be the country of residency of the airline. Aircraft may also be traded between ALCs, if both are Irish then no imports or exports are

32 Aircraft Leasing Ireland: https://www.aircraftleasingireland.ie.
33 Eurostat Compilers guide on European statistics on international trade in goods, Section 574.
In 2015 the CSO implemented the treatment of aircraft on an economic ownership basis. Given Ireland’s role as a global hub for the aircraft leasing industry throughout the past four decades, this change had substantial impacts on the trade, balance of payments and national accounts. In accordance with the adoption of the new treatment, the CSO issued corresponding revisions to the international merchandise trade statistics for each year in the period from 2000 to 2014, with the trade balance for 2012 being revised downwards by over EUR 5 billion (which was 2.5% of GDP in 2012).

The recognition of these aircraft assets triggered increases in imports and capital formation within the national accounts. The offsetting nature of these increases meant that the effect of the transition was largely GDP-neutral, although net measures of value added were affected through increased provision for aircraft-related depreciation.

9.3.4 Data Sources and Collection

In Ireland data on the aircraft leasing industry are collected through a combination of balance of payments (BOP) surveys, Intrastat survey data and customs declarations. For trade in aircraft other sources such as the Irish Aviation Authority (IAA) Register, the Companies Registration Office (CRO) and industry websites are used to identify new ALCs and supplement survey data. Revenue corporation tax returns are used to confirm profit data from the balance of payments surveys, however it should be noted that this information is only available after the financial year end. Data on employment and wages are available from employment survey data and administrative data from Revenue. The main data sources are described in more detail below.

Balance of Payments Quarterly Survey

The largest aircraft leasing companies are required to complete a detailed profit and loss (P&L) statement and full balance sheet on a quarterly basis as part of the BOP45 Survey. Smaller ALCs provide the same information but on an annual basis.

The structure of ALCs can be complex, in some cases each individual aircraft is set up as a separate designated activity company (DAC). This is often a requirement of the industry to ensure that any losses or liability are restricted to the aircraft in question. Therefore, to simplify BOP reporting, ALCs are encouraged to provide a consolidated return which covers all their Irish entities.

The P&L statement gives geographical breakdown of all services including operating lease income and payments, interest received and paid, and profits for the period in question. The balance sheet details the assets and liabilities of the company including equities, securities, bank deposits etc. Transactions and balance sheet positions, together with related investment income earned/payable, on an accruals basis, are reported along with valuation changes due to market price and exchange rate movements.

BOP data is also the main data source for determining the contribution to capital formation in national accounts, through reporting of fixed assets. Often the changes in fixed assets mirror the value of imports and exports of aircraft. However, there are cases where they differ, for example if an ALC moves its operations to Ireland from abroad the aircraft that they own are not counted as imports but as “other volume changes” in BOP.

Intrastat Survey and Customs Declarations

For Intra-EU acquisitions and disposals of aircraft traders are required to complete Intrastat surveys. However, companies are only required to complete customs declarations for aircraft which are physically imported or exported from a non-Member State. For extra-EU trade therefore, additional data sources are required to accurately capture change in economic ownership.

BOP quarterly data on fixed assets and the civil aviation register can be used to supplement normal trade data sources, however, neither of these are available within the timeframe needed for monthly trade statistics. Additionally, as the civil aviation register does not have information on ownership it can...
be a lengthy process to identify economic owner of a specific aircraft. To overcome these limitations and address a potential data gap, the CSO introduced a new monthly survey called the Aircraft Transaction Register (ATR) to fully capture both intra and extra-EU trade in aircraft.

**Aircraft Transaction Register (ATR)**

The ATR is a monthly BOP survey issued to the largest ALCs to collect the value, number and partner country for trade in aircraft on the basis of economic ownership. This data is used to measure extra-EU trade in aircraft, validate Intrastat data, and evaluate inter-company trading between Irish ALCs.

The ATR survey form was designed after meeting with several ALCs to determine what information they could readily provide, which would also meet our statistical needs. There was an initial pilot phase with feedback sought from the respondents involved. This co-operative approach has had a positive impact on the data collection process in terms of both data quality and compliance rates.

### 9.3.5 Results and Analysis

In 2018 the Central Statistics Office (CSO) released a publication on aircraft leasing in Ireland, some key results are shown in the following sections, with more detail available in the original publication. 38

**Aircraft Imports and Exports**

In 2018 imports of aircraft were valued at EUR 21.7 billion, which was 24% of the total value of imports, on an International Trade in Goods basis. In 2010 the value of imports was EUR 6.1 billion, which was just 7% of the total value of imports. Aircraft exports were EUR 4.7 billion in 2018, which was 3% of the total value of exports. For comparison aircraft exports were around EUR 750 million in 2010.

The trend in recent years has been that imports are significantly higher in value than exports. This is indicative of the business model of many of the larger ALCs whereby they purchase (import) new aircraft from manufacturers and then lease them out under operational leases. In contrast the sales (exports) tend to be older, lower value, aircraft.

Note that the data in Figure 30: Value of trade in aircraft and share of total trade from 2010 to 2018 covers all trade in aircraft, not just trade by ALCs. The values of imports and exports here are reported on an International Trade in Goods basis.

**Figure 30: Value of trade in aircraft and share of total trade from 2010 to 2018**

![Figure 30](https://example.com/figure30.png)

*Source: CSO Ireland*

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Operating Lease Income

Operational leasing constitutes the primary source of income for the population of surveyed Irish-resident aircraft leasing companies. This can be seen from the data in Figure 31: Operating income and total income for ALCs which shows the value of operating lease income and total income for ALCs over a 10-year period from 2007 to 2016. The difference between the two is made up of income from interest payments on financial leasing and other income sources.

It can be seen from these data that throughout the period from 2007 to 2016 financial leasing remained a relatively minor component of the total income for Irish ALCs. In this vein, it has been estimated that 7% of Irish-resident aircraft leasing companies were specialising in financial leasing in 2014.

Figure 31: Operating income and total income for ALCs

![Graph showing operating lease income and total income for ALCs from 2007 to 2016.](image)

Source: CSO Ireland

Figure 32: Geographical share of operational leasing income over 10-year period shows the geographical share of operational leasing income for Irish ALCs over a 10-year period. Europe and Asia were the largest operational-leasing markets for the population of surveyed Irish-resident ALCs, respectively contributing 40% and 38% of the total operating lease income over the reference period. Industry sources suggest that the proportion of lease income from Europe has been trending downwards, with the Asian proportion trending upwards.

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Country cases: an overview of national experience with statistical recording of sea and air transport

Figure 32: Geographical share of operational leasing income over 10-year period

Source: CSO Ireland

**Aircraft Leasing Profits**

There was a sustained pattern of growth in the figures for the total income, total expenditure and profits of ALCs over the period 2007 to 2016, as shown in Figure 33: Income, expenses and profit data for ALCs. During this period the turnover, or total income, more than doubled from EUR 6 billion in 2007 to over EUR 14 billion in 2016, while profits increased from EUR 1.7 billion to EUR 3 billion in the same period. The ratio of profit to turnover (or total income) ranged from 0.28 to 0.19 and averaged 0.22 for the 10 year period.

Figure 33: Income, expenses and profit data for ALCs

Source: CSO Ireland
Assets and Liabilities

The increases in income and expenses are backed by strong growth in the level of assets held by the respondent aircraft leasing firms as shown in Table 23: ALC Assets.

Table 23: ALC Assets in EUR million

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash &amp; Bank Deposits</td>
<td>555</td>
<td>418</td>
<td>521</td>
<td>290</td>
<td>446</td>
<td>1,445</td>
<td>1,899</td>
<td>3,193</td>
<td>4,691</td>
<td>4,887</td>
</tr>
<tr>
<td>Debtors</td>
<td>2,265</td>
<td>1,810</td>
<td>1,810</td>
<td>1,404</td>
<td>3,242</td>
<td>3,209</td>
<td>3,847</td>
<td>17,013</td>
<td>18,943</td>
<td>19,399</td>
</tr>
<tr>
<td>Loans</td>
<td>1,100</td>
<td>4,399</td>
<td>4,360</td>
<td>6,733</td>
<td>7,073</td>
<td>8,816</td>
<td>8,765</td>
<td>8,560</td>
<td>5,563</td>
<td>11,352</td>
</tr>
<tr>
<td>Tangible Fixed Assets</td>
<td>27,385</td>
<td>28,625</td>
<td>31,475</td>
<td>35,621</td>
<td>38,726</td>
<td>43,980</td>
<td>47,073</td>
<td>77,480</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Other</td>
<td>2,191</td>
<td>4,475</td>
<td>5,042</td>
<td>4,035</td>
<td>8,362</td>
<td>6,464</td>
<td>10,862</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

* Tangible Fixed Assets have been suppressed in 2015 and 2016 due to confidentiality.

Source: CSO Ireland

Tangible fixed assets constitute the bulk of the assets owned by the respondent firms, with the total figure also incorporating cash and bank deposits, securities and loans held and other assets. In particular, it is noted that the tangible fixed assets component jumped from EUR 47 billion in 2013 to EUR 77.5 billion in 2014, reflecting the potential of the industry to trigger capital formation changes in the national accounts.

Table 24: ALC Liabilities in EUR million

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds and Notes</td>
<td>2,399</td>
<td>2,408</td>
<td>2,201</td>
<td>3,953</td>
<td>3,451</td>
<td>3,231</td>
<td>3,410</td>
<td>3,753</td>
<td>4,134</td>
<td>5,300</td>
</tr>
<tr>
<td>Creditors</td>
<td>8,704</td>
<td>1,589</td>
<td>1,518</td>
<td>1,251</td>
<td>1,392</td>
<td>1,620</td>
<td>1,828</td>
<td>5,020</td>
<td>6,087</td>
<td>6,567</td>
</tr>
<tr>
<td>Equity Investments</td>
<td>13,588</td>
<td>14,071</td>
<td>14,951</td>
<td>16,435</td>
<td>16,406</td>
<td>16,843</td>
<td>18,335</td>
<td>29,059</td>
<td>34,601</td>
<td>40,571</td>
</tr>
<tr>
<td>Loans</td>
<td>12,920</td>
<td>17,750</td>
<td>17,882</td>
<td>19,244</td>
<td>22,862</td>
<td>28,723</td>
<td>33,681</td>
<td>75,696</td>
<td>71,943</td>
<td>81,287</td>
</tr>
<tr>
<td>Other</td>
<td>1,658</td>
<td>4,915</td>
<td>6,526</td>
<td>5,637</td>
<td>9,621</td>
<td>10,215</td>
<td>9,242</td>
<td>9,849</td>
<td>11,294</td>
<td>7,406</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>39,269</td>
<td>40,733</td>
<td>43,077</td>
<td>46,520</td>
<td>53,732</td>
<td>60,633</td>
<td>66,496</td>
<td>123,376</td>
<td>128,060</td>
<td>141,130</td>
</tr>
</tbody>
</table>

Source: CSO Ireland

Recent years have seen some large aircraft leasing companies arrive as new entrants into Ireland, with industry sources also reporting strong growth in the fleet of aircraft owned by Irish aircraft leasing firms over the period from 2012 to 2016. As can be seen in Table 24: ALC Liabilities loans constitute the largest component of the liabilities side of respondents’ balance sheets, with a step change between 2013 and 2014 from EUR 33.7 billion to EUR 75.7 billion mirroring the change in assets.

Employment and Wages

1,482 people were directly employed within aircraft leasing companies in 2016. A recent industry report has estimated that there are approximately 1,700 people directly employed within the Irish aircraft leasing sector, with almost 5,000 full-time equivalent jobs in Ireland being supported through the sector’s direct, indirect and induced effects.

In line with the expansion in income and assets the number of people employed and the total
renumeration within the surveyed Irish-resident aircraft leasing companies experienced strong growth
over the reference period. This can be seen in Figure 34: Employment and Wages, which shows the
changes in employment and pay over a ten-year period. This data also shows that the average salary
per employee has increased over time.

**Figure 34: Employment and Wages**

![Employment and Wages](image)

*Source: CSO Ireland*

### 9.3.6 Conclusions

This paper has demonstrated how significant Irish aircraft leasing companies are in the global market
with industry estimates suggesting that a quarter of all commercial aircraft in operation are owned by
Irish aircraft leasing companies. It also highlights their contribution to the Irish economy.

Irish ALCs had assets of over EUR 141 billion in 2016. Aircraft imports were almost EUR 22 billion in
2018, approximately a quarter of the total value of international trade in goods imports in that year. In
2016 operating lease income of EUR 12.6 billion was received from around the world, and the industry
recorded profits of EUR 3 billion in that year. The sector employed almost 1,500 people in 2016 with a
total wage bill of close to EUR 250 million, with further growth reported since then.

In 2015 the CSO adopted the new treatment of trade in aircraft on an economic ownership principal.
This led to large revisions to our trade balance at that time. The change to GDP was smaller due to
the offsetting of net imports and capital formation.

The main criteria that the CSO uses for determining the economic ownership of leased aircraft is the
type of lease, “operational” or “financial”. From Jan 2019 onwards under the new accounting standard
(IFRS16) lessees are obliged to report leased assets on their balance sheet as a “right-of-use” asset,
however lessor accounting will remain similar to current practice. Therefore, it is not expected that this
will have a significant impact on the collection or reporting of data on aircraft leasing in Ireland due to
the dominance of lessors.

The introduction of a new monthly survey, the Aircraft Transaction Register (ATR), was an important
statistical development in the CSO to meet the need for timely information on acquisitions and
disposals of aircraft by ALCs as these data are not always available through the traditional sources for
trade statistics.

The survey was designed with input from the industry to ensure that the respondents understood the
data requirements and would be able to provide the data in a timely fashion. The introduction of this
survey has had a positive effect on the data quality.
9.4 Case study Greece: Greek shipping estimation model

9.4.1 Background

The Greek Shipping Estimation Model aims to provide a coherent statistical framework to estimate balance of payments (BOP) items related to shipping activity, based on administrative sources and commercial databases.

Given the multi-territorial nature of the shipping sector and its complex group structures, the estimation of shipping activity is one of the most challenging tasks in terms of official statistics. This is of particular importance to Greece, whose merchant fleet plays a strategic role in the transport of commodities across the world. The statistical framework presented in this study may well be applied by other countries for balance of payments compilation purposes, as well as by researchers and analysts seeking to estimate revenues and expenses related to shipping activity.

The new approach enables a detailed calculation of receipts and expenses on a monthly basis, combining information from domestic administrative sources and global databases maintained by international agencies and recommended by international organisations, including the IMF, as reliable data providers. It was developed in collaboration with shipping experts from the academia and the industry, and was presented during the ECB and Eurostat mission to the Bank of Greece in November 2017, as part of the quality assurance of statistics underlying the Macroeconomic Imbalance Procedure (MIP), at meetings of Eurostat’s Balance of Payments Working Group (BOPWG) and at the meeting of Eurostat’s Task force on the recording and compilation of maritime transactions in national accounts and balance of payments in April 2018. Starting from the reference month of September 2018, Bank of Greece has been using the Greek Shipping Estimation Model for the compilation of balance of payments sea transport accounts (see Bank of Greece 2018).

The Greek Shipping Estimation Model adopts a granular-level approach, with vessel-by-vessel characterisation, involving three steps. Firstly, the cluster, the main counterparts and the types of balance of payments transactions that take place and can be estimated are defined. Secondly, the population is defined, including companies that are legal owners, operators or ship managers, and the vessels to be taken into account. Finally, all balance of payments transactions for a given vessel are estimated on a monthly basis.

9.4.2 The Greek Shipping Cluster

The first step is to define the structure of the shipping cluster. The structure presented in Figure 35: Standard ship management agreement and balance of payments transactions refers to a standard ship management agreement. This has been identified as the most common practice for the Greek shipping cluster, associated with shipping companies engaged in international carriage of goods by sea, but applies globally in the case of standard ship management agreements.

The structure of the cluster has been compiled by combining information from:

- detailed banking transaction data recorded in the balance of payments;
- contacts with relevant banks, shipping experts and companies;
- and commercial databases.

Given the complex structure of the shipping cluster, it is useful to first provide some explanation about the underlying mechanics of Figure 35: Standard ship management agreement and balance of payments transactions. The blue frame characterizes balance of payments transactions, i.e. transactions between residents and non-residents. The bold green arrows denote balance of payments receipts for the domestic (reporting) economy, whereas the bold red arrows denote balance of payments from the domestic to the rest of the world; transactions not crossing the blue borderline are not relevant for balance of payments statistics.
Typically, there is a ship management company (not depicted in the figure) which is legally registered abroad, with a branch/office whose main activities take place in country X. The branch performs the main activities with regard to the vessel’s operation and management, as also indicated by the ‘country of domicile’ of the commercial operator and/or the ship manager in the commercial databases (there are cases where the operator is different from the ship management company, but these are relatively few). Thus, in Figure 35: Standard ship management agreement and balance of payments transactions the local branch of the ship management company is denoted as the operator and the manager of the vessel.

Also, there is a fully legitimate ship owning company, often called registered owner, which is the legal owner of the vessel, most often registered abroad. It should be noted that the ship management company may manage several vessels, each belonging to a different legal owner (each ship owning company typically owns a single vessel for risk-exposure and liability purposes). It should also be noted that if the legal owner is incorporated under the law of country X, the respective transactions are modified by moving the box of the ship owning company inside country X.

Typical examples of standard ship management agreements are the BIMCO ‘SHIPMAN ’98’ and ‘SHIPMAN 2009’ agreements. Under the standard ship management agreement, freight revenues are received by the ship management company/operator, on behalf of the ship owner. The ship management company uses these freight revenues to pay the operating expenses of the vessel (i.e. crew costs, insurance costs, bunker costs, port expenses and other operational and non-operational costs). The rest of the freight earnings are directed to the legal owner, in the form of imports of sea transport services. The ship owning company pays management fees to the ship management company, purchases or sells the vessel and also receives the loan drawdowns and makes principal and interest repayments. Moreover, the ship owning company pays dividends to its shareholders. If a parent holding company exists, dividends are typically distributed by the parent company, after collecting the earnings from all the ship owning companies of the group.
The above setting is represented in the checklist that follows.

**Table 25: Checklist**

<table>
<thead>
<tr>
<th>Checklist</th>
<th>Legal owner</th>
<th>Ship-manager/operator (local branch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports of vessels</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Imports of vessels</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Freight earnings</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Repair/maintenance of vessels</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Bunker/fuel costs</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Port expenses &amp; other oper. costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance costs</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Crew wages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan receipts</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Loan instalments</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Bank of Greece*

Note: The above checklist was compiled based on historical bank transaction data recorded in the Greek balance of payments, after serially matching the transactors’ names with the ownership designation provided by the commercial databases; the results have been confirmed by contacts with associated banks, shipping experts and companies. The box ticking is indicative and could vary depending on the specific shipping structure.

The economic owner of the vessel (i.e. the asset, associated with imports/exports and the capital costs) is the legal owner. The ship management company acts for and on behalf of the ship owning company. However, apart from the provision of management services, the ship management company is responsible for the commercial operation of the vessel, i.e. the transport service, as well as for the commercial decisions concerning the employment of the ship.

The transactions reported in balance of payments of country X are:

- all the transactions between the legal owner and the operator/management company (management fees and net freight earnings);
- freight revenues from the clients to the operator/management company;
- all the management/operation related expenses to the companies abroad;
- loan and interest receipts and payments between the legal owner abroad and the domestic banks;
- paid dividends to the family of major stakeholders in country X.

### 9.4.3 Data Sources

**Introduction**

In order to define the population and estimate the relevant balance of payments items, we have used an exhaustive list of domestic and international databases, as well as additional valuable information from relevant maritime legislation, governmental sources and shipping experts from both the academia and the industry. The main data sources used are listed below.

**Main data sources used in the Greek Shipping Estimation Model**

- Greek Ministry of Shipping and Island Policy: list of the management companies established in the country, along with the vessels they manage.
- IHS Maritime and Trade: detailed monthly data (at vessel level) for various types of ownership,
vessel characteristics, new deliveries/deaths, sales, crew, etc.

- Lloyd’s List Intelligence: detailed monthly data (on a vessel basis) for various types of ownership, vessel characteristics, new deliveries/deaths, port movement (on 10-day intervals), speed, draft, etc.

- Clarksons Shipping Intelligence Network: detailed monthly time charter rate data by type of vessel (tanker, bulker, etc.), deadweight and year of build.

- Drewry: data regarding operating expenses by vessel type and year of build, manning, insurance, stores and spares, maintenance, administrative costs and management fees.

- World bunker prices: Bunker Index.

- Port expenses: pricing policy of major ports worldwide.

- Banking data (direct reporting): analysing correlations and trends among shipping-related balance of payments items.

It is noted that whenever a variable appears in more than one database, cross-validations are performed. The above are the main data sources used for the compilation of balance of payments items. For developing the Greek Shipping Estimation Model, various other databases were also consulted, including the Greek Shipping Directory, a traditional domestic database for Greek shipping; Bloomberg; Greek maritime law; BIMCO types of agreements; UNCTAD; ITF types of agreements; Petrofin Research; data collected from companies involved in the shipping sector; and other.

### 9.4.4 Definition of population

**Background**

The Greek Shipping Estimation Model is vessel-based, implying that for each vessel included in the registry, revenues and expenditures are calculated according to balance of payments requirements. Thus, one must select the vessels to be included in the registry, by applying the residency and economic ownership principles. For each vessel, there exist one or many linked companies, including the legal (registered) owner, the ship manager, the commercial operator, the beneficial owner and potentially the technical manager and/or the third party operator.

The relationships among the different players are very complex and their roles are not always easy to identify, having in mind that the definitions and terminology used in commercial databases are not always consistent with the statistical ones. In Table 26: Types of ownership as defined according to IHS Maritime & Trade and Lloyd’s Intelligence List are presented the different types of ownership as used in the Lloyd's Intelligence List and IHS Maritime & Trade databases.
The IHS Maritime & Trade uses three types of countries for each type of ownership, defined as:

- **Country of Registration:** The country in which the company or entity is legally incorporated.
- **Country of Domicile:** This is also known as Country of Residence and points to the country of location of that ownership, management or operating entity. This is the physical location of the company, i.e. where that company is located. 'Brass plate' companies will usually be shown as 'care of' the commercial manager and reflect the same Country of Domicile.
- **Country of Control:** The country where the controlling interest in the company is held. This may differ from the Country of Domicile.

Lloyd’s List Intelligence currently records the country of main operations/head offices and is more related to the country of domicile reported by IHS Maritime & Trade.

### Population of vessels to be included in Balance of Payments and economic ownership

According to balance of payments compilation manuals and guidelines (see Eurostat 2013, 2016 and IMF 2009, 2017) and given the Task force on the recording and compilation of maritime transactions consultation, in the majority of cases, the economic ownership can be identified on the basis of the transport agreement between the legal ship owner and the operator/ship manager. Three representative types of agreements have been identified: Time or Voyage Charter (Case A); Standard Bareboat Charter (Case B); and Standard Management Agreements (Case C). As already mentioned, the Standard Management Agreement (Case C) is the most common in the case of Greece.

In the cases of Time or Voyage Charter (Case A) and Standard Management Agreements (Case C), the legal ship owner is considered the economic owner of the vessel. The latter receives earnings from the economic activity (in the form of a daily fee in Case A, or net freight earnings in Case C), whereas the asset (vessel) and the liabilities are attributed to the legal ship owner. Moreover, in Case C the operator/management company acts for and on behalf of the legal ship owner.

In the case of Standard Bareboat Charter Agreements, the economic ownership can be transferred by the legal ship owner to the operator (charterer) of the vessel, depending on the terms and conditions of the agreement and on whether they fulfill the indicative criteria laid down in the compilation manuals.
In view of the above the population included in the registry relevant for the Greek Shipping Estimation Model is determined as follows:

**Cases for which gross revenues and expenditures related to shipping services are included in the Greek balance of payments:**

- Based on the list of management companies provided by the Ministry of Shipping, we identify the companies and their vessels which are listed in commercial databases as commercial operators, with Greece as the country of domicile (checking logical coherence between databases). We exclude cases in which the third party operator is located abroad.

**Cases for which economic ownership lies in Greece and import/exports of vessels (as well as shipping services) are included in balance of payments:**

- Identify ship owning companies and their vessels, with Greece as the country of registration of the legal owner. We exclude cases in which there is bareboat chartering abroad. We include cases in which there is bareboat chartering in Greece (these are rare in the Greek case).

Furthermore, from the calculation of revenues and expenditures related to shipping services we exclude vessels that are either dead or new constructions, as well as vessels more than 30 years old, and/or for which no port movement has been recorded from 2000 onwards. It is noted that vessels which in commercial databases are marked by a status of ‘converting/rebuilding’, ‘laid up’, ‘in casualty or repairing’ remain in the registry, since there are specific types of monthly expenses related to them. The vessels’ registry is updated on a monthly basis by incorporating new information from commercial databases.

### 9.4.5 Estimation of Balance of Payments Items

Given the population of vessels included in the shipping registry, the next step is to calculate revenues and expenditures by vessel, coded by balance of payments item and counterpart country. The complete list of balance of payments items to estimate includes:

**Vessel’s revenues:**

- Freight revenues

**Vessel’s voyage expenses:**

- Bunkers/fuel cost
- Port Expenses

**Vessel’s operating expenses:**

- Manning costs
- Vessel Insurance costs
- Maintenance and dry docking costs
- Stores, spares and lubricant oils costs
- Flag state expenses and tonnage tax
- Administrative costs

**Transactions between Commercial Operator and Legal owner:**

- Management fees
- Net freight earnings

**Other balance of payments items to estimate:**

- Imports/exports of vessels
- Loan and interest payments and receipts
- Dividends

**Vessel’s revenues**

The estimation of shipping services revenues (exports of services) for each vessel involves four steps. As a first step, we identify whether the vessel is hired; if yes, as a second step, we estimate the
Step 1: Identify based on the commercial databases if the vessel is hired:

Since there is no direct information about whether a vessel is hired, this can be indirectly inferred from its draft. A draft above 20-30% of its max depth suggests that the vessel holds cargo. Besides the draft, if there is port movement and a few days later the vessel holds cargo, then it can also be assumed that it was hired. This rule appears satisfactory because it delivers utilization rates very close to the ones encountered in the shipping industry (i.e. in the annual reports of shipping companies).

Equation 1: Port Movement Draft = the vessel is hired

A simpler approximation, which seems to work reasonably well in terms of average utilization rates, is to observe the draft data 3 times a month (i.e. every 10 days); note that from the commercial databases we draw movement data on the 10th, 20th and at the last date of each month. If at least one of the three observations shows increased draft, then it can be assumed that the vessel was hired in the reference month. Also, if there is port movement and the vessel is not laid up or under repair, it can be assumed that the vessel was hired; it is noted that draft is not applicable for certain types of vessels (i.e. passenger ships, tugs).

Step 2: Estimate expected revenues for each vessel hired:

For each vessel hired, we calculate expected revenues by vessel type and size (deadweight/TEU) using the respective monthly Clarkson’s time charter rate. Since rates are provided for specific deadweights/TEU, we use linear percentage differences between two adjacent deadweight/TEU categories to calculate each vessel’s revenues, based on the observed exact vessel’s deadweight/TEU provided by commercial databases. Moreover, Clarkson’s rates are provided in US dollars per day. Thus, these rates are multiplied by the number of days of each month to approximate the monthly revenues of the vessel.

Step 3: Allocate the revenues to the respective BPM6 code

The revenues calculated above are allocated to one of the following categories: (a) passenger sea transport; (b) freight sea transport; (c) sea transport among third countries (cross trading); and (d) other sea transport services.

The allocation to the respective category is based on the vessel type as well as the last port visited. In more detail, ROPAX vessels’ revenues are recorded under ‘passenger sea transport’; tug and platform supply vessels’ revenues are attributed to ‘other sea transport services’; and, as for the remaining types of vessels (tankers, bulkers, container ships, PCTC, roll-on/roll-off, LNG and LPG carriers), if a Greek port is indicated as visited on any of the three dates on which movement is observed, their revenues are attributed to ‘freight sea transport’, otherwise they are attributed to ‘sea transport among third countries’. ROPAX vessels moving exclusively between national ports are not included in the ‘passenger sea transport’ item, as their revenues from non-resident passengers are recorded in travel services.

Step 4: Allocate revenues to the respective counterpart countries

The counterpart country is set to be the country of the last port visited, as provided by commercial databases three times a month (at 10th, 20th and the end of each month). Then, for the specific 10-day interval the revenues are attributed to the country of the respective port. The reasoning is that the client of the shipping company who receives the cargo is most probably resident in the country where the port is located. Although this might not always be accurate, it is the best possible proxy on the basis of available information and in line with statistical guidelines.

Bunkers cost

To calculate bunker costs, the fuel consumption of each vessel is first calculated and then world bunker prices are used to approximate actual bunker expenses. Next, the latter are allocated to counterpart countries on the basis of the last port visited.

Commercial databases provide for each vessel the typical fuel consumption (in tonnes per day) at a given (cruising) speed. However, it is common practice for vessels to travel at reduced speeds, for fuel
economy purposes. Thus, we must also take into account the actual observed speed at a 10-day interval.

There is a well-known theoretical formula, that links fuel consumption with the third power of speed (see e.g. Ronen, 2011). Given the consumption at speed , fuel consumption at speed is equal to:

Equation 2: \[ F_i = F_0 \left(\frac{V_i}{V_0}\right)^3 \]

which can be directly calculated on basis of the variables that are available by the commercial databases, as described above.

Having calculated the actual fuel consumption (in tons per day) by vessel, we rely on world bunker indices to calculate the monthly fuel costs. We use:

- Bunker Index for all commercial vessels except LNG;
- Global LNG Prices for LNG.

Bunker expenses are then allocated by country on basis of the ports visited.

**Port Expenses**

To calculate port expenses, first we rely on commercial databases to identify the ports and canals worldwide which are most often visited by vessels included in the registry. Then, we find the pricing policies of these ports, which are publicly available (usually on their websites). Main expenses include berthing (a fee when entering the port) and dockage (a fee while staying in the dock). These fees typically depend on gross/net tonnage or vessel’s length, and duration of stay. Duration of stay can be calculated either from commercial databases (on the basis of last arrival date and last sailed date by vessel) or using average time in port, as provided by the port itself. Related data are also available from UNCTAD (Review of Maritime Transport). In most cases, duration of stay averages 1-2 days.

As a final step, we examine whether a vessel has reached a port, on the basis of the last arrival date and the last port visited, available from commercial databases (observed every 10 days). If an arrival at a port is recorded at a given 10-day interval of the month, then the vessel is assumed to pay port expenses, as calculated above.

As regards ports for which we have not retrieved any detailed pricing data, we use instead the average costs paid by vessels of the same type and size in ports of the same country for which we do have the relevant information. If there are no available data on the pricing policy of any port in that country, we use the global average. Finally, port expenses are allocated to the country of the port visited.

**Manning costs**

In the first step, we attribute to each vessel the expected manning costs, depending on its type, deadweight and age. These data are drawn from Drewry and have been cross-checked with the International Transport Workers’ Federation ‘TCC’ collective agreements, as well as with data obtained from crew management companies, which seem to adequately capture the average manning costs for each type of vessel.

In the second step, we derive the distribution of nationalities and officers/ratings by vessel type and size, based on data from commercial databases. Commercial databases provide, for the majority of vessels, information about the total number of crew by nationality, as well as the number of officers and ratings. On the basis of these data, we calculate the distribution of ratings and officers by nationality and vessel type.

In the third step, we allocate the manning costs for each vessel to the respective nationality, weighted by the ratio of the rates received by officers to those received by the rest of the crew. Interestingly enough, the nationality of the crew seems to be related with the shipping segment in which the ship operates and therefore with the type of the vessel, as shipping companies tend to hire seafarers from countries with expertise in the operating field of the ship.

**Vessel insurance costs**

Drewry reports annual average insurance costs by vessel type, deadweight and age. Cross-checks are performed with results from the annual reports of listed companies. We associate the respective expected insurance cost with each vessel in the registry on the basis of its actual characteristics.
To allocate the insurance costs to counterpart countries, we use market information and historical bank data. In the Greek case, ITRE data show that the bulk of insurance costs abroad is traditionally attributed to the United Kingdom; other countries include Italy, Germany, Norway, the United States, and Switzerland.

**Maintenance and dry docking costs**

Repair and maintenance costs as well as dry-docking costs by vessel type, deadweight and age are collected from Drewry. If the status of the vessel in the commercial databases is ‘In Service/Commission’ or ‘Laid-Up’, we assign the respective maintenance costs to the specific vessel on the basis of its characteristics. If the status of the vessel is ‘In Casualty or Repairing’ or ‘Converting/Rebuilding’, we assign the respective dry-docking costs to that vessel.

The country allocation of repair costs is related to the port where dry-docking and maintenance take place, which is available at a 10-day interval.

**Stores, spares and lubricant oils costs**

Drewry also reports stores, spares and lubricants costs by vessel type, deadweight and age. We assign these costs to a vessel, provided its status is ‘In Service/Commission’. Most of these expenses are paid to suppliers and companies that have long-term general agreements with the operator. Due to lack of further information, we assign these costs to the country of domicile of the operator.

**Flag state expenses and tonnage tax**

Average flag state expenses by vessel type and deadweight are also reported by Drewry. We allocate the respective amount, which is calculated for each vessel on the basis of its characteristics, to counterpart countries, as indicated by the vessel’s flag.

In addition, vessels which are managed by a shipping company (or branch) located in Greece pay tonnage tax, whereas Greek-flagged vessels are required to pay tonnage tax to the country. This tax is allocated to all vessels for which, according to the databases, Greece is the commercial operator’s or bareboat charterer’s country of domicile, or the legal owner is registered in Greece, as well as to vessels flying the Greek flag. The allocation is based on gross tonnage.

**Administrative costs**

Drewry reports expected administrative costs by vessel type, deadweight and age, which are available from commercial databases for each vessel in the population. Administrative costs are divided into two categories.

The first category includes expenses incurred when the vessel is in service, such as costs for waste and garbage disposal, local transport, masters’ entertainment, etc. These expenses are attributed to the country of the last port visited. The second category includes administrative costs paid even when the vessel is not in service, such as classification fee, port service charges, communications, printing, IT and postage, vetting, internal auditing and inspection, training, etc. These expenses are attributed, on the basis of available information, to the country of domicile of the commercial operator.

**Management fees**

As depicted in Figure 21, management fees are paid by the legal owner to the commercial operator. Average annual management fees by type, size and age of vessel are reported by Drewry. Thus, on the basis of commercial databases, we find the counterpart country of registration of the legal owner that pays the corresponding management fees to the commercial operator.

**Net freight earnings**

Net freight earnings are paid by the commercial operator to the legal owner (Figure 21). We calculate net freight earnings by subtracting from total freight revenues all the vessel’s expenses that are paid by the commercial operator both inside and outside the country, i.e. manning, insurance, stores, spares and oils, maintenance and dry-docking costs, flag and tonnage tax, administrative expenses (excluding management fees, which are considered as revenues to the operator), bunker costs and port expenses.

Equation 3: Net freight earnings equals Freight revenues minus Vessel’s voyage and operating expenses
Then, on the basis of commercial databases, we identify the country of registration of the legal owner that receives the net freight earnings from the commercial operator. Net freight earnings enter the balance of payments as imports of sea transport services. Although not the typical case, net freight earnings can turn negative for specific vessels and dates. This is the case where the vessel’s expenses are higher than freight revenues for the specific time period and the operator asks for extra cash (cash call) from the ship owner. In this case, net freight earnings are inflows to the country and are considered as exports of sea transport services in the balance of payments.

**Imports and exports of vessels**

As analysed above, economic owner of the vessel is the legal owner in case of time/voyage chartering, as well as in the case of standard management agreement. A change in the economic ownership may occur in the case of bareboat chartering. Thus on basis of both administrative data and commercial databases one can identify the vessels bought/sold by resident legal owners. To these data are to be added cases of bareboat chartering by a domestic company (imports) or abroad (exports), which however is rare for the Greek case.

**Loan and interest payments and receipts**

Loan agreements are signed between the legal owner and the bank (domestic or foreign). Loans and related interest payments and receipts of domestic legal owners vis-a-vis non-resident banks, are collected on basis of the standard data collection system (Direct, ITRS etc.)

To calculate the loans and related interest payments and receipts of domestic banks vis-a-vis non-resident legal owners, we rely on balance sheet bank data. Moreover we survey domestic banks on the interest rate charged on shipping loans, their commitment fee and arrangement fee.

**Dividends**

Dividends are paid either by the legal owner (typically located abroad), or the holding company (if exists) to physical persons or other companies in Greece. Relevant balance of payments transactions are collected on basis of the standard data collection system (Direct, ITRS etc.)

9.4.6 Conclusion and way forward

We have developed a comprehensive framework for calculating all Balance of Payments (BOP) items related to shipping activity. The Greek Shipping Estimation Model is, to our knowledge, the first holistic methodological approach in the EU to estimate, on the basis of statistical modelling, all shipping-related balance of payments items, using commercial databases in combination with administrative data.

It is clear that in order to perform such a task, there were significant challenges to overcome, since a new methodological approach had to be developed, specific to each balance of payments item. Furthermore, in practical terms, combining information from many different and large databases required database subscriptions, advanced statistical programming and big data management. By way of illustration, detailed estimates by vessel have been produced for all vessels’ revenues and expenses (by balance of payments item) and by counterpart country. Moreover, a detailed transaction tool has been developed to convert these estimates into approximately 200,000 transactions per month, which then have to be recorded in the balance of payments.

The model needs to be continuously updated to keep up with changing shipping business conditions. Besides the fact that even commercial databases change their fields over time (i.e. new indices are published and others are discontinued, or new types of vessels emerge), mobility in the shipping industry is constantly growing. As a result of increased competition from Asian countries, coupled with the new environmental framework for the shipping sector and recent developments in world trade, many shipping companies (especially ship owning companies) close and new ones open even on a daily basis, purchases, sales and conversions/rebuilds of vessels (including new eco-friendly types) have increased, new routes have opened, and high volatility has been observed in freight rates and operating expenses.

The Greek Shipping Estimation Model can be readily applied by other EU Member States, as well as non-EU countries, to estimate some or all of the balance of payments items related to shipping activity. We believe that the current methodological framework can set new standards in official statistics, in terms of using statistical modelling to incorporate information from commercial databases as well as with regard to the treatment of off-shore companies when there is no available information on their
income and expenses. Hopefully, this study can form a basis for future research in shipping, in both the academia and the industry.

9.4.7 References


9.5 Case study Greece: Implementation of the concept of economic ownership in international trade in goods statistics for imports and exports of ships and aircraft

9.5.1 Background

In the framework of the requirements laid down in the EU Regulatory Framework, (Regulations 113/2010 and 96/2010) ELSTAT undertook certain actions, during the period 2016–2018 as to further enhance the implementation of the concept of economic ownership in international trade in goods statistics (ITGS) for imports and exports of ships and aircraft. More specifically the following actions have been undertaken.

9.5.2 Methodology for the enhanced implementation of the principle of economic ownership in imports and exports of ships

ELSTAT in collaboration with the Bank of Greece (BoG) has undertaken a thorough study with a view to implement the economic ownership principle in ITGS. In this framework a thorough study has been carried out by the two institutions in order to identify and describe the main features of the Greek shipping cluster along with the most common business model applied in Greece.

The Standard Management Agreement is firstly described in this handbook in Chapter 6.3.3 Case study standard ship management agreement and illustrated in Figure 21: Standard ship management agreement and balance of payments transactions reporting. It is secondly presented below in Figure 36: Case C – Presentation of the Greek shipping cluster and balance of payments transactions reporting.

The Standard Management Agreement has been identified as the most common case for Greece. In this case, the economic ownership of a ship is attributed to the legal owner’s country of registration. In case of bareboat chartering agreement, the economic ownership may be attributed, under certain conditions, to the bareboat charterer. However, this is extremely rare for the Greek shipping.

Moreover, ELSTAT acquired access to the data of the commercial data base IHS Markit. The latter along with data derived from Intrastat, Extrastat, and other administrative data sources as well as with data derived from national commercial data bases were used for the compilation of the imports and exports of vessels by taking into account the most common business model applied in the Greek shipping industry.

The results of this exercise have been presented in December 2018 by ELSTAT during the works of the Task force on the recording and compilation of maritime transactions in national accounts (NA) and balance of payments (BOP). The new revised data sets have been provided to both national accounts and Bank of Greece for proceeding in calculations for their purposes.

Standard ship management agreement

The structure presented in Figure 36: Case C – Presentation of the Greek shipping cluster and balance of payments transactions reporting refers to the case C of standard ship management agreement (Maritime Cluster Guidance for balance of payments Data Compilers, Recording of shipping activities in balance of payments, Task force on the recording and compilation of maritime transactions in national accounts and balance of payments of Eurostat, 2018). This has been identified as the most common scenario of the Greek shipping cluster.
Country cases: an overview of national experience with statistical recording of sea and air transport

Figure 36: Case C – Presentation of the Greek shipping cluster and balance of payments transactions reporting

According to case C, typically, there is a ship management company (not depicted in the graph) which is legally registered abroad, with a branch/office whose main activities take place in country X. The activity is attributed to the branch by aligning with the indication of country of domicile as it appears in the commercial databases (as suggested by BPM6 guidelines). The local branch of the ship management company performs acts of operation of the vessel (there are cases where the operator is different to the ship management company, but these are relatively few). Thus, in Figure 36 the local branch of the ship management company is denoted as the operator and the manager of the vessel. Also there is a fully legitimate ship owning company (SPC/SPV), which is the legal owner of the vessel, most often registered abroad. (The Greek Shipping Estimation Model – Methodological Note, Department of Statistics Bank of Greece, October 2018[42]).

The economic ownership of a ship, in case of ship management agreement between the ship owner and the managing company is attributed to the legal owner’s country of registration.

This is the most usual case in the Greek merchant shipping. In case of bareboat chartering agreement, the economic ownership may be attributed, under certain conditions, to the bareboat charterer, however this is extremely rare for the Greek shipping.

Substance of the transaction

In order to define the substance of the transaction, it is important to examine who ultimately receives the net freight earnings (after extracting vessels costs) and to examine who suffers loss from the operation of the vessel.

- Management Company

The ship management company acts for and on behalf of the ship owning company (SPC/SPV). The relationship between the legal owner and the management company are defined by an agreement, which is not a financial leasing or bareboat chartering agreement.

- Legal owner (SPC/SPV) located abroad

The ship management company uses freight revenues to pay the operating expenses of the vessel.

[42] https://www.bankofgreece.gr/BoGAttachments/METHODOLOGICAL_NOTE_THE_GREEK_SHIPPING_ESTIMATION_MODEL.PDF.
The rest of the freight earnings are directed to the legal owner (SPC/SPV).

- **Economic Owner**

In Standard Management Agreement, the legal ship owner (SPC/SPV) is considered as the economic owner of the vessel. The operator/management company acts for and on behalf of the legal ship owner. The legal ship owner receives earnings from the economic activity, whereas the asset (vessel) and the liabilities are attributed to the legal ship owner (SPC/SPV).

To this end, imports and exports of ships have been compiled using information from various sources. The estimates concern the years 2010 onwards as it is required by the relevant legal framework.

**Data sources and definitions**

The data sources used for the compilation of ITGS are described below:

- **International commercial database: IHS Markit**

  The International commercial database includes the IMO number of the ship and the name of the legal entity in English and does not include VAT registration number. The IHS Markit is the organization issuing the IMO number of the ships. Therefore, the information ‘Country of Registration’ can be considered as reliable.

  The main variables examined in the context of defining the economic ownership are the following:

  - Registered Owner (Country of registration, Country of control, Country of domicile);
  - Group beneficial Owner (Country of registration, Country of control, Country of domicile);
  - Ship manager (Country of registration, Country of control, Country of domicile);
  - Operator (Country of registration, Country of control, Country of domicile);

- **Instratat**: Declarations from Intra EU Trade

- **Extrastat**: Customs declarations for Extra EU Trade

- **National administrative data sources**:  
  - Hellenic maritime register from Ministry of Maritime;
  - Business Register;
  - Ship Management companies register;
  - Administrative documents from Port Authorities.

- **National commercial data base**

Main characteristics of the used data sources:

- The variable ‘register owner, country of registration Greece’ included in the IHS Markit data files is the criterion according to which a ship will be classified as an import or an export.

- The transmitted files from the IHS Markit database include data that are filtered based on the following criterion ‘for each month all fields containing country Greece have to be included in the transmitted file along with all relative variables per record’.

- Intrastat – Extrastat database includes all the required variables, such as VAT ID and the name of the legal entity in Greek or in English.

- The flag is not a criterion for the application of the concept of economic ownership on this model, it is only an indication.
Selected variables form IHS Markit

In the table below the main variables of IHS Markit that have been used during the new method implementation process, are presented. The following variables provided the basis of the work process.

Table 27: Selected variables from IHS Markit

<table>
<thead>
<tr>
<th>Fields</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRIMO Ship Number</td>
<td>Vessel Name in English format, as recorded by the vessels registration authority. To avoid problems with fonts and characters sets the name may use nearest equivalent English character.</td>
</tr>
<tr>
<td>Ship Name</td>
<td>Vessel Name in English format, as recorded by the vessels registration authority. To avoid problems with fonts and characters sets the name may use nearest equivalent English character.</td>
</tr>
<tr>
<td>Ship Status</td>
<td>Current ship status relating to a vessel Under Construction, In Service, Converting, Casualty or demolition status. History table is available and values are given in date order from earliest known status.</td>
</tr>
<tr>
<td>Ship Status Effective Date</td>
<td>Indicates the flag country for the registry under which the vessel operates. Vessels may appear in more than one registry (parallel registry) although only one may be active at any one time.</td>
</tr>
<tr>
<td>Flag Name</td>
<td>The company identified on the Charter Party Agreement who charters the ship on a bareboat or demise charter. In this the charterer assumes control over all operations, costs and responsibilities associated with the vessel for an agreed period of time. The charterer (or the charterer's parent) becomes or appoints the ship manager and may also have the right to sub-charter the vessel. It is increasingly common for ships to be in parallel registry during the period of a bareboat charter. In this case, the ship is transferred by the bareboat charterer to a new operational flag, while the ownership of the ship (Registered Owner) continues under the original Registry.</td>
</tr>
<tr>
<td>Bareboat Charter Company</td>
<td>The country where the controlling interest in the company is held. This may differ from the Country of Domicile.</td>
</tr>
<tr>
<td>Bareboat Charter Country of Control</td>
<td>The country where the controlling interest in the company is held. This may differ from the Country of Domicile.</td>
</tr>
<tr>
<td>Bareboat Charter Country of Domicile</td>
<td>This is also known as Country of Residence and points to the country of location of that ownership, management or operating entity. This is the physical location of the company, i.e. where that company is located. 'Brass plate' companies will usually be shown as 'care of' the commercial manager and reflect the same Country of Domicile.</td>
</tr>
<tr>
<td>Bareboat Charter Country of Registration</td>
<td>The country in which the company or entity is legally incorporated.</td>
</tr>
<tr>
<td>Contract Date</td>
<td>The date when vessel is a confirmed order.</td>
</tr>
<tr>
<td>Country of Breaking</td>
<td>Country where vessel is broken up.</td>
</tr>
<tr>
<td>Country of Build</td>
<td>Country of Build based on the first or only builder.</td>
</tr>
<tr>
<td>Country of Economic Benefit</td>
<td>Country of Economic Benefit - Country which is the main beneficiary for the earnings generated by the ship.</td>
</tr>
<tr>
<td>Date Breaking Commenced</td>
<td>Date of commencement of breaking or beaching. 8 byte field - Century. Year. Month and Date.</td>
</tr>
<tr>
<td>Deadweight</td>
<td>Deadweight (dwt) - The weight in tones (1000 kg) of cargo, stores, fuel, passengers and crew carried by the ship when loaded to her maximum summer Draught.</td>
</tr>
<tr>
<td>Death Date</td>
<td>This is the date recorded for when a vessel is no longer in active use.</td>
</tr>
</tbody>
</table>
Delivery Date | The date when vessel comes in service/commission.
DOC Company | Name of company on the Document of Compliance (DOC) certificate.
DOC Company Country of Domicile | The company responsible for implementing the Safety Management System, as required under the ISM Code.

Gross Tonnage | Country the DOC Company is physically located in.

9.5.3 Compilation process system

The data on imports and exports of ships were compiled with the use of data derive from IHS Markit database and data from national administrative databases in combination with Extrastat and Intrastat data.

Phase 1

The primary steps to prepare the ships database related to the transactions are the following:

- If the Intrastat - Extrastat database (VAT ID is always included) does not include the name of the legal entity, this information is retrieved from the Business Register.
- From the Intrastat – Extrastat database, the required codes on economic ownership are extracted, pursuant to Eurostat Compilers’ Guide on ITGS (2017), namely codes: 8901 10 10, 8901 20 10, 8901 90 10, 8902 00 10, 8903 91 10, 8903 92 10, 8903 90 10, 8904 00 10, 8904 00 91, 8905 10 10, 8905 20 00, 8905 90 10, 8906 10 00, 8906 90 10.
- Ships less than 100GT might not be included in the IHS Markit data files.
- Comparison between the VAT ID from Intrastat - Extrastat database and the VAT ID of the Registry of management companies, as transmitted by the Section of Shipping Statistics of ELSTAT, is elaborated in order to have more indications on these cases.
- Best possible comparison between the names from the IHS Markit data files and those from the Intrastat - Extrastat database.
Phase 2

The purpose is to identify the transactions concerning the following two tasks:

Task (a) Ships registered in Greece for which the legal owner’s country of registration is abroad must not be taken into account for the compilation of imports and exports.

Task (b) Ships not registered in Greece, for which the legal owner’s country of registration is Greece must be taken into account for the compilation of imports-exports.

Task (a)

In this task the following procedures are included:

- Each month, imports and exports of vessels, included in Intrastat - Extrastat database, are identified and compared at record level with the data included in IHS Markit data files.
- The key identifiers to trace the vessels in the IHS Markit data files that exist also in Intrastat - Extrastat database are: company’s name, date, type and value of the ship.
- The company’s name appearing in Intrastat – Extrastat database, may be found either in the ‘registered owner’ column or in the ‘ship manager’ column in the IHS Markit data files.
- In the IHS Markit data files the ‘delivery date’ for the new ships and the ‘sold date’ for used ship is provided.
- Respectively the value of the ship is given in the columns ‘new build price USD’ for the new ships and ‘sale price USD’ for the used ones.
- It can be a time difference between the dates recorded in the IHS Markit data files and in Extrastat - Intrastat database.
- For each vessel present in Intrastat – Extrastat database is retrieved the country of registration of the legal owner and/or the bareboat charterer from the IHS Markit data files.
- If the country of registration of the legal owner, and/or the country of registration of bareboat charterer, is abroad, then this transaction is excluded from imports or exports.
- The legal owner registration information is also verified with the administrative documents from the Greek Port Authorities.
- Records that are not excluded remain unchanged.

Task

In case of ships not registered in Greece, for which the legal owner’s country of registration is Greece, the following criterion is examined:

All vessels flying with a foreign flag with country of registration Greece are detected, according to the indication ‘country of registration: Greece’ in the variable ‘register owner/bareboat charterer’ as provided in IHS Markit data files. This is a rare case.

The ‘delivery date’ is taken into account for the new built and ‘sold date’ for the used ones in order to be registered as imports or exports.

Finally, the value of an import or export of a ship of that case is recorded based on the variable (New build Price) for new ships and Sale Price for the used ones.
9.6 Case study Italy: Main features of a business model of cruise shipping lines relevant for the Italian macro-economic accounts

9.6.1 Introduction

The Task force ‘on the recording and compilation of maritime transactions in national accounts and balance of payments’ originates as a follow-up of drafted Handbook ‘Maritime cluster – Guidance for balance of payments data compilers’, that deals with the complexity of the activities and transactions related to companies operating in the maritime cluster. The latter is defined as a group of interconnected companies that are involved in the provision of the maritime transport services(43). Consequently, the cruise sector apparently does not seem to belong to the cluster, as the cruise companies are not directly involved in transport services but in travelling services, according to the EBOPS(44) classification.

Nevertheless, it is trivially evident that the cruise sector shares many features with transport services: both activities use ships in the sea! The cruise sector has the typical characteristics of maritime economics, such as the management aspects of the ships, logistics, geographical aspects and transport economy, but it also belongs to the touristic industry. According to the shared characteristics of the sea transport companies and the cruise companies, it can be affirmed that they have many issues that may be faced and analyzed together, for example the economic ownership of vessels or the relationships among branches and their mother companies.

9.6.2 Historical background

The history of the cruise industry is quite short. It begins with the Peninsular and Oriental Steam Navigation Company (now P&O Cruises), founded in 1837, which offered the opportunity to use postal ships to Spain to transport people. In this period, the cruise shipping is a secondary activity linked to sea transport, supporting the idea that sea transport and cruise shipping share many characteristics.

The cruise sector begins to develop concretely in the second half of the 20th century. At that time due to technological improvements, air passenger transport started replacing sea passenger transport, allowing a considerable time-saving. Others factors that induced liner ship companies to redefine their business, transforming liner ships in cruise ships, were the reducing migratory flows to the Americas and the closure of the Suez Canal in 1956.

In the sixties and seventies, new ships designed exclusively for the cruise sector began to be built. The idea that the ship itself could become an holiday destination took hold. These were the years in which a real cruise industry was born: in 1966 the Norwegian Cruise Line was founded, in 1968 the Royal Caribbean and in1972 the Carnival Cruise Lines(45), which changed completely the business. Interpreting the new needs of the market, Carnival introduced the idea of a family trip that replaced the concept of luxury trip, so expanding the demand for cruise shipping. The first fun ships were built, equipped with all comforts and wide space for fun, such as swimming pools, discos, bars, lounges, casinos and theaters.

9.6.3 Business features

The cruise shipping sector is characterized by a high level of concentration, because of the big amount of investments required to develop the business, and of the economies of scale achievable that ensure a high level of profit. The efficiency in the production process and the reduction of costs have to match with the high level of differentiation, that the sector must guarantee to satisfy the demand.

Even if the sector is characterised by a high level of concentration, many companies and brands are involved in the market, in order to satisfy all clients, such as families, retirees, young people, the luxury segment, etc. Few groups own companies and brands.

(43) Service items: SC11 (Services: Sea transport; Passenger), SC12 (Services: Sea transport; Freight) and SC13 (Services: Sea transport; Other than passenger and freight).
(44) The EBOPS 2010 classification provides a breakdown of the balance of payments trade in services item (debit and credit) as defined in the BPM6, by types of services.
The concentration of the sector is highlighted by the fact that four groups own over then 80% of sleeping accommodations (see Figure 37); the groups are:

- Carnival Corporation & Plc, owner of Aida Cruises, Carnival Cruise Line, Costa Crociere, Cunard Line, Holland America Line, P&O Cruises UK, P&O Cruises Australia, Princess Cruises and Seabourn Cruise Line;
- Royal Caribbean Cruises Ltd, owner of Royal Caribbean International, Azamara Cruises, CDF Croisières de France, Celebrity Cruises and Pullmantur Group;
- Genting Hong Kong Ltd, owner of Star Cruises, Crystal Cruises, Dream Cruises, Norwegian Cruise Line, Oceania Cruises, Regent Seven Seas Cruises.
- MSC Cruises SA, the only company not listed.

**Figure 37: Market share in terms of sleeping accommodation**

![Market share in terms of sleeping accommodation](image)

**Source:** CLIA data 2017\(^{(46)}\)

The cruise shipping represents an important economic sector all over the world. The Table below shows the main variables that characterize the sector, broken-down by geographical area. It reports only the direct contribution generated by the cruise sector: expenditures of operators, passengers and crew, including wages, supplies and off-shore activities. It does not include the indirect and induced contribution\(^{(47)}\), that together with direct impact give the multiplier effect of the sector on the world economy.

\(^{(46)}\) CLIA: Cruise Lines International Association.

\(^{(47)}\) The indirect contribution depends on demand for goods and services generated by the directly impacted businesses. For example, food processors must purchase raw foodstuffs for processing; utility services to run equipment and process raw materials, transportation services to deliver finished products to the cruise lines. The spending of the employees of the cruise lines and their suppliers generates the induced contribution. The income of these employees is used to purchase broad range of goods and services (BREA, 2017, The Global Economic Contribution of Cruise Tourism 2017, for CLIA).
### Table 28: Direct cruise sector economic contribution – Global and regional markets 2017

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total</th>
<th>North America</th>
<th>Europe</th>
<th>Rest of the World</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output (USD billion)</td>
<td>61.02</td>
<td>28.75</td>
<td>21.34</td>
<td>10.93</td>
</tr>
<tr>
<td>Share of Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income (USD billion)</td>
<td>19.55</td>
<td>9.11</td>
<td>6.53</td>
<td>3.92</td>
</tr>
<tr>
<td>Share of Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>530 560</td>
<td>233 701</td>
<td>195 240</td>
<td>101 619</td>
</tr>
<tr>
<td>Share of Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Percentage change from 2016**

<table>
<thead>
<tr>
<th>Variables</th>
<th>2017</th>
<th>2016</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>5.3%</td>
<td>5.6%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Income</td>
<td>10.0%</td>
<td>8.2%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Employment</td>
<td>8.0%</td>
<td>8.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

**Source:** BREA, 2017, The Global Economic Contribution of Cruise Tourism 2017, for CLIA

The regional distribution of the direct economic contribution shows that North America accounted for 47% of the global direct contribution of the cruise industry in 2017. North America’s cruise line headquarters presence and the homeport operations for itineraries in the Caribbean represent a significant component of the direct economic contribution of the cruise industry (services). Europe accounted for 35% of global direct contribution to the cruise industry, but given the significance of the shipbuilding industry, the direct economic contribution is more relevant for the manufacturing rather than for services.

#### 9.6.4 Cruise industry in Italy

The cruise sector is very relevant for the Italian economy, in term of supply, demand and capital formation. In Italy is located Costa Crociere Spa that owns 26 cruise ships (2016 data) and is one of the main players in the European cruise market. Italy has a significant position also in term of demand: 11% (3rd place) of European Cruise passengers, 3% (7th place) of World cruise passengers are Italian (Sources: The Global Economic Contribution of Cruise Tourism 2017, BREA, for CLIA). Italy is characterized by an important ship building industry: 4 of the 14 ships delivered in the second half of 2019 are built by an Italian yard (Source: The Seatrade Cruise Orderbook, 2019).

#### 9.6.5 Costa Group

Costa Group case study\(^{(48)}\), presented here, is particularly relevant and interesting: it allows, at the same times, to describe the features of a company involved in the cruise sector with the typical characteristics of a Multinational Enterprise (MNE), and to analyze some issues regarding the maritime clusters, such as the economic ownership of mobile equipment and the definition, identification and description of a branch.

Costa Group operates in the cruise sector and the related leisure services; it belongs to Carnival Group that is, as mentioned above, the biggest group in the cruise sector. Two companies are at the top of the control chain of Carnival Group:

- Carnival Corporation, listed on the New York Stock Exchange;
- Carnival Plc, listed on the London Stock Exchange.

These two companies operate as if they are a single economic enterprise with a single management team and identical Boards of Directors, but each one has its separate legal identity.

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\(^{(48)}\) This part is based on the final report of the GNI Pilot Exercise on MNEs. I would like to thank all my colleagues of the Pilot Exercise team for their great effort and for sharing all available information.
Carnival Corporation’s global headquarters are located in Miami. UK headquarters are in Southampton, with regional offices in Australia, Germany and Italy. The Global Decision Center seems to be in the US(49).

Costa Group is a regional headquarter of Carnival Group located in Italy. The most important legal unit in Italy is Costa Crociere Spa, which is a sub-holding and consolidates others legal units; its parent is the British Carnival Plc. In Table 29: Costa Spa economic indicators are reported key indicators of Costa Spa that underline the importance of the enterprise in term of capitalization and revenues.

Table 29: Costa Spa economic indicators

<table>
<thead>
<tr>
<th>Costa Spa key indicators at 30 November 2016 (EUR million)</th>
<th>Balance sheet</th>
<th>Consolidated balance sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets</td>
<td>7 265</td>
<td>7 267</td>
</tr>
<tr>
<td>Fleet</td>
<td>6 870</td>
<td>6 870</td>
</tr>
<tr>
<td>Revenues</td>
<td>3 575</td>
<td>3 435</td>
</tr>
<tr>
<td>Difference between revenues and costs of production</td>
<td>618</td>
<td>629</td>
</tr>
</tbody>
</table>

Source: Public balance sheet

Costa group at November 2016 has 28,611 employees (2,675 on-shore, 25,936 on-board), while Costa Spa at November 2016 has 7,121 employees (1,968 on-shore, 5,153 on-board), that is a relevant part of the total employees of the Carnival groups (around 97,000).

Analyzing Costa Group in the contest of the GNI Pilot Exercise on MNEs, many interesting issues have arisen on the existence, definitions and implications on value added of branches abroad, and on the economic ownership of the enterprise’s fleet. The Pilot Exercise, thanks to the collaboration with the other European Union (EU) countries, established the presence (legal units or branches) of Costa Group in five countries: Nederlands, Spain, UK, Germany and Portugal. Although all the information collected are interesting to understand the complexity of the Group, this work focuses on the relationship between Costa Crociere Spa and Aida Cruises German Branch of Costa Crociere (Aida). The latter is one of the eight units identified in Germany.

Costa Crociere Spa, as mentioned above, is a sub-holding company incorporated in Italy, while Aida is a branch of Costa Crociere Spa unincorporated. To set the country in which the Aida Value Added is generated, it is crucial to establish the residence of the branch. The ESA 2010 states that a branch is recognized as a separate unit in the following cases: ‘either a complete set of accounts, including a balance sheet, exists for the branch; or it is possible and meaningful, from both an economic and legal viewpoint, to compile those accounts if required’. Considering the difficulties of fulfilling the requirement above, The ESA 2010 adds that to identify a branch as a separate unit one or more of some factors, such as the intent to undertake production on a significant scale or the presence of relevant number of employees, tend to be present.

Aida does not compile a balance sheet, but it has a significant presence in Germany in terms of employment and value added, and DESTATIS considers Aida as an institutional unit resident in Germany. These considerations lead to the observation that the presence of a double counting of Value Added could exist. In fact, Costa Crociere SpA value added, so far in both Italian structural business statistics (SBS) and national accounts (NA), is measured as equal to that of the entire enterprise (as from its annual income statements). Thus, the Italian data include also the value added generated by the enterprise’s branches: the double counting seems to amount to at least EUR 795 million. However, the German figures imply per capita value added for Aida substantially higher than the average for the entire enterprise: Costa Crociere Spa value added per capita is EUR 168,000, while Aida is EUR 966,000.

The double counting of value added can be overcome in different ways, depending on the hypothesis about the activity of the Aida branch:

- Aida Cruises German Branch of Costa Crociere SpA actually manages the Aida cruises. Therefore, the Value Added produced by these cruises is to be attributed to Germany, and employees of the branch should include both on shore and on board ones.

(49) Office for National Statistics (ONS) confirms the location of the Global Decision Center.
• Aida Cruises German Branch of Costa Crociere SpA only supplies on shore services to the Italian parent Costa Crociere SpA. In this case, Value Added of the German branch should not include the part generated by the Aida cruises; the German branch’s employees are only on shore ones.

• If we are unable to reach a shared position on Aida cruises, all the variables of interest, including Value Added, could be distributed among Italy and the countries where branches of Costa Crociere SpA are located, proportionally to the wages paid in each country, as suggested by the BPM6 paragraph 4.43, in case of multi-territory enterprises(50).

Costa Group is the legal owner of 26 ships (in 2016), which have Italian Flag. Costa Group(51) claims that the distinction between Costa Crociere and Aida brands depends on commercial and marketing issues: Costa Crociere is the brand of the Italian Style, while Aida is addressed to German speaking clients; thus, the economic ownership of the ships cannot be derived directly from the brand.

Conclusion on the economic ownership of the ships could be inferred from the different hypothesis, mentioned above, on the activity of Aida:

• Aida actually manages the Aida cruises: the economic ownership of ships should be attributed to Germany;

• Aida only supplies on shore services to the Italian part of Costa Crociere SpA: the economic owner of the 11 Aida ships is the Italian part of the enterprise;

• No shared position on the Aida cruises: the economic ownership could be distributed among Italy and the countries where branches of Costa Crociere SpA are located.

Otherwise, considering the relationship between a branch and its parent and the complexity of assigning the economic ownership of the mobile equipment, as underlined in the Handbook, it would be more effective to analyze further the structure of the enterprise. This should allow to understand which institutional unit is entitled to claim the benefits associated with the use of ships, accepting the associated risks. The analysis of an MNE structure, to assign the economic ownership of assets, requests a great effort in term of contact with the MNE and cooperation with other National Statistic Institute.

Finally, despite direct contacts with Costa Crociere SpA and very useful interactions with the German NSI colleagues, it has not been possible so far to rich a shared conclusion on the economic ownership of the ships branded ‘Aida’. The repeated direct contacts with Costa Crociere SpA, through which we have tried to understand the relation between headquarter and branches abroad, although useful, have not allowed us to reach a satisfactory understanding of the issues. In our opinion, this could be also due to the gap between the language used in business accounting and the national accounts concepts and definitions.

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(50) BPM6 paragraph 4.43: ‘In the case of a multiterritory enterprise, it is preferable that separate institutional units be identified for each economy […]. If that is not feasible because the operation is so seamless that separate accounts cannot be developed, it is necessary to prorate the total operations of the enterprise into the individual economic territories. The factor used for prorating should be based on available information that reflects the contributions to actual operations. For example, equity shares, equal splits, or splits based on operational factors such as tonnages or wages could be considered’.

9.7 Case study Italy: Statistical cooperation between ISTAT and the Bank of Italy on the compilation of statistics on sea transport

9.7.1 Introduction

This Chapter describes the Italian organization to compile statistics on the maritime cluster, which directly or indirectly covers a broad set of variables. The main pillar of this setting is the cooperation between ISTAT and Bank of Italy, which are the institutions involved in the production process.

After describing the collaboration between the two institutions to ensure consistency and exhaustiveness of the data, it will cover the estimation methodology for two aggregates: merchandise transport services and gross fixed capital formation in ships, respectively estimated by Bank of Italy and ISTAT.

9.7.2 Statistical cooperation between ISTAT and the Bank of Italy

The statistic aggregates related to maritime cluster are a complex set of variables, such as sea transport services, auxiliary services, external trade, or gross fixed capital formation (GFCF): all are useful to describe maritime cluster.

The aggregates are strictly connected among them and often analyzed as a whole; for example, GFCF estimate depends on different sources, like the external trade of goods. The responsibility of the two institutions are clearly defined and separate:

- Bank of Italy is responsible for international trade in services statistics (ITSS) and compiling the Balance of Payment of Italy;
- ISTAT is responsible for International Trade in Goods statistics (ITGS) and national accounts data.

Considering data relevant for the maritime cluster:

- Bank of Italy is responsible for sea transport services data, that is an aggregate of the Balance of Payments (the estimate of sea transport services will be broadly described after);
- ISTAT is responsible for external trade statistics in ships, gross fixed capital formation in ships, and rest of the world account (The estimate of GFCF will be discussed further; in addiction we will shortly describe ITGS because is a source for the estimate of GFCF).

Although responsibilities are well defined and separate between the two institutions, estimating processes of Bank of Italy and ISTAT are tightly interconnected. Focusing on trade account of the Balance of Payments and on External trade of National Accounts:

- Bank of Italy estimates on import and export of services (except for manufacturing services on physical inputs owned by others) are incorporated in ISTAT National Accounts (External Trade);
- Import and export of goods and manufacturing services on physical inputs owned by others (processing) estimated by ISTAT are incorporated in the Balance of Payments.

The interconnection of data requires a continuous exchange of data, scheduled in different deadlines (mainly quarterly and yearly).

Import (debit entry) and export (credit entry) of goods and services registered in the current account of balance of payments, and the external trade in goods and services in national accounts should coincide, according to the ESA 2010 and the BPM6. The above described organization allows to guarantee this consistency.

Coordination and the consistency are assured through:

- continuous exchanges of information;
- detailed timetable of data exchanges;
- permanent ISTAT-Bank of Italy committee.
9.7.3 Estimation of merchandise transport: Data sources and methodology

The merchandise transport item of the Italian Balance of Payments (BOP) is estimated using a two-step approach.

In the first step, total transport costs are computed by multiplying trade volumes, measured as tons of transported quantities, by freight rates, expressed as euro per ton. Trade volumes, which represent the demand for transport services, are derived from Foreign Trade Statistics (FTS), while freight rates, which account for the supply of transport services, are estimated by means of a sample survey.

In the second step, total transport costs are broken down according to carriers’ country of residence: in fact, transport costs are treated as balance of payments transactions when, generally speaking, the residence of the supplier of transport services is different from the residence of the importer, regardless of who pays for the service. Otherwise, they are supposed to be irrelevant in the balance of payments scheme.

The demand for transport services is substantially represented by imported and exported volumes. The base consists of the total quantities of goods imported and exported, derived from FTS, measured by ISTAT and broken down by the five main modes (ship, rail, road, air, and pipeline), country of counterpart, category of goods (NSTR classification) and direction of flow (credits, debits). Unfortunately, foreign trade statistics overestimate road transport – as enterprises often know only the first (or the last) leg of the transport chain, frequently the lorry – and consequently underestimate rail and sea transport. Such bias arises from the comparison with Italian and international transport databases. Accordingly, from the demand side of transport services, our methodology includes a revision of the modal distribution of foreign trade volumes using a number of industry-specific datasets (Italian and international) on merchandise transport, including Eurostat data on transport, statistics of the Ministry of Transport of neighbor countries (France, Switzerland, Austria), and data on imports, exports and international transit flows from the major Italian train company.

The assumption underlying the adjustment of the ISTAT matrix of trade flows is that the import and export totals, by quantities transported and by monetary value, are substantially accurate, save for small adjustments such as subtracting bunkerage (refueling), for which it does not make sense to calculate the cost of transport. Therefore, we adjust only the breakdown by mode of transport, without significantly affecting the breakdown by geographical area or product.

With regard to the supply side, Bank of Italy outsources to a private market research company a sample survey on transport companies operating in Italy, with the principal purpose of detecting the average unit costs of transport - broken down into pure and freight auxiliary services - according to the same breakdown used for the transport demand.

The sample consists of companies involved in transport and logistics on an international scale, stratified into eight categories according to their different characteristics. Transport enterprises are asked to report, for a specific ‘standard consignment’, both total freight rates and the incidence of the auxiliary services (i.e. handling, loading/unloading operations, agents’ commissions, etc.), in order to distinguish ‘pure freight’ costs from ‘supporting, auxiliary and other services’.

In practice, prices can be defined in weight units (metric tons) or in cargo units (vehicle or container), more rarely in volume or by number of individual items. Whatever the unit used, the prices are always converted to rates per metric ton for consistency with the data on foreign trade, which use that unit of measure (and by which they are multiplied to obtain the value of the service provided). Furthermore, a distinction is made between ‘pure’ freight rates and the other components, i.e. ancillary services (typically the loading and unloading of cargo) and agents’ and brokers’ fees.

The methodology also uses a multi-modal transport model developed by the research company conducting the surveys. The model is based on an input-output structure by region and represents inter-modality in a logical and flexible fashion. It starts from the origin-destination matrices of flows of goods and carries out modal splits. The model is focused on the European area and, consequently, on road and rail transport. It allows calculating distances and time ranges that are useful for the estimation of rail and road freight rates; in some cases, it helps integrating sample data.
The application of unit costs to transported quantities generates the overall cost of freight transport and auxiliary services. Its accounting in the balance of payments depends on the carrier’s nation of residence, which is estimated via supplementary and specific surveys on carriers’ market shares or using administrative data. In particular, sample surveys on market shares aim to estimate the market shares held by the resident in Italy for maritime and road transports, while administrative data are used to calculate the shares for air and train transports; moreover, the business of ship owners resident in Italy is estimated, particularly with reference to transport fully carried out abroad. Multiplying the overall cost of freight transport and auxiliary services by the market shares gives the estimates of merchandise transport services.

Figure 38: Different steps of the estimation process

Source: ISTAT

9.7.4 Estimate of freight rates

In order to estimate the transport supply side, since 1998 a sample survey is being conducted each year among transport enterprises, in order to gather information about average unit costs of international transport - broken down into pure and freight auxiliary services – according to the same breakdown used for the transport demand.

A sample survey is necessary because of the current lack of reliable and exhaustive international data. In fact, only in the case of sea transport, some international magazines regularly publish data about freight tariffs, generally in the form of price indexes.

Transport firms have to provide information about the operations they carry out more frequently, defined as ‘standard consignments’. The main aim is to achieve an estimate of the average unit cost of each possible ‘standard consignment’. A ‘standard consignment’ is defined according to the four variables that mainly affect freight rates:

- the type of merchandise (classified according to the NSTR classification);
- the mode of transport (four modes: air, sea, rail and road);
- the type of load: a) for sea: general cargo, container, liquid or solid bulk; b) for rail: bulk or container; c) for road: full or partial load; d) for air: 300 or 1000 kg.
- the distance (or the geographical areas of origin/destination).

In some cases other variables may be relevant, like the direction of flows when geographical areas are characterized by relevant unbalances of flows between export and import. The number of possible combinations of these variables is theoretically about several hundreds, but only a few of them are really important.

In order to get adequate information, transport enterprises are stratified into eight categories, according to their different characteristics and, consequently, based on the number of standard consignments.
they are able to describe. The eight groups are: 1) road transporters; 2) multimodal operators; 3) ship brokers; 4) ship companies specialized in containers; 5) rail companies; 6) intermodal rail and road companies; 7) air companies; 8) air brokers.

The enterprises selected within each group are extracted from lists published by transport associations and/or transport specialized publications, which also report rankings based on turnover or number of employees. A further stratification of these eight sample groups is based on other variables like the turnover of the carriers and their geographical allocation.

Sample size is defined as a function of the variability of the unit costs of transport. The findings of the surveys conducted in previous years are used to determine the (minimum) sample size for the number of questionnaires to be administered to individual companies (each type of shipment has its own questionnaire) as well as the minimum number of companies to be included.

A measure of the bias magnitude that non-sampling errors introduce in the final estimates is not currently available. However, non-sampling errors are kept under control thanks to several efforts made to limit their effect; for example, interviews are conducted face-to-face, interviewers are generally the same persons who design the questionnaires, missing answers to single questions are practically absent, enterprises refusing interview are substituted with other enterprises coming from the same sampling stratum, etcetera.

As for the frequency of the data collection, different standards are scheduled. For some modes of transport - air transport and, for sea transport, container and bulk (liquid and solid) - data are collected quarterly, due to a greater variability of freight rates. For the other transport modes – road, rail and, for sea transport, general cargo – a lower tariff variability allows conducting interviews only yearly.

Furthermore, the survey allows to estimate, in accordance with international standards, the impact of auxiliary services (i.e. handling, loading/unloading operations, agents’ commissions, etc.) on transport unit costs, in order to distinguish pure freight costs from ‘supporting, auxiliary and other services’. Transport enterprises are asked not only about total freight rates for a specific standard consignment, but also about the incidence of the auxiliary services, which varies according to transport modes.

9.7.5 Estimate of market shares

The estimate of the breakdown of trade volumes between Italian and foreign carriers is calculated for the various modes of transport using different sources: administrative ones for air and rail, and sample surveys for sea and road.

For maritime transport a double strata sample is carried out. The statistical units are the international movements (arrivals and dispatches, but excluding transit trade) of ships in Italian ports. They are stratified firstly based on shipping category (solid bulk, liquid bulk, container and general cargo) and secondly on the relevance of the sampled ports, according to traffic data supplied by Port Authorities. Subsequently, the attribution of residence to the shipping manager is carried out thanks to an international maritime register that reports such information.

A further estimate relevant for balance of payments compilation concerns the transit trade made by Italian carriers, generally for shipping. In fact, sea transport is a highly competitive and world-wide business, where ships move according to market trends, independently of countries of origin and destination; the consequence is that Italian (and whatever nationality) ship managers carry out a great part of (frequently, most of) their activity completely outside national borders. Such activity is estimated from the difference between the global capacity of the fleet controlled by Italian ship managers and the tonnage and the turnover related to Italian exports and imports transported.

For road transport, the data collection is conducted within another survey carried out by the Bank of Italy, i.e. the survey on international travel. In detail, lorries are counted and registered at frontier borders on the basis of their dimension (two, three or more axes) and of the nationality of the number plate. Subsequently, sample data are weighted on the basis of frontier border importance, in terms of road merchandise transport and of average loads.

For air transport mainly external administrative sources are used; the data are supplied by the Italian Civil Aviation Authority (ENAC) and from Assoaeroporti, Italy’s airport industry association, and provide information on the annual volumes transported by carriers, broken down by country of residence. The same holds true for rail transport, for which the administrative data are drawn mainly from Italy’s rail safety agency (ANSF) and ISTAT.
9.7.6 Gross fixed capital formation in ships

ISTAT estimates GFCF broken down by products. This paragraph deals with the estimation process of ‘ships and floating equipment’ (code 30.11 of ‘Statistical Classification of Products by Activity in the European Union, Version 2.1’)\(^{(52)}\).

The estimate process can be split in four steps:

- fill in the complete list of new ships bought by companies;
- price estimate for each ships;
- ships bought by Public Administration and by the Minister of Defense;
- import and export of second-hand ships adjustment.

The complete list of new ships bought in the years is compiled using different sources: the main one is the Italian Ship Register (RINA) – list of annual certificate ships and characteristics\(^{(53)}\). This register includes all the ships, which take the Italian flag in the year; only new ships are considered at this step.

The list is then integrated with the registers of other international certification Agencies, such as Bureau Veritas/Veristar, Germanisher Lloyd/GL Group and American Bureau of Shipping/ABS Eagle.

The list of new ships is checked with IHS Fairplay register, evaluating the variables: country of economic benefit and operator. In fact, RINA and the other registers report the flag and the operator of the ships, therefore IHS Fairplay register helps to establish the economic ownership of vessels.

Moreover, the ITGS unit supports national accounts in the definition of the list of ships. In fact, according to the Compilers guide on European statistics on international trade in goods\(^{(5)}\) the economic ownership is the variable that define the nationality of vessels and Aircraft. It is relevant for both national accounts and ITGS: in national accounts external trade is restricted to the case when a change in the economic ownership occurs, while in ITGS Vessels and Aircraft are an exceptions to the general rule to identify import and export flows (borders crossing).

The second step is to assign a price to the ships of the list. We search the value of each ship on the notes to financial statements; if it is absent, we estimate an average price for kind of ship, using the ratio: total value of ships/tonnage.

Once the list is defined and the prices estimated, we add the value of ships bought by Public Administration and by the Minister of Defense, for which direct data sources are available.

The final step of GFCF estimate is the import and export of second-hand ships adjustment, introduced for the first time in September 2019, in the general revision of national accounts (Benchmark 2019).

The adjustment, related to import, increases the value of GFCF: ships imported are added to list, obviously excluding new ships already in the list; while the one, related to export, has a negative effect on GFCF. The latter does not involve ships exported by companies that the main economic activity is building ships (new ships). The Table below points out the value (percentage) of the adjustment on GFCF due to import and export of second-hand ships.

**Table 30: Effect on GFCF of second-hand ships adjustment (percentage)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Effect on GFCF Import</th>
<th>Effect on GFCF Export</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>13%</td>
<td>-19%</td>
<td>-6%</td>
</tr>
<tr>
<td>2016</td>
<td>11%</td>
<td>12%</td>
<td>-1%</td>
</tr>
</tbody>
</table>

Source: ISTAT

ITGS data are used to adjust GFCF estimate according to second-ships external trade; this source, as mentioned above, supports the estimate of GFCF in different steps of the process.

ITGS unit support is really important for GFCF estimate. In fact, ITGS microdata present complete

\(^{(52)}\) The author would like to thank the colleagues of Gross Capital Formation unit for sharing all available information. Special thanks to Antonio Regano with whom I developed the import and export of second-hand ships adjustment.

\(^{(53)}\) RINA annually provides the list and the main characteristics of the ships entering in the sea transport fleet and the fishing fleet flying the Italian flag.
information for observations above a certain threshold, which include all import and export of ships. In order to identify the economic ownership, ITGS unit uses the *IHS Fairplay* and contacts directly companies involved.

**Figure 39: ITGS estimate scheme**

<table>
<thead>
<tr>
<th>Import-Export data sources (census upon a threshold)</th>
<th>Goods crossing border</th>
<th>Except for ships and aircraft (economic ownership)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct contact with companies</td>
<td>IHF Fairplay</td>
<td></td>
</tr>
</tbody>
</table>

*Source: ISTAT*

**9.7.7 Final remarks**

The estimation methodology of Merchandise Transport, in particular the Sea Transport Services, is very articulated and requires the use of many (and expensive) sources, but it allows for reliable and consistent estimates, matching the requests of both, the BPM6 and the ESA 2010. The estimate of GFCF requests, as well, the use of many sources and also case by case studies, due to the difficulties to attribute the economic ownership of ships. The cooperation among different units of ISTAT and other institutions guaranties the quality of the results. The complexity and interconnection of estimate methodologies, described above, underline the need of cooperation among institutions. Consistency and coordination request quite an effort from ISTAT and Bank of Italy, in term of time and resources, but the results achieved can be considered satisfying.
9.8 Case study Cyprus: Compilation of statistics on sea transport

9.8.1 Summary

Shipping is considered as the backbone of global trade and, by extension, the global economy. We ship everything; raw materials, food, technology, medicines, consumer goods and memories. This report highlights the importance of the shipping sector in Cyprus and describes the main channels used for the compilation of statistics in the areas of foreign trade statistics, national accounts and external statistics.

9.8.2 Introduction

Cyprus has a unique location in the Eastern Mediterranean at the hub of three continents and close to the trade routes linking Western Europe with the Middle East, Africa and the Far East. The island’s ideal location has contributed to its development into a thriving international business and shipping centre. Although the history of the sea and shipping in Cyprus traces back thousands of years, the country’s economy witnessed an upsurge with the modernisation of all business and commercial sectors, after the independence of the country in 1960. Today, the Cyprus Registry is classified as the 11th largest merchant fleet globally and the 3rd largest fleet in the European Union with more than 1,000 ocean-going vessels totalling GT 24 million.

Cyprus is considered to be the largest third party ship-management centre in the European Union, and one of the largest in the world. A large number of ship-owning, ship-management, chartering and shipping related companies maintain fully-fledged offices and conduct their international activities from Cyprus. Some of the largest ship-management companies in the world have their headquarters and conduct their operations from Cyprus. It is estimated that approximately 4% of the world’s fleet is managed from Cyprus. Among the ship-owning and ship-management companies established and operating from Cyprus, 90% are controlled by EU, including Cypriot interests.

Companies engaged in chartering, crewing, ship surveying, shipbroking, salvaging and marine insurance, are able to offer first class services to their customers worldwide from their offices in Cyprus. In addition, competent and reputable shipping agents, efficient clearing and forwarding agents, as well as top class ship chandlers, freight forwarders, travel agents and other shipping related companies, are located in Cyprus.

The contribution of the shipping sector to the economy of Cyprus is considered very significant. The Government of Cyprus is well aware that through shipping, Cyprus has distinguished itself by achieving remarkable international ranking and recognition, far beyond its size and boundaries.

- As far as the Gross Domestic Product is concerned, the direct contribution of the sector in value added terms is 4.5%.
- In money terms, the Gross Value Added of the shipping activity is around EUR 800 million and consists of the Ship-owning activity (around EUR 500 million) and the Ship-management activity (around EUR 300 million).
- Shipping sector contributes to the increase in the Government’s annual revenues through tonnage tax from ship-owning and ship-management companies, registration fees and fees from other services as well as for the registration of shipping companies by the Registrar of companies.
- The Cyprus Shipping Industry has created many employment opportunities for Cypriots.

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54 Information extracted mainly from the web site of the Cyprus Shipping Chamber – the trade association of the Shipping Industry in Cyprus.
9.8.3 Scale and structure of the industry

Cyprus shipping taxation system

Cyprus shipping taxation system, which was first approved by the European Union on 24 March 2010 and again more recently in December 2019, includes most of the competitive provisions of the other EU Member States Tonnage Tax systems and also additional ones that provide Cyprus with a comparative advantage.

The said taxation system is available to any ship-owner, charterer or ship-manager that holds, charter or manages a qualifying vessel(55) that performs a qualifying shipping activity. The Tonnage Tax is calculated based on the vessel’s net tonnage and on the range of categories and tax rates as described by the legislation.

Use of international accounting standards by companies

Companies incorporated in Cyprus are required to keep proper books of accounts. Their financial statements should be prepared in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU and International Financial Reporting Standards, as issued by the International Accounting Standards Board (IASB).

With the issuance of the revised standard for the accounting of leasing in financial statements of lessees (IFRS 16), in effect as from 1 January 2019, all companies using rentals or leasing to obtain access to assets, were affected. The presentation of Cyprus’ position/treatment of the change in lease accounting for the application of economic ownership for imports and exports of vessels is given below:

The position of the lessor

The accounting treatment for the lessor (i.e. legal owner of the vessel) under IFRS 16 remains substantially the same as under the previous leasing standard (IAS 17).

Particularly, under IAS 17, the lessor derecognises the vessel from the balance sheet only if the lessor transfers substantially all of the risks and rewards of ownership of the vessel to the lessee (for example, when the lease term is for the majority or all of the vessel’s useful economic life). In this respect, the substance under IAS 17/IFRS 16 is similar, although not exactly the same, to the definition of economic owner.

The position of the lessee

Under IFRS 16 the lessee accounting is significantly different from the treatment under the guidance in IAS 17. In particular, IFRS 16 introduces a single lessee accounting model, which requires a lessee to recognise on its balance sheet assets and liabilities for all leases with a term of more than 12 months, unless the underlying assets is of low value. In this context, a lessee is required to recognise the ‘right-of-use’ of an asset representing its right to use the underlying leased asset and a leased liability representing its obligation to make lease payments. The lessee records depreciation of the right-of use asset and interest on the lease liability in the profit and loss statement. In addition, under IFRS 16 and contrary to the previous standard IAS 17, the treatment of all types of leases is the same. Lessees do not anymore distinguish between operating and financial leases.

In the light of the above, in the case of the lessee, the substance of the transaction is carefully examined before deciding who is the economic owner of the vessel, having in mind that the lessee should always include in its Balance Sheet the vessel.

9.8.4 Methodology and data analysis

It is worth mentioning that collection and compilation of data of the shipping sector is a common project between the Central Bank of Cyprus and the Statistical Service of Cyprus and thus fully consistency is guaranteed for external statistics, national accounts, as well as foreign trade statistics.

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(55) A qualifying vessel is every seagoing vessel that has been certified according to the current international or national regulations and is registered in the register of any country that is a member of the International Marine Organisation and the International Labour Organisation and that has been recognised by the Cyprus Republic.
Definition of the population

- Ship-owning

The identification of an import and export transaction based on the economic ownership principle is a difficult task due to the complexity of the shipping sector and of the economic ownership principle which requires the examination of the substance of the transactions before deciding who is the economic owner of a vessel. It requires the use of multiple sources and in many cases direct contact with involved parties. Another issue is the lack of information for:

- leasing contracts between involved parties
- vessels prices
- business accounts
- The national tax system for vessels, which provides for simplified reporting by maritime companies.

Cyprus uses several different data sources in order to obtain information about changes of economic ownership of vessels:

International vessel databases

The use of an international database for vessels is necessary in order to assure the coverage of transactions, to obtain information necessary to decide on who are the economic owners of vessels and obtain vessels price information.

- Cyprus currently has access to IHS Markit international database for vessels. The said database provides Cyprus with:
  - Web interface;
  - Detailed information on vessels characteristics (vessel name, vessel IMO, gross ton, type of vessel, build date etc);
  - Detailed information on ownership, management and operators of vessels;
  - Historical data for each vessel.

National vessels register from Cyprus Deputy Ministry of Shipping

National vessels register is a main data source for Cyprus; It is maintained by Cyprus Deputy Ministry of Shipping, and it provides information about:

- Registrations and deletions of vessels;
- Fleet of vessels at the end of each reference month;
- Information on vessels characteristics (vessel name, vessel IMO, gross ton, type of vessel, build date etc);
- Ownership, management and chartering information for each vessel;
- Intrastat declarations (Intrastat system) which cover imports and exports of vessels relating to Intra-EU trade statistics;
- Customs declarations (Customs Authority) which cover imports and exports of vessels relating to Extra – EU trade statistics;
- VAT data on imports of vessels from TAX Authority;
- Further to all the above mentioned data sources, the complexity of the contracts for maritime industry require in many cases direct verification of economic ownership principle from the involved parties via email or telephone contacts.

Ship-management and companies offering auxiliary services

Population of the aforementioned group of companies is identified through the Business Registry maintained by both authorities;
Country cases: an overview of national experience with statistical recording of sea and air transport

- Criterion of economic ownership

The change of economic ownership of vessels is the criterion used for recording import and export transactions for vessels. The economic ownership is the right of a natural or legal person to claim the benefits associated with the use of a vessel in the course of an economic activity by virtue of accepting the associated risks.

Cyprus uses 2 main methods in order to identify the economic owner:

- List of indicative criteria;
- Business accounts kept in accordance with IFRS 16 (IAS 17 until 31/12/2018).

Based on the data available, the indicative criteria method is mostly applied, however, any available information on business accounts is, additionally, utilized.

List of indicative criteria

The economic owner of a vessel is considered as the entity who:

- Accepts all or most of the operating risks (losses) related to the use (operation) of the vessel and receives all or most of the economic benefits (profits) from the use (operation) of the vessel;
- Is responsible for providing (paying for) repair and maintenance of the vessel;
- Has the option to purchase the vessel at the end of the lease period at a price that is lower than the fair value;
- Leases the vessel so that the present value of the lease payments amounts to the fair value of the vessel at the inception of the lease;
- Leases the vessel for the major part of its economic life;
- Has the unilateral right to terminate the lease contract;
- Has responsibility for replacing the vessel in the event of a serious and prolonged breakdown;
- Uses the vessel in its main activity.

When the list of criteria is used to decide on who is the economic owner of the vessel, the entity who fulfils all or the majority of the criteria is considered as the economic owner of the vessel. The first criterion (a.) is considered as the most important; the remaining criteria could be used as additional practical tools for defining the economic owner of the vessel.

Business accounts kept in accordance with IFRS 16

In the case of this method, the economic owner of a vessel is considered to be the legal entity (legal owner or lessee) who, according to international accounting standards, includes the value of the vessel as a fixed asset in its Balance Sheet, when it has all or the majority of risks and rewards from the operation (use) of the vessel. This method could be used in the case of examination of the business accounts of the lessor. However, in the case of the lessee further examination and direct contact with the parties involved is necessary.

- Compilation of data
  - Foreign Trade Statistics

The information on registrations and deletions of vessels as well as changes in legal ownership of vessels from Cyprus Deputy Ministry Register of Vessels are used as a trigger for further investigation of a possible change of economic ownership.

The information on change of legal ownership of vessels from IHS Markit database are also used as a trigger for further investigation.

Direct contact with the parties involved is established, in many cases, via email or telephone. An electronic questionnaire is send to the said parties, through which we request information on the economic ownership of the vessel for current and previous periods.
o Valuation of vessels:

In certain cases, the values of vessels are available via Intrastat declarations, custom declarations, VAT data, national and international databases/registers and published company accounts or published information (e.g. websites).

In the case where a vessel’s value is not available, an estimation of its value is used. Data from IHS database and publicly available information are used to establish coefficients based on gross ton, type of vessel and age. The coefficients of value per ton and age group are updated approximately every 6 months.

- Ship-management sector

Ship management companies are fully fledged entities that own premises in Cyprus. According to the Business Register, there are 65 such companies operating in Cyprus. Annual financial statements are collected from the Department of Registrar of Companies and Official Receiver for 25 of them only. The remaining 40 companies, report relevant data for approximately 2,300 ships (70% of the total sector), on a semi-annual basis, through the ‘Ship-management survey’ conducted by the Central Bank of Cyprus (CBC). Data are reported directly to the CBC at T+35 days after the end of the reference period to which they relate. The same data are in turn forwarded to the Statistical Service, for national accounts purposes.

The first part of the survey requires details of the person responsible for filling in the survey, identification of the reporting entity, total number of employees and total number of ships managed irrespective of the residency of the ship-owner. The second part of the survey requires analytical information on the country and type of revenues earned as well as expenses incurred. Resident-to-resident transactions are also surveyed for national accounts purposes.

Additional information concerning the structural analysis of the ship-management sector are collected, for the preparation and publication of a ship-management report, which is published twice a year by the Statistics Department of the CBC and highlights the importance of the sector in the economy.

- Ship-owning sector

In Cyprus there are around 1,000 registered ships, whose economic owners are Cyprus registered/incorporated companies (in the majority foreign owned).

With the implementation of ESA 2010 and the BPM6 in 2014, the Statistical Service of Cyprus (Cystat) and the CBC incorporated the impact of the ship-owning activity in the National Accounts and External Statistics, respective. The aforementioned manuals, introduced, for the first time, the definition of the economic ownership on mobile assets. In Cyprus, the great majority of the legal owners of the ships are Special Purpose Entities (SPEs), with little or no physical presence and a non-resident ‘Ultimate Beneficial Owner’. Most of these legal owners are also the ‘Economic Owners’, since the ships are leased under a time-chartering contract, which means that economic ownership remains to the lessor.

As a rule of thumb, one legal unit is the legal owner of one ship, in order to minimize the risk of the Ultimate Beneficial Owner. Since in most cases, SPE’s have no physical presence, the economic owners of the ships appoint representatives, which are either Law or Accounting firms, in Cyprus. Furthermore, since the majority of ship-owning companies have chosen to be taxed under the tonnage tax option, they are not legally obliged to submit financial statements to the tax authorities.

As a result of the absence of physical presence in the case of most ship-owning companies and the fact that only a small number of financial statements are submitted to the tax authorities, Cystat has faced a serious problem in finding sources of information regarding the economic activity of these entities. Consequently, in 2013, a common ship-owning survey was launched by both Cystat and the CBC, in order to cover the activity of around 70 ships whose economic owner had a physical presence in Cyprus. Through the said survey, we have collected information regarding the technical characteristics of the ship together with economic data such as revenues, operation costs, loans etc. The small size of the sample together with the fact that the survey did not cover representatively all the types of ships, indicated that further sources were needed.

In view of the above and in order to collect full information on basic characteristics (i.e. type of ship, gross tonnage, age) and limited economic data of the operation of the ship (i.e. revenues, leasing fee), where available, a subscription to an International ship registry (IHS Markit) was deemed necessary. The said database provides full information about the characteristics of all types of ships together with
their ownership structure (Legal Owner, Commercial Owner and Ultimate Beneficial Owner).

The information collected from the IHS Markit is used in stratification model in order to gross-up to the population of the ship-owners the economic data collected from the ship-owning survey. The characteristics (strata) used are the type and the gross tonnage capacity of the ship.

Additionally, in 2018, the Cystat and the CBC launched a new ship-owning survey in order to enhance the economic information collected from the international database. This new annual survey is addressed to the biggest seven accounting firms in Cyprus, which, in total, represent a large number of ship-owning companies. Although for many years these accounting firms were reluctant to provide any economic information regarding their clients, they have been convinced that a questionnaire that collects aggregated economic information by basic characteristic (type and gross tonnage) assures the anonymity of their clients and avoids the individual reporting on a ship by ship level. This new survey is used in combination with the other two sources and the findings are already incorporated in the benchmark revision of 2019.

- **Depreciation of Ships**

The solid estimation of the value of depreciation of ships is of outmost importance, since the Gross National Income (GNI) is affected through the calculation of the property income. As mentioned above, the Ship-owning companies registered in Cyprus are foreign owned and the profits from their operation are paid to the country of the beneficial owner. Specifically, Property Income payable to the Rest of the World equals the Value Added of the activity minus the tonnage tax paid to Cyprus Government and the depreciation of the ship. The property income represents the Net Operating surplus/loss and is usually in the form of reinvested earnings.

In order to precisely estimate the depreciation of ships, information on the average life of ships from the IHS Markit international ship database was sought. The actual number of years that a ship is in service until it retires was available for more than 11,000 worldwide cases for the years 2010 to 2016.

In the IHS Markit there is information on the year that the ship was delivered and on the year it was sent for broken-up. The average service life was calculated by type of ship. The average service life is quite different for each type of ships and it can vary from 22 years (crude oil tankers) to 43 years (for Tugs). The mean average life of ships is 31 years. The three main ship types worldwide (General Cargo, Bulk carrier and Containers) are also observed in the Cyprus fleet.

The average service life estimations from IHS Markit were selected for the main types of ships observed in the Cyprus fleet. The Depreciation was estimated by applying the Perpetual Inventory Method (PIM), favoured by Eurostat and other international organisation for the estimation of the depreciation, using for each case the different lifetime assumption.

The depreciation value equals around 1% of GNI, with half of the impact coming from the Bulk carriers.

- **Auxiliaries to shipping entities**

Companies offering auxiliary services in the field of shipping are covered by the CBC on a quarterly basis in the context of the ‘Services Survey’.
### 9.8.5 Annex survey forms

Ship-management survey (available on Central Bank of Cyprus’s web site)

<table>
<thead>
<tr>
<th>CENTRAL BANK OF CYPRUS EUROSystEm</th>
<th>FORM 1.1</th>
<th>Bi-annual Survey &quot;SM&quot;</th>
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<td>Reference No.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

**Details of current reporting**

- Reporting period (1H or 2H)
- Reporting Year (yyyy)
Country cases: an overview of national experience with statistical recording of sea and air transport

<table>
<thead>
<tr>
<th>CENTRAL BANK OF CYPRUS EUROSYSTEM</th>
<th>FORM 1.2</th>
<th>Bi-annual Survey &quot;SM&quot;</th>
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<tbody>
<tr>
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<td>Reference No.</td>
</tr>
</tbody>
</table>

**DETAILS OF THE PERSON RESPONSIBLE FOR FILLING IN THE SURVEY "SM" / REPRESENTATIVE**

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<thead>
<tr>
<th>Name</th>
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<table>
<thead>
<tr>
<th>Name of employer</th>
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<table>
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<table>
<thead>
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<th>Building</th>
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<table>
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<table>
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<th>Postal code</th>
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<table>
<thead>
<tr>
<th>Town/Village</th>
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<table>
<thead>
<tr>
<th>District</th>
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<td></td>
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</table>
Country cases: an overview of national experience with statistical recording of sea and air transport

<table>
<thead>
<tr>
<th>Name of Reporting Entity</th>
<th>(as recorded in the register of the Registrar of Companies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference number of reporting entity*</td>
<td></td>
</tr>
<tr>
<td>Detailed description of the reporting entity’s main business activities</td>
<td></td>
</tr>
<tr>
<td>Total number of employees included in the reporting entity’s payroll</td>
<td></td>
</tr>
<tr>
<td>Total number of ships managed by the company (owned by both resident or non-resident entities)</td>
<td></td>
</tr>
</tbody>
</table>

**Address:**
- Street/Avenue
- Number
- Building
- Floor
- Flat
- PO Box
- Postal code
- Town/Village
- District
- Email address

*Please enter the company registration number assigned by the Registrar of Companies in Cyprus preceded by the appropriate letters:

- HE = Onshore limited company, O = Overseas company, P = Partnership, EE = Business name.

For an entity not registered with the Registrar of Companies, please enter the Value Added Tax number of the entity, preceded by the letters VAT or the Social Insurance Number preceded by the letters SI.

Once you enter this number here, it will automatically appear at the top right hand side of each form.
### Income from Services Rendered by the Resident Reporting Entity

<table>
<thead>
<tr>
<th>Country* from which revenue has derived</th>
<th>Management Fee received</th>
<th>Consultancy Fees</th>
<th>Freight</th>
<th>Insurance</th>
<th>Charter Fee received</th>
<th>Other Income</th>
<th>TOTAL</th>
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<tbody>
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<td>€</td>
<td>€</td>
<td>€</td>
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<td>€</td>
<td>€</td>
<td>0</td>
</tr>
<tr>
<td>Belgium</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>0</td>
</tr>
<tr>
<td>Canada</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>0</td>
</tr>
<tr>
<td>China</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>0</td>
</tr>
<tr>
<td>Denmark</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>0</td>
</tr>
<tr>
<td>France</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>0</td>
</tr>
<tr>
<td>Germany</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>0</td>
</tr>
<tr>
<td>Greece</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

* Please insert new rows for countries other than those foreseen in the table.

### Analysis of "Income from non resident entities":

(please complete the relevant cells without deleting/adding columns)
Country cases: an overview of national experience with statistical recording of sea and air transport

<table>
<thead>
<tr>
<th>Name of Ship Owning Company</th>
<th>Nationality of Beneficial Owner</th>
<th>Flag State</th>
<th>Ship Details</th>
<th>Ship management details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Type of Ship</td>
<td>Type of Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Name of Ship</td>
<td>Full Crew, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Type</td>
<td>Duration</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Age of ship</td>
<td>Months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DWT-Carrying Capacity</td>
<td>Date signed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TEU-Capacity</td>
<td>Guard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Crew employment contract</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gross Revenue</td>
<td>Payment</td>
</tr>
</tbody>
</table>

Structural Analysis of Ship Management Fees

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Type</th>
<th>Years</th>
<th>Number</th>
<th>Number</th>
<th>Type</th>
<th>Type</th>
<th>Duration</th>
<th>Date signed</th>
<th>Payment</th>
<th>Currency</th>
</tr>
</thead>
</table>

169
Country cases: an overview of national experience with statistical recording of sea and air transport

<table>
<thead>
<tr>
<th>CENTRAL BANK OF CYPRUS</th>
<th>FORM 2.3</th>
<th>Bi-annual Survey &quot;SM&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting Period</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Reference No.</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**ANALYSIS OF MANAGEMENT FEES RECEIVED FROM SHIPOWNING COMPANIES WHOSE SHIPS ARE MANAGED BY THE REPORTING ENTITY**

<table>
<thead>
<tr>
<th>Name of shipowning company</th>
<th>Country of non resident owner's residence</th>
<th>Type of shipmanagement offered by the reporting entity (in the appropriate cells)</th>
<th>Total management fees €</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Full Management</td>
<td>Crew Management</td>
</tr>
</tbody>
</table>

- **Cypriot flag registered ships**
  - Full Management: 0
  - Crew Management: 0
  - Technical Management: 0
  - Total management fees: 0

- **Foreign flag registered ships**
  - Full Management: 0
  - Crew Management: 0
  - Technical Management: 0
  - Total management fees: 0

*Please insert new rows where necessary.*


**Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments**

Country cases: an overview of national experience with statistical recording of sea and air transport

---

### FORM 3

**EXPENSES INCLUDED BY THE RESIDENT REPORTING ENTITY**

<table>
<thead>
<tr>
<th>Country*</th>
<th>Ceylon</th>
<th>China</th>
<th>Cyprus</th>
<th>France</th>
<th>Germany</th>
<th>Greece</th>
<th>India</th>
<th>Ireland</th>
<th>Italy</th>
<th>Japan</th>
<th>Korea</th>
<th>Luxembourg</th>
<th>The Netherlands</th>
<th>Spain</th>
<th>Sweden</th>
<th>Switzerland</th>
<th>UK</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL EXPENSES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Notes:**

- **6** Are included in the current account of the balance of payments.
- **6.3** Includes exchange losses on loans, credit balances, and guarantees for which no interest is charged.
- **6.4** Includes foreign exchange reserves, other assets, and liabilities.

---

**TOTAL**

- **6**
- **6.3**
- **6.4**

---

**Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments**

---

171
Ship-owning surveys (available on Central Bank of Cyprus’s web site)

<table>
<thead>
<tr>
<th>CENTRAL BANK OF CYPRUS</th>
<th>FORM 1.1</th>
<th>Annual Survey &quot;SO&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting period:</td>
<td>0 0</td>
<td>Reference No. HE</td>
</tr>
</tbody>
</table>

**DETAILS OF CURRENT REPORTING**

- Reporting period:  
- Reporting Year (yyyy):

<table>
<thead>
<tr>
<th>CENTRAL BANK OF CYPRUS</th>
<th>FORM 1.2</th>
<th>Annual Survey &quot;SO&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting period:</td>
<td>0 0</td>
<td>Reference No. HE</td>
</tr>
</tbody>
</table>

**DETAILS OF THE PERSON RESPONSIBLE FOR FILLING IN SURVEY "SO" / REPRESENTATIVE**

- Name:  
- Name of employer:  
- Telephone number:  
- Facsimile number:  
- E-mail address:  

**Address:**

- Street/Avenue:  
- Number:  
- Building:  
- Floor:  
- Flat:  
- P.O.Box:  
- Postal code:  
- Town/Village:  
- District:  

*The linked image cannot be displayed. The file may have been moved, renamed, or deleted. Verify that the file path is correct.*
### Country cases: an overview of national experience with statistical recording of sea and air transport

<table>
<thead>
<tr>
<th>Name of resident reporting entity (as recorded in the Registrar of Companies' register)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference number of resident reporting entity:</td>
</tr>
<tr>
<td>Detailed description of the resident reporting entity's main business activities:</td>
</tr>
<tr>
<td>Total number of employees included in the payroll:</td>
</tr>
<tr>
<td>Total number of ships owned by the company:</td>
</tr>
<tr>
<td>Street/Avenue</td>
</tr>
<tr>
<td>Number</td>
</tr>
<tr>
<td>Building</td>
</tr>
<tr>
<td>Floor</td>
</tr>
<tr>
<td>Flat</td>
</tr>
<tr>
<td>POBox</td>
</tr>
<tr>
<td>Postal code</td>
</tr>
<tr>
<td>Town/Village</td>
</tr>
<tr>
<td>District</td>
</tr>
<tr>
<td>E-mail address:</td>
</tr>
</tbody>
</table>
## DATA FROM THE ACCOUNTING BOOKS
### OF THE RESIDENT REPORTING ENTITY

<table>
<thead>
<tr>
<th></th>
<th>At the beginning of the reporting period</th>
<th>Increase (+) / decrease (-) during the reporting period</th>
<th>At the end of the reporting period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of equity shares issued by the resident entity</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Share Capital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserves</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liabilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit / Loss</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Country cases: an overview of national experience with statistical recording of sea and air transport

#### FORM 1.1

**Annual Survey "SO"**

<table>
<thead>
<tr>
<th>Reporting period</th>
<th>0 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference No.</td>
<td>SE</td>
</tr>
</tbody>
</table>

#### NON RESIDENT DIRECT INVESTMENT BUSINESS ENTITIES' DATA

<table>
<thead>
<tr>
<th>Investment relationship</th>
<th>Name of non-resident entity</th>
<th>Country of residence code</th>
<th>Economic activity code</th>
<th>Resident entity % holding</th>
<th>Total Value of Investment</th>
<th>Dividends receivable</th>
<th>Share of Profits/Losses attributed</th>
<th>Name of Ultimate Beneficial Affiliate</th>
<th>Country of residence code</th>
<th>Economic activity code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>investment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>held 20%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Direct                  |                             |                           |                        |                          |                           |                       |                                     |                             |                           |                        |
| investment              |                             |                           |                        |                          |                           |                       |                                     |                             |                           |                        |
| owned 50%              |                             |                           |                        |                          |                           |                       |                                     |                             |                           |                        |

*Please add new rows where necessary.*
### Country cases: an overview of national experience with statistical recording of sea and air transport

#### Direct Investment - Fellow Business Entities

<table>
<thead>
<tr>
<th>Investment relationship</th>
<th>Country of residence of direct investment</th>
<th>Claims</th>
<th>Interest income</th>
<th>Liabilities</th>
<th>Interest Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Short Term</td>
<td>Long Term</td>
<td>Accrued</td>
<td>Receivable</td>
</tr>
<tr>
<td>Direct investment entity 100%</td>
<td></td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Direct investment entity 50-99%</td>
<td></td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Direct investment entity 10-49%</td>
<td></td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Fellow entities</td>
<td></td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>ultimate beneficiaries</td>
<td></td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>persons or entities in a resident of Cyprus</td>
<td></td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
</tbody>
</table>

*Please insert new rows where necessary.*
Country cases: an overview of national experience with statistical recording of sea and air transport

<table>
<thead>
<tr>
<th>Form 3.1</th>
<th>Annual Survey &quot;50&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exporter code</td>
<td>E</td>
</tr>
</tbody>
</table>

**Non Resident Direct Investors' Data**

<table>
<thead>
<tr>
<th>Type of investment relationship</th>
<th>Name of non-resident</th>
<th>Country of residence code</th>
<th>Economic activity code</th>
<th>Nominal Value of investment</th>
<th>Dividends or Net interest</th>
<th>Share of Profits/Losses stated</th>
<th>Name of ultimate beneficial owner</th>
<th>Country of residence code</th>
<th>Economic activity code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Investor  &gt;50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Investor  &lt;50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Investor  DI-A PA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments
Country cases: an overview of national experience with statistical recording of sea and air transport

<table>
<thead>
<tr>
<th>Investment relationship</th>
<th>Country of residence</th>
<th>Claims</th>
<th>Interest Income</th>
<th>Liabilities</th>
<th>Interest Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Short Term</td>
<td>Long Term</td>
<td>Accrued</td>
<td>Receivable</td>
</tr>
<tr>
<td>Direct Investor ≥50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Investor 10-50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fellow entities whose ultimate beneficial owner is a nonresident of Cyprus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Country cases: an overview of national experience with statistical recording of sea and air transport
<table>
<thead>
<tr>
<th>CENTRAL BANK OF CITRUS</th>
<th>FORM 4.2</th>
<th>Annual Survey &quot;SO&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting period</td>
<td>0</td>
<td>Reference No.</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>HE</td>
</tr>
</tbody>
</table>

**VALUE OF THE SHIP**

<table>
<thead>
<tr>
<th></th>
<th>€</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Value of the ship at the beginning of the reporting period:</td>
<td></td>
</tr>
<tr>
<td>(B) TRANSACTIONS DURING THE REPORTING PERIOD (Increases):</td>
<td></td>
</tr>
<tr>
<td>Acquisition of ship</td>
<td></td>
</tr>
<tr>
<td>Valuation changes due to exchange rate movements</td>
<td></td>
</tr>
<tr>
<td>Valuation changes due to price movements</td>
<td></td>
</tr>
<tr>
<td>Capital expenses (excluding processing expenses)</td>
<td></td>
</tr>
<tr>
<td>Processing expenses</td>
<td></td>
</tr>
<tr>
<td>Other; please specify</td>
<td></td>
</tr>
<tr>
<td>TOTAL B</td>
<td>0</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(C) TRANSACTIONS DURING THE REPORTING PERIOD (Decreases):</td>
<td></td>
</tr>
<tr>
<td>Disposal of ship</td>
<td></td>
</tr>
<tr>
<td>Valuation changes due to exchange rate movements</td>
<td></td>
</tr>
<tr>
<td>Valuation changes due to price movements</td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td></td>
</tr>
<tr>
<td>Other; please specify</td>
<td></td>
</tr>
<tr>
<td>TOTAL C</td>
<td>0</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(D) PROFIT (+) / LOSS (-)</td>
<td></td>
</tr>
<tr>
<td>ON THE DISPOSAL OF THE SHIP:</td>
<td></td>
</tr>
<tr>
<td>(E) VALUE OF THE SHIP AT THE END OF THE REPORTING PERIOD:</td>
<td>0</td>
</tr>
<tr>
<td>$I = (A- B - C + D)$</td>
<td>0</td>
</tr>
</tbody>
</table>
**Country cases: an overview of national experience with statistical recording of sea and air transport**

<table>
<thead>
<tr>
<th>Country in which the charter is based**</th>
<th>Chartering fee</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyprus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Please insert new columns for types of income other than those foreseen in the table.*

**Please insert new rows for countries other than those foreseen in the table.*
### Form 4.4

**Annual Survey "SO"**

**Central Bank of Cyprus**

**Eurosystm**

**Reporting period**: 0

**Reference No.**: HE

#### EXPENSES

<table>
<thead>
<tr>
<th>Country</th>
<th>Cyprus</th>
<th>Greece</th>
<th>Oman</th>
<th>UK</th>
<th>USA</th>
<th>Japan</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing expenses</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Interest - to bank</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Interest - to related entity</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Banking expenses</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Ship management expenses (in case where the management of the ship is performed by the ship owning company itself)</td>
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<td>Crew earnings expenses and related expenses</td>
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<tr>
<td>Repairs and maintenance</td>
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<td>Lubricating oils</td>
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<td>Insurances</td>
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<td>Dry docking</td>
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<td>Fuel expenses</td>
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<td>€</td>
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<td>€</td>
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<td>€</td>
</tr>
<tr>
<td>Other sundry expenses</td>
<td>€</td>
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<td>€</td>
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<tr>
<td>Spot Chartering Fees (in case where the chartering is performed by the ship owning company itself)</td>
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<tr>
<td>Port expenses</td>
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<td>Agency fees</td>
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<td>Insurances</td>
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<tr>
<td>Loading / Discharging expenses</td>
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<td>Administration and management costs</td>
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<td>€</td>
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<td>€</td>
<td>€</td>
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<td>Other charges</td>
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<td>€</td>
<td>€</td>
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<tr>
<td>Fees collected by the Department of Merchant Shipping</td>
<td>€</td>
<td>€</td>
<td>€</td>
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<td>Port fees</td>
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<tr>
<td>Certificates, Green Fees</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
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<td>Radio Service Fees</td>
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<tr>
<td>Inspection fees</td>
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<td>Safety fees</td>
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<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Company Incorporation / registration fees</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
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<tr>
<td>Fees for the registration of the ship</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
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</tr>
<tr>
<td>Secretary, Director's and other management fees</td>
<td>€</td>
<td>€</td>
<td>€</td>
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<td>€</td>
<td>€</td>
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<td>Registered address fees</td>
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<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Admiralty proceedings, court litigations, required certifications, etc.</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
<tr>
<td>Depreciation</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
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<tr>
<td>Vessel depreciation</td>
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<tr>
<td>Other depreciation</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
<td>€</td>
</tr>
</tbody>
</table>

| TOTAL | € | € | € | € | € | € | € |

* Please insert new rows for countries other than those foreseen in the table.

** Please insert new rows for types of expenses other than those foreseen in the table.
### CYPRUS “SHIP OWNING” COMPANIES QUESTIONNAIRE: “SURVEY SO”

#### A. DETAILS OF CURRENT REPORTING

- **A.1** Description of the current reporting methods
- **A.2** Summary of the data collected
- **A.3** Number of ships registered with the reporting companies
- **A.4** Validation data

<table>
<thead>
<tr>
<th>Ship Type</th>
<th>Number</th>
<th>Gross Tonnage</th>
<th>Revenue from Shipping</th>
<th>Total Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>By Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dredged</td>
</tr>
<tr>
<td>Chemical / Oil Tanker</td>
</tr>
<tr>
<td>Cargo Tanker</td>
</tr>
<tr>
<td>Tug</td>
</tr>
<tr>
<td>General Cargo / Multi-purpose</td>
</tr>
<tr>
<td>Supply Ship / Support Vessel</td>
</tr>
</tbody>
</table>

#### B. SPECIFIC FINANCIAL AND OTHER DETAILS OF THE REPORTING ENTITIES

- **B.1** Financial information on activities other than shipping (e.g., charter)
- **B.2** Expenses incurred by the Reporting Entities

#### B.3** Total Assets of the Reporting Entities

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments</td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td></td>
</tr>
</tbody>
</table>

#### B.4** Balance Sheet of the Reporting Entities

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

#### B.5** Capital & Reserves of the Reporting Entities

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

#### C. DETAILS OF THE PERSON RESPONSIBLE FOR FILING THE QUESTIONNAIRE/REPRESENTATIVE

- **C.1** Name of the person responsible for filing the questionnaire
- **C.2** Telephone number
- **C.3** Email address

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**Country cases: an overview of national experience with statistical recording of sea and air transport in national accounts and balance of payments**
9.9 Case study Luxembourg: Most important contracts for sea transport

9.9.1 Types of sea transport trades

The sea transport industry is responsible for the carriage of a large part of the world trade. There are different types of ships such as bulk carries or container ships. Furthermore, there exists different types of sea transport trades:

- **Tramp sea transport**

  It is defined by Council Regulation (EEC) No. 4056/86 (Section 1. Article 1(3a)) as follows:

  ‘Tramp vessel services means the transport of goods in bulk or in break bulk in a vessel chartered wholly or partly to one or more shippers on the basis of a voyage or time charter or any other form of contract for non-regularly scheduled or non- advertised sailings where the freight rates are freely negotiated case by case in accordance with the conditions of supply and demand’. There is no fixed routing, itinerary nor schedule for tram transport services. Tramp transport is available at short notice (or fixture) to load any cargo from A to B.

- **Liner sea transport**

  In contrast, liner services are both regularly scheduled and advertised in advance. Liner services provide transport for cargoes that are generally too small to fill a single ship and need to be grouped with others for transport. The ships operate on a regular advertised service between ports, carrying cargo at either fixed, or negotiable prices. Liner services are today almost exclusively containerised, meaning that cargoes are shipped in individual standard-sized containers (boxes)(56).

  The liner sea transport sector moves mostly containerized goods and vehicles.

9.9.2 Contractual arrangements in sea transport

A charter party is a maritime contract between a ship-owner and a charterer for the hire of either a ship for the carriage of passengers or cargo or a yacht for pleasure purposes. There are three main types of a charter party: time, voyage and bareboat/demise charter. Chapter 4 Contractual agreements for sea and air transport presents the commonly used arrangements within the sea transport industry between ship-owners and operators/ship-managers. Further contractual arrangements are described in this Chapter.

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(56) For details please see: Legal and economic analysis of tramp maritime services, EU Report COMP/2006/D2/002.
Table 31: Overview on charter contracts

<table>
<thead>
<tr>
<th>Voyage Charter (V)</th>
<th>Time Charter (T)</th>
<th>Bareboat/Demise charter (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Contract of Affreightment or Tonnage Contract</td>
<td>• Slot Charter</td>
<td>• Co-operation Agreements</td>
</tr>
<tr>
<td>• Space Charter</td>
<td>• Co-operation Agreements</td>
<td>• Among these: Pool Agreement</td>
</tr>
<tr>
<td>• Cross-Space Charter</td>
<td>• Among these: Pool Agreement</td>
<td>• Yacht Charter</td>
</tr>
<tr>
<td>• Slot Charter</td>
<td>• Trip Time Charter</td>
<td></td>
</tr>
<tr>
<td>• Co-Service Agreement</td>
<td>• Spot Chartering</td>
<td></td>
</tr>
<tr>
<td>• Trip Time Charter</td>
<td>• Passenger Cruise ship Charter</td>
<td></td>
</tr>
<tr>
<td>• Spot Chartering</td>
<td>• Yacht Charter</td>
<td></td>
</tr>
<tr>
<td>• Forward Voyage Charter</td>
<td></td>
<td></td>
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<tr>
<td>• Passenger Cruise ship Charter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Yacht Charter</td>
<td></td>
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</tr>
</tbody>
</table>

**Contract of Affreightment or Tonnage Contract (V)**

- Basic tenets for a voyage charter:
  - Provide the carriage of certain size and tonnage from port A to port B
- Basic tenets for a contract of affreightment:
  - Provide the carriage of certain size and tonnage from port A to port B
  - Repeat transportation at monthly intervals during 24 months

This form of contract can be considered as a number of voyage charters, agreed at the same time, and forming one contract. Unlike a voyage charter, however, a specific vessel for each cargo is not specified in the contract. Usually it is a long-term contract over several years.

**Forward Voyage Charter (V)**

The ship owner will fix a cargo contractually for his ship in the future. The contract of affreightment is concluded long beforehand (sometimes six months, up to one year), therefore, long before the goods are loaded. The forward voyage charter is a type of booking-note but used in tramp sea transport and not in the liner trade.

**Co-Service Agreement (V)**

Co-service agreements are generally entered into between carriers who agree to provide each other with the relevant capacity to meet the requirements of the customer at a predetermined, common rate agreed with the customer. A similar result can be achieved where the carrier enters into a requirements contract with the customer and sub-contracts part of the work to other carriers

This type of arrangement is common in the chemical tanker trade.

**Space Charter (V)**

A voyage charter party under which the space charterer has the right to use only part of the vessel’s capacity.

**Cross-Space Charter (V)**

A cross-space charter is an agreement (which may be quite informal) between competing ship-owners or operators to supply each other with given capacity, subject to availability. In some cases the
additional capacity will be provided ad hoc on a voyage charter basis, but in other cases (and more commonly in the chemical market) the arrangement are longer term, in which case they are more like reciprocal cross-service agreements, with terms agreed in advance.

**Slot Charter (V, T)**

A time or voyage charter under which the slot charterer has the right to use only a specified amount of the ship's container carrying capacity. In container liner trades, such charters may be reciprocal ('cross slot charters') between operators / carriers, in order to share capacity.

**Trip time charter (V, T)**

A trip time charter is a comparatively short time charter agreed for a specified route only (as opposed to the standard time charter where charterer is free to employ the vessel within agreed trading areas).

**Spot Chartering (V, T)**

Entry into (typically) voyage charter parties or trip time charter parties based on a shipper's immediate requirement to ship cargo, typically at an offered rate of freight, and the current or imminent availability of a ship to carry it. In contrast with period fixtures (time charters and contracts of affreightment), the entry into which may satisfy a ship owner's need for secure employment to support his financing arrangements or represent a 'hedge' or speculation by the ship owner and/or by the charterer against future fluctuations in the freight rates achievable by spot chartering.

**Passenger Cruise ship Charter (V, T)**

The hiring of a passenger cruise ship in regular service for a limited period of time exclusively for a private function, using all accommodations; often for business meetings or conferences, music festivals, charity fundraisers or global events.

**Co-operation Agreement (T, B)**

Contracts between persons with the right to exploit the earning capacity of their vessels (as registered or legal owners, as bareboat charterers, or as time charterers) to co-operate in the marketing and/or use of ships. Standard form documents are not generally used because such agreements take many different forms, described variously as

- co-operation agreements,
- joint venture agreements,
- pool agreements,
- consortium agreements,
- vessel (or space or slot) sharing agreements
- etc.

**Pool Agreement (T, B)**

An agreement between a number of persons who have the right (because they are bareboat or time charterers) to exploit the earning capacity of similar ships to co-operate in the Commercial Management and Commercial Operation of (typically) all such ships controlled by them (whilst each retaining any responsibility which they may have for Technical Operation).

Various legal structures may be adopted, including the establishment of a full function joint venture 'Pool Manager' to whom ships may be time chartered, but the most important characteristic is agreement on a formula (a ‘distribution key’) pursuant to which each ship shall earn from the Pool a share in actual Pool net income (however defined) which is proportionate to that ship's agreed theoretical earning capacity, not its actual earnings in the Pool (save insofar as there is provision for any adjustment, e.g. by way of off hire, in respect of the operational risks retained by the 'owners').

The Pool Manager becomes a ship operator or dispatch owner and has the right to exploit the earning capacity of the vessel. No standard form documents in popular use. No national regulation of detailed terms.
Yacht Charter (V, T, B)

Bareboat charters involve a person renting a boat and skippering it themselves. A skippered charter means that the yacht is rented with a professional crew consisting of a skipper/captain who is responsible for the manoeuvring of the yacht. In several cases the skipper is aided by other crew members as well. For cabin charters, the costs regard just a berth aboard the yacht and the provisioning, both for food and fuel.
9.10 Case study Finland: Compilation of statistics on sea and air transport in national accounts and balance of payments

9.10.1 Introduction

This case study is based on the final report of Statistics Finland on Action 4, Project 1: Recording of transactions related to vessels and aircraft in Balance of Payments and National Accounts. The Action 4 takes a stand on improving consistency in the accounting frameworks. The Action 4, Project 1 is an underlying part of Annex 1 – the Progress towards full implementation of the ESA 2010 and its transmission program for the national accounts, development and implementation of quality framework for the National Accounts data.

The application for the Project 1 was carried out during April 2017. Further questions regarding Project 1 from behalf of Eurostat were answered by 28th of April 2017. As determined by Grant outlines, the timeline of Project 1 was set to be M+24 months (in addition, the final technical report on implementation of the action and financial statement covering all actions: +60 days following the closing date of the action finishing last). The timeline for interim report was set to be M+12 months with the agreed deadline 31st October 2018. The interim report was carried out according to the set deadline. The project was finalized by the 31st August 2019.

The project of a full integration of national accounts and balance of payments in Statistics Finland began in 2017. First steps towards the integration were taken in 2013, when agreements on the transfer of responsibilities and on cooperation in the production of balance of payments statistics between the Bank of Finland and Statistics Finland were signed. The motivation behind the closer co-operation and which eventually led to integrating the balance of payments statistics under Statistics Finland was to promote the integrity and efficiency of national statistical production. Concentrating statistical tasks into Statistics Finland was one of the initiatives included in the Government’s Effectiveness and Performance program. Transfer enabled a tighter integration of the balance of payments statistics into the national accounts framework. Under the integration, the concepts of the ESA 2010 and the BPM6 were fully implemented. To achieve the full coherence benefits from national accounts–balance of payments–integration the IT-system, compilation process, methodology, source data, classifications, publication timetables and revision policies had to be integrated to be equivalent. The stages of these integration phases took place in 2017–2019. In turn, this massive project affected the possibilities of balance of payments specialists to fully participate to Grant during the years 2017 and 2018. For this reason, the first results were failed to be presented in BOPWG in November 2018.

The project was split between divisions of the national accounts and the balance of payments. The tasks relevant to expertise of each specialist were assigned accordingly. The Project faced delays due to overlapping projects, international meetings of co-operation and production of annual and quarterly statistics. Other challenges related to changes in the personnel that momentarily affected the progress of the project.

The main goal of this project is to provide a documentation of sources and methods used for the compilation of trade in vessels and aircrafts in Finland. The sources of information for trade in vessels and aircrafts, recording the vessels and aircrafts in different statistics and the interactions of these records are discussed. The additional specifics were covered as follows:

The comprehensive description of the source of information covered vessels as well as the aircrafts. The aircraft purchases and financial leasing of aircrafts are quite significant activities in Finland, especially during the years covered in project 2015–2017. In the project, the section related to aircraft trade gives special attention to the year 2016, since that is the year, when special cases of financing occurred. It was also a significant year in aircraft trade so far, since five new aircrafts were transferred to Finland under the change of economic ownership. In Finland, all the cases related to aircraft trade are the cases of purchase of an aircraft and aircraft only or the cases of dry lease. The questions related to personnel and employment statistics are not further discussed. The employment of industry 51 – Air transport is compiled correspondingly with common calculations of production and employment accounts with no additional specifications. Spacecrafts are not covered in the scope of this project.
Regarding vessels project also focused on changes in inventories of new vessels. Output and exports and other related transactions, e.g. related financing transactions, are reflected. Goods delivered to vessels are discussed as well. Sea products are not included in the scope of this project. They are not a matter of a great relevance in Finland.

The ITGS statistics of Finnish customs and data achieved through other co-operation with Finnish customs form a robust base for recording trade in aircrafts and vessels in the national accounts and balance of payments. Another statistic of a high importance for the national accounts is the structural business and financial statement statistics regarding changes in inventories in case of vessels, the financial statements of the companies are widely applied. The financial statements, customs data, data based on structural business and financial statement statistics are cross-checked to ensure the consistency and accuracy of the responses. The most relevant source data statistics for the national accounts and balance of payments in recording trade in vessels and aircrafts and changes in inventories of vessels are presented in more details in the chapters concerned.

9.10.2 Aircraft

The section ‘The Aircraft’ investigates the treatment of trade in aircraft in the National Accounts and the Balance of Payment in Finland. During the years 2015–2022 there are significant transactions related to aircraft since the Finnish Airline Company has renewed their aircraft fleet. Altogether 19 new Airbus A350 aircraft were ordered. Two of the new aircraft were delivered during 2015, five in 2016 and additional four in 2017. Officially, three new A350 aircraft were delivered to Finland in 2015 (12/2015), but the financing of one of this aircraft was carried out in 2016 (01/2016). Thus, the aircraft was officially recorded into the statistics to the statistical year 2016. At the timepoint, when this project was launched, the information on the trade of 2016 was available and it was the most noteworthy, one-year delivery in the aircraft trade in Finland. There was also considerable diversity in the methods and means to finance the aircraft. For that reason, the year 2016 was chosen to be the representative year for the project. By the end of 2017 there were altogether 11 new aircraft, by the end of 2022, as planned, there will be 19 new A350 aircraft.

Under this project the consistency in recording aircraft trade was investigated. The data sources, which provide information for national accounts and balance of payments, and the ways the trade in aircraft is treated in their statistics are studied.

Different cases related to aircraft purchases and leasing are discussed. Four different cases, which have different application in recording the trade, were identified. There were cases of simply purchasing the aircraft from a non-resident. Other cases related to operational leasing solutions between the resident and non-resident agents. The most significant cases were the (buy-) sell and leaseback solutions with additional specification of JOLCO leasing.

The national accounts and customs in Finland, as well as balance of payments, record the trade in the aircraft according to ESA 2010 based on the change of the economic ownership. However, divergent financing solutions have individual effects on, whether the change of economic ownership takes place or not. As it was investigated under this project, the same financing solution can be interpreted differently under different accounting legislations. Also, other accounting practices do not lay straightforwardly in line with the interpretations of national accounts and the concept of the change of economic ownership. In some cases, the change of ownership does occur, but the accounting practices allow that the aircraft does not appear fully in the balance sheet of a given company. In such cases, the national accounts cannot use the data from the source statistics straightforwardly but must apply other methods to capture the correct value of the aircraft to balance the supply occurring from the import. The import is balanced with the entry of the same value to the gross capital formation (demand).

To summarize, a comprehensive research regarding trade in industry 51 was executed. Different accounting approaches, the differences between them and the challenges they create for compilation of the production accounts, gross capital formation statistics and for the statistics on international trade in goods and services were closely studied. It can be concluded that in Finland there exists a broad co-operation within different statistical units and external organizations, such as Finnish customs. There is also uniform understanding and congruent methods of recording trade in aircraft.

In Finland the principle of economic ownership is applied when compiling statistics on vessel related transactions. In case of vessels, the most important source is the customs statistics. The customs statistics uses customs declaration and intrastat stat declaration as well as online sources maintained
Country cases: an overview of national experience with statistical recording of sea and air transport

by Finnish Transport and Communications Agency and Equasis as a basis for their data. In this report, we provide time series and classification tables regarding customs statistics data. In case of goods delivered to vessels and transport services, the most important source of data for these is International Trade and Goods Statistics (ITGS) which is maintained by balance of payments (BOP). Their data is based on inquiries sent to companies and public information like news, press releases and financial statements. National accounts (NA) also compiles relevant statistics based on inquiries sent to companies but in case of vessels related transactions, their data is aggregated in such a way so that it doesn’t provide as accurate picture as ITGS does. The consistency of the source statistics (ITGS/ITS, Structural business and financial statement statistics) are compared in the annual National accounts. All the significant companies are included in the surveys. In case of discrepancy more investigations are done, and the more specific questions are addressed directly the water transport company. There are no commercial sources, such as the Lloyd's List used e.g. in Norway, used for compiling statistics in Finland.

Chartering is noted when compiling statistics, but we noticed two difficulties. First, it may be difficult or even ‘impossible’ to find out the economic owner in some cases of chartering agreements. This also applies to some cases of chartering which involve financial leasing. Second, the conceptual framework used by ITGS doesn’t note all chartering types. These aren’t necessarily major issues in Finland because water transport industry is only around 1% of GDP (year 2017) and most of the companies don’t have the economic ownership of their ships in Finland. Even if they do have, then it’s only temporarily because the vessel is immediately sold (this accounts for 87% of statistical value). We think it’s important that national statistical institutes and Eurostat share best practices and – if viable – coordinate the process of compiling vessel related statistics for better results.

Based on analysis in balance of payments statistics, Finland has not had significant transactions during the period in question. However, it is foreseen that the fleet is going to be renewed, which implies possibly higher trade values in the nearest future. In other Nordic countries, as well as e.g. in Netherlands, the trade in vessels represent much bigger share of GDP in total. Finnish companies are involved to the global maritime business more as builders of vessels rather than owners/operators of vessels.

Introduction

The purpose of this case study is to characterize the process of recording the trade in aircraft and discuss the issues regarding the international trade in aircraft that have been recognized in Statistics Finland. The standing point of this project is the perspective taken from the point of view of Finnish economy. Since there are major actors in aircraft business in Finnish airplane industry, this is a relevant matter to the System of National Accounts (SNA) in Finland. This documentary focuses mainly on the processing of the aircraft trade in the annual national accounts (NA) and the balance of payments (BOP).

In Finland, balance of payments is independent statistics and has its own releases, but it is largely integrated into national accounts. There are similarities in concepts and methodological approaches.

The production accounts under national accounts produce the statistics of gross domestic product (GDP). The gross national income (GNI) is derived from GDP by adding employers’ social contributions, taxes on production and imports, subsidies, distributed income of corporations, reinvested profits from direct investments, property income attributed to insurance policy holders and rents paid on land paid to abroad from Finland to the GDP. Similarly, the same items paid from Finland to abroad must be subtracted.

In compliance with ESA 2010 (paragraph 20.291), transactions that occur between resident units and international or supranational organizations are classified to the rest of the world sector. The transactions between Finland and other countries are congruent in the National Accounts with the Balance of Payments excluding indirectly measured financial intermediation services [7]. In Finland, balance of payments is linked to national accounts through the rest of the world sector (S.2) and the balance of resources.

Chapter 2.2 shortly presents the general guidelines of international manuals with the respect to international trade in aircraft. Subchapters investigates the definition of economic ownership based on SNA2008 and the ESA 2010 and discusses the relation between various leasing agreements and the change of economic ownership. Further, Chapter 2.3 presents the main data sources relevant to the National Accounts in recording trade in aircraft. Chapter 2.4 presents the country specific cases of
trade. Chapter 2.5 shows the results and summarizes the ‘Aircraft’-part of the project.

**International guidelines of recording trade in aircraft**

With guidance of the 2008 SNA, a recognition of changes in ownership in all cases regarding international trade is required. The 2008 SNA says ‘There are no longer any exceptions to the recording basis of the change of economic ownership.’ (2008 SNA paragraph 26.21). That is that, the international trade in goods and services or financial assets or other natural resources must be treated consistently based on changes of economic ownership. As defined in the 2008 SNA ‘the time of recording of the acquisition of goods is the moment when the economic ownership changes hands’ (see paragraph 3.169). In compliance with the 2008 SNA, the new European System of National and Regional Accounts (ESA 2010) have also adopted the method of recording trade based on economic ownership. Also, the Balance of Payments and International Investment Position Manual 2009 (BPM6) used by balance of payments has adopted the same principles. In Finland, the implementation of ESA 2010 and the BPM6 was realized in 2014.

Finnish customs, which is one of the main sources of the data for national accounts, have complied with these principles of recording trade based on economic ownership with accordance to ESA 2010 and Compilers guide on European statistics on international trade in goods (2017) since 2010. All manuals are relevant in handling the trade in aircraft.

In cases of aircraft, the trade is not always straightforward. In most of the cases, the aircraft does not cross the frontier of the country, which has bought the aircraft. It frequently occurs, that the airplane is delivered directly from the vendor to the third country without crossing through the country that has originally purchased it. However, the trade in aircraft is primarily recorded by national customs. Sometimes the international and national registers of aircraft may also be used, but this is not the case in Finland. Additionally, countries might also have their own inquiries for gathering information on international trade in goods and services.

Further, the change of economic ownership is determined and the relations of different lease agreements to change of economic ownership are investigated.

**Change of economic ownership**

There are two types of ownership defined by the 2008 SNA: the legal ownership and the economic ownership. Every entity has both a legal owner and an economic owner. In the majority of the situations, the legal and the economic owner are the same. In situations, where the legal owner is not the same as economic owner, the legal owner has handed responsibility for the risks involved in engaging in an economic activity to the economic owner along with associated benefits of this activity (2008 SNA paragraph 10.6).

The legal owner of entities is entitled in law and sustainable under the law to claim the benefits associated with the entities. The legal owner is usually an institutional unit. The entities can be such as goods and services, natural resources, financial assets and liabilities. The economic owner of such entities is the institutional unit entitled to claim the benefits associated with the use of the entity in question in the course of an economic activity by virtue of accepting the associated risks (2008 SNA paragraph 10.5).

ESA 2010 paragraph 7.17 further notifies, that an entity would be regarded as the economic owner if:

- The entity accepts all or most of the operating risks (losses) related to the use (operation) of the aircraft and receives all or most of the economic benefits (profits) from the use (operation) of the ship/aircraft (Commission Regulation (EC) No 1982/2004, Art. 17(1)(c); Commission Regulation (EU) No 113/2010, Art. 19(1)(c).
- The entity is responsible to provide (pay for) repair and maintenance of the ship/aircraft (ESA95, Annex II, paragraph 3; ESA 2010, paragraph 15.09 and paragraph 15.13).
- The entity has responsibility to replace the ship/aircraft in the event of a serious and prolonged

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There are certain issues related to using different registers. All countries do not necessarily have national aircraft and ship registers. Some countries might not use existing registers for statistical purposes. Further, the registers might not cover all transactions between residents and non-residents, or might not be sufficiently updated, or the information might not be suitable or adequate for use. In particular, the registers might contain information on the legal owner while it is information on the economic ownership that is required. Therefore, in addition to registers, countries might have to consider using additional sources such as accounts of companies or reviewing leasing contracts to establish economic ownership.
breakdown (ESA 2010 paragraph 15.11).

- The ship/aircraft is leased by the entity from a purely financial intermediary, even if called an aircraft or ship leasing company (ESA 2010 paragraph 15.15 and paragraph 15.19).
- The entity leases the ship/aircraft for the major part of its economic life.
- The entity has the unilateral right to terminate the lease contract.
- The entity leases the ship/aircraft so that the present value of the lease payments amounts to the fair value of the ship/aircraft at the inception of the lease.
- The entity has the option to purchase the ship/aircraft at the end of the lease period at a price that is lower than the fair value.
- The entity uses ships/aircraft in its main activity.

The classic example presented in many manuals (e.g. the 2008 SNA and the BPM6) is the case of a bank (a financial institution) owning a piece of equipment e.g. aircraft. The bank is the legal owner of the aircraft, since it has bought the aircraft. It has the legal right to the aircraft. When the aircraft company leases the airplane from the bank under the financial lease, the legal ownership is not transferred but, however, the economic ownership, is. The airplane company is entitled to claim the income from the business activity related to the aircraft but is also responsible for the risks regarding operating the plane.

The agreement of ‘sell and leaseback’ is commonly used procedure in international trade in aircraft. There are also many examples of such practice in aircraft trade in Finland. In the ‘sell and leaseback’ agreement legal unit owning the aircraft, firstly sells it to a financial investor and then immediately leases it back. The legal ownership is, thus, transferred to the financial investor. However, it depends on the lease agreement, if the economic ownership is transferred or not to the lessee. Thus, different lease concepts are closely related to the change of economic ownership.

Leasing agreements and determination of change in economic ownership

Commonly, in the case of aircraft trade, the operations used to acquire the aircraft are either self-financed or leasing solutions. If the aircraft is bought with own capital of an institutional unit, recording of trade is rather straightforward. The legal and economic ownership are both transferred to a new owner; e.g. Finnish y purchases a new aircraft from another country without any leasing arrangements. The legal and economic ownerships are both transferred to Finland.

There are two types of leasing arrangements used in trade related to aircraft: the operating lease and the financial lease. The major difference between these two is the transition of the economic ownership. However, there may be different specifications of diverse financing solutions and combinations of financing instruments. In such specifications, each option should be considered as its own matter, investigated and handled in the best manner with respect to guidelines of the 2008 SNA, the ESA 2010 and other cross-European manuals (e.g. the BPM6).

- Operating lease in trade in aircraft

According to the BPM6 in the standard operating lease situation, the legal and economic ownerships are not transferred to the lessee; i.e. the lessee bares only the costs of using the aircraft, which can be compared to the rent. The legal and economic ownerships stay with the original owner. If the domestic firm rents e.g. a plane from the abroad, there must not be a trade transaction and a record at the customs.

By this definition of operating lease, in the simplest scenario, a resident airline company leases an aircraft from another county with operational lease and this action is seeing as ‘rental’ by national accounts. The interpretation is as the resident company would pay a rent to non-resident company (be it another Airline Company either a financial institution).

- Financial lease in trade in aircraft

When an aircraft trade is financed by financial lease, the auditing is done in a different way. It is only in the case of financial leasing that a change of economic ownership takes place. Since the change of economic ownership occurs, the aircraft must be recorded in the customs and treated as formation of domestic capital stock (investment) in the annual national accounts. However, the legal ownership remains still in the possession of the lessor, but it is the economic ownership, which determines the
recording of the transactions related to aircraft trade.

**Data sources**

Data on economic ownership and changes in economic ownership are essential to the compilation of the macroeconomic accounts such as national accounts and balance of payments. There are few different sources for data on aircraft in national accounts and balance of payments in Finland.

- Finnish customs

The main source for data on international trade in goods is Finnish customs. The customs data is utilized in the Balance of Payments for statistics of international trade in goods and services. Also, on the basis of this data, the benchmark for Merchandise Trade is set.

Prior the new method based on changes in economic ownership, the statistics of trade were compiled on basis of Intrastat Statistical Manual (upon the year 2009). The import/export occasions were recorded as follows:

‘Statistics of ships and aircraft are subject to change in ownership. Ships and aircraft purchased from another state to Finland, as well, as ships and aircraft registered to Finland shall be registered as imports in the Intrastat declaration, when the trade has taken place. Correspondingly, ships and aircraft sold to another country, as well as, the ones from the Finnish Register must be reported as exports in the Intrastat declaration.’

According to the change in the international guidance on international trade, the customs of Finland adopted the new methods. ‘The guide that Finnish customs follow closely is Compilers guide on European statistics on international trade in goods (2017 edition).’ The manual sets out an internationally agreed framework for the compilation and reporting of statistics of international trade.

In the manual, there is a Chapter (Chapter 3.3) that particularly focuses on trade in vessels and aircraft. The terms of change in economic ownership, different tools to identify the economic owner, decision trees based on changes and questions related to including aircraft in the statistics are discussed in detail.

From the year 2010 onward, the international trade in aircraft is reported as follows:

‘Ships and aircraft are recorded when their economic ownership changes. In this case, no physical crossing of the Finnish border is required. The statistical declaration shall also indicate the ships and aircraft that are imported and exported for processing as well as their return after processing. Processing refers, for example, to conversion, refurbishment or renewal. Economic ownership refers to the right to apply for benefits related to the use of ships or aircraft in the course of economic activity, while at the same time accepting the risks associated with the operation. On the declaration, for exports, the country of destination shall be determined as the country in which the institutional unit, which obtains the economic ownership, is located; for imports, the country of dispatch is the country in which the company that transfers the economic ownership is situated.’

In Finland, there exists also a direct communication channel between the (annual) national accounts and the customs of Finland. In course of this project, several meetings had been arranged. Under these meetings, the topics of coherent methods and interpretations of different financing solutions have been discussed. National accounts in Finland and Finnish customs have a mutual, secure, online workspace. The annual data on aircraft trade is shared through this portal. The data contains all the reports relating to international trade in aircraft. However, not all of these transactions are approved to the aircraft statistics. Only the transactions that comply with the guidelines of the ESA 2010 regarding the change in economic ownership are included. Regarding aircraft, the National Accounts inspects the data from customs for the revisions and check that the annual records are consistent with the framework provided by ESA 2010; e.g. that different leasing agreements are treated in line with interpretation of national accounts and that all the records are orthodox.

An effective co-operation between the parties appears also in the way, that Finnish customs have released the by country data regarding the trade in aircraft. This data contains information about imports and exports. That is that if a particular aircraft was bought from country A, it is seen in this customs data as export from country A and as import for Finland. Combined with the first data described earlier on, each transaction, where the change in economic ownership had occurred, can be tracked by value of an aircraft and the transaction can be followed between the participating countries. The data can be drilled down to the level of registration number of a particular aircraft. In this way, the substantial transactions between countries that appear as imports and exports are
supervised. The transaction regarding aircraft trade occurring in the period 2015–2017 have been recorded properly. There have not been any inconsistencies, yet, regarding the trade entries. That is that, if the change of economic ownership had taken place, the aircraft had also been recorded as export for another party and as import for the other one (and vice versa).

This procedure implies that there must be coherence in how the data are handled and requires uniform comprehension, how different financing methods are treated. If there are some differences in interpretation of distinctive financing methods and various ways of recording them in separate data sources, such cases must to be given special attention. There is one such example case, which has been detected in annual accounts in Finland. This matter is discussed further under paragraph 3.3. It must be, that even such complex and unordinary cases represent in the best way possible the common interpretations provided by international manuals and compliance guides.

**Own inquiries of Statistics Finland**

The second source for data for the aircraft related statistics are the own inquiries of International trade in goods and services statistics. In general, International trade in goods and services (ITGS) is part of the current account, so the statistics form part of Finland’s balance of payments. The data are also used to produce statistics for the rest of the world sector, which creates a link to the National Accounts.

Statistics of International trade in goods and services describe exports and imports of goods and services with a broad classification of products and areas. The statistics describe the entire international trade and form a link between goods trade according to the IMTS manual (International Merchandise Trade Statistics) published by Finnish Customs and the BPM6 published by Statistics Finland.

Data on International trade in services and international flows of goods are collected from all enterprises known to have significant international trade in services or sales of goods abroad. A random sample is drawn from smaller enterprises. The data is collected on quarterly and annual basis. The target population for the inquiry is drawn from Statistics Finland’s Business Register.

The own inquiry\(^{(58)}\) of statistics of International trade in goods and services is very important source of information. In case of aircraft, this is the only source from, which the information about the operational lease is gathered. This inquiry has special predetermined lot, where the resident firm is supposed to answer, if it has operational lease agreement with an international lessor.

**Structural business statistics, financial statements and financial lease statistics**

To compile the production and income statistics national accounts use the structural business and financial statement statistics as the data source. The structural business and financial statement statistics describe enterprises operating in Finland. The statistics comprise industry–specific data on the number of enterprises, personnel, financial statements and itemization of turnover and expenditure. The data on enterprises’ financial statements describe the formation of profit, profitability and balance sheet structure in different industries. The examined variables are profit and loss account and balance sheet data, as well as, the parameters calculated from them.

The data for this inquiry is collected partly direct from enterprises and partly by utilizing the Tax Administration’s business taxation data. All enterprises employing at least 50 persons are included in the direct collection of additional data on enterprises’ profit and loss accounts and balance sheets. In addition, enterprises employing 10 to 49 persons have been drawn into the inquiry by random sampling. The inquiry also comprises some enterprises employing fewer than ten persons and all local government enterprises. The profit and loss account and balance sheet data of smaller enterprises and non-respondent enterprises are derived from administrative files and other data are imputed by exploiting data obtained from administrative files and from Statistics Finland’s inquiries. The following inquiries are e.g. used as data collections for these statistics: Business Register inquiry for multi-establishment enterprises, Business Register inquiry for single-establishment enterprises, financial statements inquiry for enterprises (TILKES\(^{(59)}\)) and Inquiry on establishment structure and personnel.

The variable of interest for national accounts, is the one, which provides information about the value of expenditure spent by a company on leasing. The financial statement inquiry defines the leasing rents as follows: ‘An enterprise can acquire fixed assets by direct or financial leasing. In a direct leasing

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\(^{(58)}\) See the Annex to access the full pdf-format inquiry.

\(^{(59)}\) The direct accesses to the inquiry in pdf-format can be found in the Annex.
contract, the enterprise renting out a machine makes a contract directly with the enterprise using that machine. In a financial leasing contract, the enterprise needing the machine makes a contract with a financing enterprise, which buys the machine and rents it out to the enterprise needing it. Rent expenses from fixed asset commodities rented by the enterprise with leasing contracts are reported under this item.'

The variable of the financial statement statistics describing the leasing rents contains all kinds of the leasing expenditure; i.e. the amount of leasing arising from this variable is an aggregate containing any leasing agreements and derivatives of them. In the annual national accounts, the financial lease and the operational lease – and their derivatives – are treated differently (ESA 2010, Chapter 15 and paragraphs 3.98 and 3.90). The national accounts in Finland consider only the operational lease as a part of intermediate consumption. By nature of financial lease, national accounts consider it as the formation of gross fixed capital stock. Thus, the aggregate measure of leasing rents must be excised from the financial lease leaving only the amount of operational lease to the intermediate consumption.

The amount to be removed arises from the inquiry of financial lease. The statistics of financial leasing contain data by sector, industry and object on the financial leasing activities of credit institutions and other lessors. However, the financial lease inquiry includes only the domestic actors; i.e. this inquiry includes the information of the financial leasing granted by resident financial institutions. The financial lease inquiry gathers data on more aggregated (NACE Rev. 2 the first level industry(60)) level than the publications of national accounts are (NACE Rev.2 the second or third level; division and group level). The amount of deductible share of financial lease is then weighted and allocated accordingly to a more detailed industry level. Since this method is rather unsophisticated and mechanical, the problem occurs for some industries, that the deductible amount of financial lease is greater than the original amount. These industries are separated and for them the lease expenditure is equated to zero. The same amount is reallocation to the other industries, which are expected to have greater leasing expenditure, such as the industry 51 – Air transport.

One very important matter stem from the need to include only certain entries into the intermediate input in national accounts. In case of aircraft, there exist financial solutions, which are treated individually under distinct accounting legislations. This is reflected as different handling methods in national accounts and the data source statistics. One of such cases identified is JOLCO (Japanese Operating Lease with Call Option) financing. The differences in treatments and variation occurring from that is further described above.

9.10.3 Summary

The data provided by customs are, generally, important for capturing the flows in the international trade in goods. The customs data form a vital base for achieving information about the aircraft trade for balance of payments and national accounts. In Finland, the balance of payments and (annual) the national accounts are linked through the contribution of the rest of the world sector and the gross fixed capital formation aspect, respectively. Based on this link, the flows of domestic gross capital formation are indirectly related to the data incoming from the customs. That is that, if the benchmark for international merchandise trade is taken from the customs, also the flows of capital stocks must be leveled to this benchmark in annual accounts.

Nonetheless, the own inquiry of statistics of International trade in goods and services, especially the services-aspect, is a very important source, as well. It is the only source that provides the data on operational lease. If it is the case, that a particular aircraft is reported to customs and the additional information indicates that the aircraft is financed with operational lease, this must match to the information gathered by the statistics of International trade.

The structural business and financial statement statistics and the statistics of the Register of Enterprises and Establishments are the fundamental sources for production accounts. The Tax Administration's business taxation data is also utilized. The annual values of turnover, costs and the breakdown of the income statement variables form the basis for production accounts. Several

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(60) According to the NACE Regulations, the first level consists of headings identified by an alphabetic code (sections). The same Regulations define that second and third levels consist of headings a two-digit numerical code (divisions) and three-digit numerical codes (groups), respectively.
complementary inquiries are used to structure the entity.

**9.10.4 Treatment of aircraft in the Finnish national accounts**

At the time point, when this project was launched, the information on the trade of 2016 was available and it was the most noteworthy, one-year-delivery in the aircraft trade in Finland. There was also considerable diversity in the methods and means to finance the aircraft. For that reason, the year 2016 was chosen to be the representative year for the project.

The industry ‘51 – Air transport’ category includes air traffic and business opportunities related to traffic and the transport of goods. The hire of aerial vehicles and the operations of airline sales offices are also included. The size of the industry measured by share of GDP is below 0.5%. In period 2014–2016 the share was 0.3%, but in the year 2017 the share has slightly risen, being around 0.4%. Measured by total turnover, the industry 51 forms around 1% of total turnover in the economy during the years 2014–2017. In the year 2016, the turnover of industry 51 was EUR 2.6 billion. The percentage share of assets in total was 0.3% between the years 2014–2016 and 0.5% in the year 2017. In the year 2016, the value of total assets of the industry 2016 was EUR 3.1 billion. Between years 2014–2017 N113 – Machinery, equipment and transport equipment in gross capital formation formed 1–3% of the value of total economy. In the year 2016, the value of the asset N113 was EUR 317 million, when the total value in the whole economy was EUR 10.7 billion.

The years 2015–2017 have been exceptional regarding the aircraft trade, since one of the biggest Airline Companies in Finland had announced to be renewing their aircraft fleet and to be purchasing nineteen new aircraft during the period of 2015–2023. The majority of the transactions took place during the years 2016 and 2017. By the announcement of the company itself, it has been clarified that three aircraft of model Airbus A350 have been delivered during the year 2015. However, since the financing arrangements took place in the first quarter of the next year, the aircraft was included to the statistics in the national accounts and customs to the statistical year 2016. By the end of 2016, altogether seven aircraft of the same model were recorded. In the year 2015 there were two occurrences of A350 aircraft in the Finnish economy. In 2017, four aircraft were traded, resulting in total amount of eleven aircraft by the end of 2017. Eight more aircraft are still to be delivered by the end of the year 2022 (amounting to nineteen aircraft). Since there has been extra activity in aircraft trading and these years diverge from regular trade years (before 2015), it has been especially important for Finland to identify the transaction flows and economic activity related to these new purchases and to record them correctly.

On average, between years 2015–2017 there have been around 23 aircraft related transactions reported to the customs. However, the change of economic ownership has occurred on average in 9 of these transactions. In 2016 there were 8 transactions in, which the change of economic ownership took place (see Table 36: Description of activities in industry 51 in the year 2016). Some of the transactions, which appear in the customs but are not included to the statistics are the ones, where the aircraft are just passing by through Finland on their return way to a third country. Other are such transactions, where the aircraft are leased without a change of economic ownership.

Several different cases have been identified by the National Accounts regarding the trade in aircraft. Each case has been studied separately in collaboration with experts from the customs of Finland as national customs is one of the major data sources for the National Accounts.

**Case study on a Finnish airline company purchasing a self–financed aircraft from another country**

This is the most simplified design. Also, in the large perspective, this has not been the most common practice for aircraft trade in Finland. During the period 2015–2018, there were four recorded cases, where the aircraft purchase was self-financed, and the ownership moved straightforwardly to Finland. For example, Finnish company purchases an aircraft from France with no additional financing and without leasing options. In this case, economic and legal ownership transfer straightforwardly to Finland.

Based on change in economic ownership, the aircraft is recorded in customs as import. In the 2008 SNA in Finland, the statistics of international trade in goods and services consider the transaction as an import (P.71), as well. Again, the connection to annual national accounts is created through the rest of the world sector. As determined by sequence of accounts in the 2008 SNA, entries for imports and exports form part of the goods and services account. Exports are shown as uses of the rest of the
world and imports as resources from the rest of the world. Respectively, affecting the demand and supply sides of the equity.

According to international guidelines of ESA 2010, there is an offsetting effect as the annual national accounts consider the aircraft as part of the capital stock. (Chapter 3) That is, to balance the supply and demand, the annual national accounts of Finland include the movements in aircraft trade in gross domestic fixed capital formation (investment, P.51). The import of aircraft affects the supply side and, when the aircraft is recorded to capital stock, it balances the demand side.

There is no significant aircraft building industry in Finland. Based on that, there are no substantial export of manufactured aircraft from Finland. The aircraft exports are, as well, not of a great magnitude from the point of view of Finnish economy. The export (P61), that are recorded, occur mainly in the cases, when a Finnish Airline Company sells an old plane back to the country of origin or to some other location for the disposal. Another option is that, in the case of financial lease, the economic ownership changes, if then, the aircraft needs to be returned to the country of origin, the transaction is recorded as export and the value of this transaction equals to the depreciated, residual value of an aircraft. The value of returnable aircraft varies in the range of approximately 10–20% of the original purchase value. Such returns are handled in the National Accounts as imports balanced by a negative flow of the same size to gross domestic fixed capital formation (P.51) in annual national accounts.

**Case study on a Finnish airline company leasing an aircraft**

The Case 2 concerns the contingency, where resident Airline Company leases an aircraft for use. There were no recorded cases of pure financial leasing; that is the case of financial leasing without prior buy--sell back transactions. Yet, there were 17 reported transactions related to operating lease during the period of 2015–2017. There is no change in economic ownership related to this activity, thus, the transactions are just reported at customs but is not recorded in the statistics. These transactions are not considered to be realized imports and, hence, are not included to Imports of Goods and Services in national accounts.

The data on operating lease transactions come from the reports of the Finnish customs and from the own inquiry of Statistics Finland. In national accounts, the statistics of the flows of operating lease regarding the aircraft leasing are compiled in the statistics of international trade in goods and services in balance of payments. Even though, the cases of operating lease are not included to the statistics by the customs, in the National Accounts in Finland these flows are handled as expenditure and are recorded by the statistics of international trade in goods and services. In this statistics the correct slot for this kind of activity is ‘SJ33[61] – Operating leasing services’, which includes leasing (rental) and charter of ships, aircraft and transportation equipment, such as railway cars, containers and rigs without operators or crew (dry lease) (http://tilastokeskus.fi/keruu/paul/files/ohje_en.pdf).

Sometimes, there exists an inconsistency between reported information. For example, a company reports to the customs that it has leased an aircraft with operating lease and nature of the lease is ‘dry lease’, which excludes the e.g. the flight crew. It is reasonable to believe that this is mostly the case in Finland. The data from annual reports and financial statements supplemented by previous experience of the ways the companies operate support the ‘dry lease’ statement. The information is also to be found reliable, since the experts from Finnish customs are able to inquire about the details of the transactions directly from the companies themselves. However, in the statistics of international trade in goods and services the same firm may select an opposing slot for the same transaction.

In the case of aircraft, some companies may incorrectly choose the slot ‘3320 – Service activities incidental to air transportation’. In turn, this slot includes the renting of ships, aircraft or other transport equipment with crew (time charter with crew) and other activities such as air traffic control and cleaning of transport equipment in ports and airports. It is possible that the resident company has different activities but, to ensure the consistency, it is very important that the activities are assigned to the correct slots. Especially, when the company is able to separate the activities and define and match the different types of activities it practices.

In circumstances when such inconsistencies occur, the experts from relevant units study the case firm. If necessary, the company itself is contacted and asked for more specifications of their activities. If the economic flows of the firm are significant and there is a suspicion that the firm has answered incorrectly, also in this case the firm is contacted. Sometimes, meetings with the firms may take place.

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[61] A330 – Operating leasing services.
and the specific instructions are given by the experts of Statistics Finland. This is done to ensure the consistency in the future flows and the coherence between different statistics.

**Case study on a Finnish airline company using a (buy-) sell and leaseback option**

As noted by IMTS 2010, another frequent leasing agreement for aircraft trade is sale and leaseback. This option appears to be frequently used in Finland as well. IMTS 2010 describes the sale and leaseback option as follows: Under this agreement, an airline would sell an aircraft to a financial investor under the agreement to rent it back immediately. Most of the time, the sale and leaseback agreement amounts to an operating lease, which means the initial sale must be recorded as a trade transaction if it takes place between a resident and non-resident. However, there might be also cases in which the leasing agreement that follows the sale has to be viewed as a financial lease; hence, no sale or goods transaction is to be recorded, as the seller gives up only his legal but not his economic ownership.

For example, the cases of aircraft trade recorded in Finland during the statistical year 2016 are invariably the buy- sell and leaseback option using the financial leasing. The processing the aircraft in such situation proceeds as follows:

- Firstly, Finland purchases an aircraft from another country, say France. Such cases have been reported in customs of Finland and the information relating to this transaction has been given by the company itself in its annual report. The first transaction is seen as import of an aircraft to Finland, although the aircraft does not physically move from France to Finland. It the first transaction the change of economic ownership occurs. This trade is recorded by the customs and is realized event.

- Almost simultaneously, after the purchase of the aircraft, Finnish resident company sells it to a financial investor in another country. In case of Finland, some of aircraft have been sold to the investors in Japan and Ireland. The leasing agreement, which binds the Airline Company to lease back the aircraft, is specified to be financial leasing.

- In case of financial leasing, the economic ownership is transferred back to Finland. As sell and leaseback events occur almost at the same time, it has been considered that after the original purchase from France, when the economic ownership is firstly transferred to Finland, there is no change in economic ownership and Finland remains the economic owner of the aircraft. Hence, the trade between the lessee (the resident Airline Company) and the lessor (non-resident leasing company) is not recorded by the customs as export (when the aircraft is sold to the lessor) and import (when the aircraft is leased back).

In national accounts, the first transaction is seen as import (P.71) of an aircraft, but the other two events are not considered to be economic transactions since, after the import, the economic owner of an aircraft remains to be Finland no matter where the financial leasing is obtained. The balancing item for the supply occurring from import, is the investment (P.51) on the demand side.

In theory, the customs get the declaration for three transactions but only one is included to the statistics. In national accounts, the whole event of buy-sell and leaseback occurrence is seen as two records to the accounts: first, the import (P.71, R (resource)) of an aircraft and, the second, - balancing the demand to the supply – is the record to the gross capital formation (P.51, K (use)).
Country cases: an overview of national experience with statistical recording of sea and air transport

9.10.5 Case study: Japanese Operating Lease with Call Option

Interpretation of JOLCO and treatment in national accounts

In Finland, there were three JOLCO finance cases. All three cases occurred during the year 2016. Three Airbus A350 aircraft were financed with JOLCO arrangements. The total value of aircraft was approximately EUR 400 million. There were no recorded JOLCO cases prior or after 2016.

Japanese Operating Lease with Call Option (JOLCO) is an investment product that provides Japanese investors with depreciation allowances that can be used to offset otherwise taxable profits and airlines with 100% financing at an attractive equity IRR. The call option, which is usually ten years into the lease term provides the airline with an ability to re-acquire the aircraft and the investor with an exit that avoids a remarketing event at lease expiry. The growing trend in investments into JOLCO structures, particularly aircraft related JOLCOs, has been detected since 2011. Under the course of this project, it appeared that, despite its name, JOLCO can be treated as either as derivative of operational or financial lease depending on the legislation rules that are used.
Finnish customs and national accounts, treat JOLCO lease under the International Financial Reporting Standards (IFRS). Under IFRS, and, as stated by the Finnish airline company in its own financial statement, the JOLCO lease is treated as loan and the aircraft is treated as it is owned by the company.

The standard financial leasing cases are treated in national accounts according to standards of ESA 2010 paragraph 3.98, 3.90 and Chapter 15 – if the economic ownership and most of the profits and the risks of business activity are transferred to the lessee, the lease agreement is to be treated as financial leasing. Financial leasing is not an expense but is seen as an increase in gross capital formation.

The variable P22_148, which indicates the amount of leasing expenses during the statistical year, includes both leasing types: financial and operational. This is due to finance accounting legislation (FAS) standards, which provides companies the freedom to choose whether financial lease is activated to the balance sheet or treated as an expense. The production accounts exploit the financial leasing inquiry to acquire amount of financial leasing per industry that is then deducted from the P22_148 variable and, respectively, added to gross capital formation account as increase to machinery and equipment.

In industry 51, there is one consolidated corporation, which dominates the flows of the whole industry. However, the interactions of the companies within this group are complex.

Based on the available information, it was extrapolated, that one firm, firm A, in this consolidate corporation is responsible for financing the aircraft for other companies of this group. As the leasing agreements appeared to be strictly occurring within the consolidated corporation, the value of these domestic transactions have been deducted from the output and the intermediate input of the industry. If there are inconsistencies regarding declaration of JOLCO and/or financial leasing, this correction is sufficient to correct them on the aggregate level.

Since there is great uncertainty about the flows and interactions presented in the financial statements of the companies (these are explained further on), the business and financial statement statistics could not be relied on of capturing the gross capital formation from the entries in the balance sheets. For gross capital formation of the JOLCO financed aircraft national accounts conjoined the values of entries gathered from the customs.

To conclude, based on the inference of the above, national accounts and the customs of Finland have interpreted that JOLCO loans are to be handled in a similar manner as the financial leases, since there is transfer of economic ownership and substantial part of the risks and rewards are transferred to Finland. Deduction is made to intermediate input and corresponding amount is added to gross capital formation.

**Challenges**

In case of JOLCO, the fundamental contract details define, if the lease is treated as financial or operational. Differences in in how the legislations, such as FAS and IFRS, treat specific agreements contribute to this matter. The details of the agreements are, frequently, not available for public. Reporting levels can be on more aggregated level than the desired piece of knowledge. In Finland, the best source to discover the nature of the agreements, is the financial statement of the company itself and the information gathered by customs.

The information about lease types, amount of aircraft owned by the corporation and other related specifics are found in the financial statement. Yet, information appearing on the financial statement of the firm A diverges from the one presented in the financial statement of the consolidated group.

All the trails of the transactions could not be verified. For example, in the IFRS based statement of the consolidated group, JOLCO aircraft appear on the balance sheet and are mentioned to be ‘own machinery’. However, in the FAS statement of the company A, the JOLCO aircraft are referred as if they are rental. After thoroughly investigating the financial flows, income statements and the balance sheets of the consolidated company and the company A, no clear conclusion could be made about the differences. More knowledge is required, specifically the exact justification behind the accounting entries and the accounting interactions within the companies of the consolidated group.

From the custom entries, it is seen, that there are now pure financial leasing entries without ‘sale and leaseback’ arrangements. In the financial statement of the consolidated group it is, however, mentioned that the group has seven financial leased aircraft. These could be the aircraft that were leased prior the year 2015. The closer co-operation with customs started around that time. For that
reason, the National Accounts do not have as good information about the prior years (before 2015) as now.

On the IFRS statement the group presents ‘lease agreements for tangible assets, where a substantial part of the risks and rewards of ownership are transferred to the Group, are classified as financial leases. Financial leases are capitalized at the commencement of the lease term at the lower of the fair value of the leased property and the present value of the minimum lease payments. A corresponding sum is recognized as a financial lease liability in the interest-bearing liabilities. The lease payments are allocated between interest expenses and the reduction of the outstanding liability. Assets acquired under financial lease arrangements are depreciated over the shorter of the useful life of the asset or the lease term.’

However, if there is sale and leaseback agreement involved, the treatment is different. The group presents ‘If a sale and leaseback transaction results in a financial lease agreement, the difference between the selling price and the carrying amount of the asset sold is deferred and amortized over the lease period. ... Otherwise the sales gain or loss is deferred and amortized over the lease period.’

JOLCO financed aircraft are mentioned to be treated as ‘own machinery’. This would imply that they must be found in the balance sheet of the group. This seems to be the case.

Yet, when the FAS based financial statement of the company A responsible for the financing solutions of the group and who is mentioned to own the aircraft, the full value of aircraft is not recorded to the balance sheet. One possible explanation could be that there is a sale and leaseback arrangement related to each JOLCO financed aircraft. In fact, all the JOLCO cases were related to (buy-) sell and leaseback occasions. The JOLCO is treated as ‘other loan’ and the sales gain or loss is deferred and amortized over the lease period.

In the structural business and financial statement statistics the fixed assets that have completed from work in progress during the accounting period are recorded as decreases and increases under their own commodity type. In 2016, when there were three JOLCO aircraft and one self-financed aircraft, the difference in increases and decreases of the machinery and equipment was almost EUR 100 million negative.

Another possible explanation for divergence, could be that leasing agreements, such as JOLCO are treated differently in the financial statement of the consolidate group and the company A. This case is further investigated in course of this project.

The National Accounts conclude that the accounting procedures of the group and the company A and their interaction have such impact on the entries that the values cannot be straightforwardly applied to the compilation of the production accounts and gross capital formation account. The entries on the IFRS and FAS statements follow complex procedures and involve diverse treatment of leasing agreements.

**Macro level differences in treatment of JOLCO in relevant statistics**

Different interpretations lead to differences regarding accounting entries between the structural business and financial statement statistics and annual accounts.

The statistics of business structure and financial statement comply with FAS legislations. If there are inconsistencies with declaring leasing expenditures, i.e. other firms treat all leasing types as expenditure and other treat financial leasing as investments and report the depreciation, this would create divergence between processing the data in annual national accounts and the source statistics.

On macro perspective, the difference becomes apparent in the levels of operational lease in annual national accounts and the structural business and financial statement statistics. In the production accounts of national accounts, the level of operational lease on industry 51 will be lower than the original amount summed up from all the institutional units from the source statistics.

National accounts treats JOLCO as a financial lease instrument, which must be deducted from the intermediate consumption in production accounts and reallocated to gross capital formation. When assumption is made that there are differences in treatment of leases in different legislation systems, the amount of JOLCO leases must be accounted and reallocated. This would be done additionally to the financial lease deduction, which is based on the financial lease inquiry.

If all the leasing types are treated consistently and there is no JOLCO included to the intermediate input, only the financial lease correction must be made. However, JOLCO financed aircraft are not fully
valued in the balance sheet of company A and, thus, without additional correction to the gross capital formation some of the investments are only partly taken into account.

If all the corporations treat JOLCO consistently, then this is captured by the additional deduction with the respect to company A, mentioned earlier. If there are some inconsistencies in the reporting system, then there may be some amount of JOLCO leases left in the variable, which in the first place is designed to include only operational lease.

**Example 1: The reduction in intermediate consumption**

In production accounts of annual national accounts, the data comes from the structural business and financial statement statistics. The variables in the National Accounts are based on the breakdown of income statement variables. The total output (P1) and the total intermediate consumption (P2) are formed based on the breakdown variables of income statement. The breakdown variable, P22_148, of total intermediate consumption, P2, represents the expenses on operational lease during the current year.

The amount of leasing costs originating from the source statistics represents the whole amount used for leasing by all companies at the particular industry. This variable contains all kinds of leasing and, so, to obtain the part of pure operational lease, the share of financial lease must be deducted from this aggregate amount. Only the operating lease is considered to be part of intermediate consumption.

Say, the original amount of leasing costs from the source statistics in industry 51 is EUR 400 million. The amount of financial lease stems from the financial lease inquiry. The amount of financial lease is properly divided from NACE Rev.2 first level to NACE Rev.2 two- and three-digit levels of annual accounts. Then the correction for the industries, where the reduction causes negative outcomes, is done. The total amount of financial lease, which is deducted from the original amount, consists of the financial lease amount coming from the financial lease inquiry and the correction amount, which is reallocated from the industries with negative values. The amount\(^{(a)}\) of the correction varies annually between EUR 2–5 million (during the years 2013–2016). The total amount of deduction for industry 51 varies from approximately EUR 60–110 million (during the years 2013–2016) (see Table 32). Some other industries, to which the additional amendment was allocated, were e.g. 46 – Wholesale trade, except of motor vehicles and motorcycles, 47 – Retail trade, except of motor vehicles and motorcycles and 494 – Freight transport by road and removal services.

The is no systematic recursion in industries, where the original value of leasing expenses is smaller than the deductible share of financial leasing; for instance, the three most significant industries of such kind in 2016 were 351 – Electric power generation, transmission and distribution, 93 – Sports activities and amusement and recreation activities and 95 – Repair of computers and personal and household goods.

### Table 32: Reduction in intermediate consumption for the air transport industry

<table>
<thead>
<tr>
<th>Industry 51 - Air transport</th>
<th>Source statistics</th>
<th>Financial leasing statistics</th>
<th>Operating leasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>K (use) Intermediate consumption</td>
<td>P22-14 8</td>
<td>400</td>
<td>-90</td>
</tr>
</tbody>
</table>

**Source:** Statistics Finland

Note: The amount of leasing expenses and the deductible part is based on average of 4 years. Due to data protection enactment the real values cannot be displayed in this illustration.

In 2016, there were three JOLCO financed aircraft recorded in the statistics. Assume their value was EUR 300 million. JOLCO agreements were made for 12 years. For the simplicity, assume, the interests to be zero. If the case is that under FAS structural business and financial statement statistics treat JOLCO lease as rents per year. Thus, in the source statistics the annual amount of JOLCO rents would equal to 300/12=EUR 25 million. Accordingly, because the annual accounts treat JOLCO differently, this is the amount, which is added to some industries that are assumed to have higher financial lease rate. For these industries the reduction from the aggregate lease variable is higher and this is balanced by the reallocation to the gross capital formation; i.e. the intermediate consumption of these industries decreases by the amount, which is transferred to the gross capital formation.

\(^{(a)}\) This is the amount, which is added to some industries that are assumed to have higher financial lease rate.
the same amount must be, in addition, deducted from P22_148 leasing expenses (see Table 33).

Table 33: Effect of JOLCO on intermediate consumption

<table>
<thead>
<tr>
<th>Industry 51 - Air transport</th>
<th>Source statistics</th>
<th>Financial leasing statistics</th>
<th>JOLCO correction</th>
<th>Operating leasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>K (use) Intermediate consumption</td>
<td>P22-148 Leasing expenses</td>
<td>400</td>
<td>-90</td>
<td>-25</td>
</tr>
</tbody>
</table>

Source: Statistics Finland

There is one difficulty regarding identification of deductible JOLCO amount. From the customs, we know the amount of JOLCO financed aircraft. But if the structural business and financial statement statistics treat JOLCO as expenditure per annum on the income statement, the years will overlap.

The effects in the structural business and financial statement statistics are more far reaching. The correction for JOLCO would have to be made for long consecutive period (12 or more years). In national accounts, JOLCO withdraws during one year as the whole value of aircraft is assigned to the capital formation.

**Micro level differences in JOLCO treatment in relevant statistics**

Other differences occur on micro level in income statement and balance sheet. If in structural business and financial statement statistics consider JOLCO is seen in the variable ‘the other expenses’ as ‘the lease payments’, the JOLCO aircraft are treated as rented. They are not recorded to balance sheet as assets and there is no effect on the depreciation in the income statement during the accounting period.

Table 34: Effect of JOLCO on income statement and Table 35: Balance sheet comparison under FAS and IFRS in different JOLCO treatment present the differences between FAS and IFRS treatment of JOLCO leases. Table 34 projects the differences that occur on income statement. Table 35 presents the changes on the balance sheet. In other words, both tables show, how it is assumed that JOLCO is treated in the source statistics (FAS) and, on the right-hand side, corrected to correspond the effects, if JOLCO was changed to be treated as financial lease – as it is in Finnish customs and the annual National Accounts (IFRS). Due to data protection, the values presented in the tables are not the original ones. However, the annual changes are scaled to reflect the reality.

Following assumptions were made to execute the calculations:

Due to data protection, the values presented in the Table 34 are scaled instead of the original ones. However, the annual changes are scaled to reflect reality.

- Based on the financial statement of Finnish Airline Company the depreciation rate is assumed to be straight-line depreciation with expected economic lifetime of 20 years. The assumed value of JOLCO financed aircraft is, thus, divided by 20 years of expected lifetime. Because JOLCO lease is now treated as rent, the total value of lease is divided on a longer period instead to be addressed to one year. Thus, if JOLCO is changed to be handled as financial lease, also this value must be estimated for the same period.
- Based on customs data and partial information from income statement, JOLCO agreements are assumed to be 12 years. The leasing expenses for the year 2016 are estimated based on this information.
- The changes in treatment are estimated only for the year 2016, since this is the only year, when JOLCO financing has appeared. The year 2015 is assumed to be the same in both cases.

**Effects on the income statement**

The income statement in 2015 and 2016 under the FAS legislation, among the other possible operating lease expenses, also JOLCO lease is included in the amount (EUR 49 million in 2015 and EUR 67 million in 2016). The total intermediate consumption is EUR 89 million and EUR 103 million, respectively. The net value added in 2015 was EUR 65 million and EUR 77 million in 2016.

In this exercise, in the year 2016 JOLCO is now treated as financial lease (under IFRS legislation).
The treatment changes as follows: there is an increase of almost EUR 10 million in ‘planned depreciation and amortization’ (from EUR 40 million in 2015 and to EUR 49 million in 2016). This value is achieved assuming the 20-year life expectancy for the asset. When JOLCO is treated as financial lease, it increases the depreciation for a given accounting year. In the example presented here, the increase is EUR 15 million (34+15= EUR 49 million).

The change in treatment of JOLCO has an effect also on leasing expenses. The leasing expenses will decrease, since JOLCO is not treated as a rent or as an expenditure for a given year. This is seen as the correction that has to be done, if the source statistics would treat JOLCO in the same manner as the annual national accounts. In Table 1, leasing expenses decrease by the amount of total value of leased aircraft (assumed to be EUR 300 million) divided by the lease agreement time (12 years). New value of leasing expenses for the year 2016 would be EUR 42 million, instead of value of EUR 67 million under FAS treatment.

The net contribution of such change depends on the relation of the depreciation and JOLCO leasing. If, however, the economic lifetime would be much longer, say 40 years, ceteris paribus, then the reduction of intermediate consumption would be even greater. In this case, the increase in the net value added would be EUR 19 million compared to the value of the year 2016 under FAS. Then again, if the expectancy would be only 10 years, then the intermediate input would experience a EUR 3 million increase compared to EUR 103 million in 2016 under FAS. The effect on the net value added would be of magnitude of EUR 3 million negative. However, it is reasonable to assume that the life expectancy of aircraft is approximately 20 years. Thus, the net effect on the net value added (profit), in this example, would be positive, EUR 10 million.

Effects on the balance sheet

Table 35 shows, how JOLCO leases are to be treated, if JOLCO was considered a financial lease by the source statistics as well. Withal, the Finnish Airline company states in its financial report that the JOLCO lease are treated as loans and the assets are treated as owned by the company. It follows, that the assumed value of EUR 300 million, is seen in the Assets: Machinery and equipment. The Assets in total increase by the same amount. As in 2015 there were no JOLCO finance aircraft, the effects are seen only in the balance sheet of 2016 and the year 2015 is the same in FAS and IFRS treatments. As the values for the year 2016 change, consequently, the change between years 2015 and 2016 is affected.

Balance sheet equity and liabilities are affected through the changes in current liabilities. That is, total capital and reserves are not affected by the treatment change. However, the part of current liabilities ‘Other creditors’ increases by EUR 300 million. When JOLCO lease is treated as financial lease, it affects the non–current liabilities. The total equity and liabilities equal to total assets in the year 2016 under the IFRS treatment, but the values have changed from the year 2016 under the FAS treatment.

9.10.6 Conclusion

There are few major actors in the industry 51 – Air transport in Finland. The period 2015–2017 have been exceptionally active in terms of aircraft trade in Finland. Thus, this activity is relevant to national accounts. The aircraft trade is followed by national customs, national accounts and the Balance of Payment. The customs data, data from structural business and financial statement statistics, the financial lease inquiry and the own inquiry of international trade in goods and service statistics provide the broad insight on the trade in aircraft.

Four diverge cases were identified in Finland with respect to aircraft trade. First case is simple purchase event. When resident company buys an aircraft from non-resident agent, this is seen in national accounts and customs as import. Economic and legal ownerships are transferred to home country. This generates the supply, which in national accounts is met by according record to the gross capital formation (demand).

There have not been many (nor highly significant) cases of aircraft sale from Finland to other countries. However, the record is just the opposite, and the economic ownership moves from Finland to non-resident firm. The export cases, where related to return of an aircraft to the country of origin (under the agreement, where the change of economic ownership takes place) or to a sale arrangement, where aircraft is sold to non-resident party at a residual value.

The second case is, when the resident company leases the aircraft. In theory, there can be two subcases relevant to this solution- operational leasing and financial leasing agreement. In the former
Country cases: an overview of national experience with statistical recording of sea and air transport

The most relevant case for Finland was the case of (buy-)sell and leaseback. Here the resident company first buys an aircraft from non-resident. The economic ownership transfers to Finland. Then, the resident company sells the aircraft to non-resident financial institution or another financier. The economic ownership transfers to financier. In the third phase, the resident leases the aircraft immediately back. Next, it depends on the type of leasing agreement, does the economic ownership move back to resident or not. If the leasing is done under operational lease, then the resident pays ‘a rent’ for use of the aircraft. This is seen as import of services in the Balance of Payment. In national accounts it is seen as an annual expenditure. The preceding ‘sell’- event is recorded, since the economic ownership moves to non-resident company. With operational lease, the economic ownership does not move back.

If, on the other hand, the leasing agreement is made under financial lease, it means that the economic ownership transfers back to resident. In this case, it is thought as the economic ownership has never left the resident country- in this case Finland. The sell and the leaseback events are not recorded into the statistics, since the economic ownership returns to the resident. The back-and-forth movement of economic ownership is not included into the statistics. If there was a pure case of financial leasing, then this transaction would have to be recorded (e.g. if resident company leases an aircraft directly form a financial institution, which already has the aircraft in its own possession; no prior sell-and leaseback situation).

In this documentary, a special attention has been given to financial solution, where the leaseback event has been acquired with JOLCO- agreement. National accounts treat JOLCO as financial leasing based on the legislation of IFRS and the information that the change of economic ownership takes place. Additional information provided by customs has also pointed out that JOLCO is treated as financial lease. The methods of recording the transactions in Finnish customs and national accounts are congruent. However, in the structural business and financial statement statistics, which is the data source for national accounts, JOLCO may appear differently. If JOLCO is treated under FAS legislation, it allows JOLCO to be handled as operating lease. The micro-effects on the income statement and the balance sheet- and the macro-effects of the change if JOLCO would be treated in the same manner in both cases, are discussed in Chapter Case study: Japanese Operating Lease with Call Option. The results are presented in Table 32: Reduction in intermediate consumption for the air transport industry and Table 33: Effect of JOLCO on intermediate consumption.

There were three JOLCO financed aircraft, which in total have value approximately EUR 400 million. In Finland, there is one consolidated group, which is the leading actor in the industry 51. One company of this group is responsible for is responsible for aircraft ownership and financing. A comprehensive investigation of balance sheets and income statements was made, but clear distinction could not be made, if JOLCO is treated as expenditure, operational lease like instrument, or activated into balance sheet, as financial lease like instrument.

In the IFRS statement of the consolidate group, the JOLCO aircraft are treated as if they were owned by the company. At the same time, it seems to be the case that the JOLCO leases are treated in their own way and are not activated in the same way as the financial leasing. The whole value of JOLCO financed aircraft is not found on the balance sheet of the one company, which is responsible for financing and ownership the aircraft. The company operates under FAS legislation, which, for its own distinct, contributes to the matter. Under FAS all leasing agreements can be treated as expenditures on the income statement or can be seen as assets appearing on the balance sheet and in the depreciation.

It can be the case that JOLCO leases are treated differently under IFRS and FAS, which leads to situation, where the national accounts and the in the structural business and financial statement statistics treat JOLCO differently.

On other hand, it can be the case, that due to accounting practices and complex interactions of the companies in the consolidated group, the exact values of aircraft and their appearance in the financial
statement cannot be traced precisely.

If the JOLCO leases appear in structural business and financial statement as expenses, they are
divided through the lifetime of JOLCO agreements, which are presumably 12 years long. Based on
theoretical concepts of ESA 2010 the deductibles from the intermediate input, such as financial
leasing, reduce the level of operational lease in national accounts compared to the source statistics. If
the JOLCO is treated differently in the source statistics and in national accounts, there may be a need
to deduct some additional amount from the intermediate input in production accounts.

The deduction would consider the operational lease variable. The amount of the correction equals the
total amount of JOLCO financed aircraft value divided by the lifetime of the agreement. The correction
would have to be executed as t+12, t being the first year of detecting JOLCO finance aircraft. If the
value of JOLCO financed aircraft is EUR 300 million in total and the agreement time is 12 years, then
the additional deduction to intermediate input would be EUR 25 million per annum. This deduction
would have to be made annually for as long time as the leasing time expires.

The procedure of deduction financial leases including JOLCO form the income statement decreases
the level of intermediate input and transfers the same amount to gross capital formation.

Currently, as the turnover and costs of the company, which handles the JOLCO transactions (company
A), are deducted from the output and the intermediate input of the industry, in our opinion it takes to
the account possible corrections for JOLCO. The turnover and cost are consolidated, since they occur
strictly within one consolidated group. Since, due to accounting methods, the JOLCO financed aircraft
are not fully transmitted to gross capital formation through the source statistics, they are added there
manually. The valuation of aircraft is done on basis of information coming from customs.

Despite special case of JOLCO, the trade in aircraft in Finland rather straightforwardly follows the latest
guidelines of the ESA 2010. In balance of payments the BPM6 is closely applied. Through the tight
interaction of customs and national accounts also the custom’s international trade manual is familiar
to national accounts. This manual has more specific guidelines and decision-making trees regarding
trade in aircraft, but the general guidelines of the ESA 2010 and the international trade manual are
fully consistent with each other.

Under this project, it seems to be reasonable to conclude that there is a good co-operation within
different national agencies regarding trade in aircraft. The international guidelines of the ESA 2010
and other relevant manual on trade in aircraft are followed as closely as possible. There is consistency
on compiling the statistics and the implementation of the newest standards is being addressed in an
up-to-date manner.

A point of future concern is addressed to the transition from IAS 17 to IFRS 16. Under the new IFRS 16
lessees do not need to classify the lease at its inception and determine whether it is finance or
operating lease. Alleged impacts on the financial report under new treatment are at least that there will
be a shift in the financial metrics for businesses that have a particularly large number of operating
lease (since under new order all operating leases will be capitalized). Financial metrics like asset
turnover, current ratio and operating expenses will likely see a decrease. Conversely, liabilities,
recorded lease assets, EBIT and EBITDA are likely to see an increase. From the point of view of
production accounts and capital flow formation more aligned, impacts from the transition, are that under
IFRS 16 the increase in depreciation and interest will be seen. Also, the expenditure of operating lease
will decline or even vanish completely.

In the future, the links of this change to FAS must be studied and possible changes in income
statements and balance sheets of the companies must be investigated. In addition to the changes that
occur in the source statistics due to the transition there will be effects also on the deduction from the
intermediate input, as well.

The matter of new accounting legislation must be discussed with custom personnel, as well. In the
Compilers guide on European statistics on international trade in goods ‘When the business accounts
are used to decide on the economic owner and the national legislation defines the accounting
standards, in particular those related to leasing arrangements, in line with the substance of IAS 17,
then intention of an entity to include/exclude the vessel/aircraft as an asset in/from its balance sheet
shall indicate that there is the transfer of economic ownership of the vessel/aircraft’ (Chapter 3.3,
paragraph 577). The methods handling the aircraft have been so far consistent within national
accounts and customs. The transition from IAS 17 to IFRS 16 must be further discussed with customs
to ensure that this is the case also in the future.
9.10.7 References

- European System of Accounts ESA 2010

9.10.8 Annex

Box 19: Annual inquiry on international trade in services and international flows of goods


<table>
<thead>
<tr>
<th>Class</th>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>X/M</td>
<td>SA</td>
<td>Manufacturing services on physical inputs owned by others</td>
</tr>
<tr>
<td>X/M</td>
<td>SB</td>
<td>Maintenance and repair services not included elsewhere</td>
</tr>
<tr>
<td>X/M</td>
<td>SJ321</td>
<td>Waste treatment and de-pollution</td>
</tr>
<tr>
<td>X/M</td>
<td>SJ322</td>
<td>Services related to agriculture, forestry and fishing</td>
</tr>
<tr>
<td>X/M</td>
<td>SJ323</td>
<td>Services related to mining, oil and gas extraction</td>
</tr>
<tr>
<td>X/M</td>
<td>SC11</td>
<td>Passenger transport on sea</td>
</tr>
<tr>
<td>X/M</td>
<td>SC12</td>
<td>Freight transport on sea</td>
</tr>
</tbody>
</table>
## Country cases: an overview of national experience with statistical recording of sea and air transport

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X/M</td>
<td><strong>SC13</strong> Sea transport support activities</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC21</strong> Passenger transport by air</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC22</strong> Freight transport by air</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC23</strong> Air transport support activities</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3B1</strong> Passenger on rail</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3B2</strong> Freight on rail</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3B3</strong> Rail transport support activities</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3C1</strong> Passenger on road</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3C2</strong> Freight on road</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3C3</strong> Road transport support activities</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3D1</strong> Passenger on inland waterway</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3D2</strong> Freight on inland waterway</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3D3</strong> Inland waterway transport support activities</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC3G</strong> Other supporting and auxiliary transport services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SC4</strong> Postal and courier services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SG</strong> Financial services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SH1</strong> Franchise and trademark licensing fees</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SH2</strong> User’s licences for R&amp;D outcomes</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SH3</strong> Licences to reproduce and distribute computer software</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SH41</strong> Licences to reproduce and/or distribute audiovisual products</td>
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<tr>
<td>X/M</td>
<td><strong>SH42</strong> Licences to reproduce and/or distribute other products</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SI1</strong> Telecommunications services</td>
</tr>
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<td>X/M</td>
<td><strong>SI21</strong> Computer software</td>
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<td>X/M</td>
<td><strong>SI22</strong> Other computer services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SI31</strong> News agency services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SI32</strong> Other information services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ111</strong> Provision of customised and non-customised R&amp;D services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ1121</strong> Sale of proprietary rights arising from R&amp;D</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ1122</strong> Copyrights arising from R&amp;D</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ1123</strong> Sale of industrial processes and designs (including trade secrets)</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ1124</strong> Sale of other R&amp;D proprietary rights</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ12</strong> Other R&amp;D services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ211</strong> Legal services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ212</strong> Accounting, auditing, bookkeeping and tax consulting services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ213</strong> Business and management consulting and public relations services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ22</strong> Advertising, market research and public opinion polling</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ311</strong> Architectural services</td>
</tr>
<tr>
<td>X/M</td>
<td><strong>SJ312</strong> Engineering services</td>
</tr>
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</table>
Country cases: an overview of national experience with statistical recording of sea and air transport

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X/M</td>
<td>SJ313 Scientific and other technical services</td>
</tr>
<tr>
<td>X/M</td>
<td>SJ33 Operating leasing services</td>
</tr>
<tr>
<td>X/M</td>
<td>SJ34 Trade-related services</td>
</tr>
<tr>
<td>X/M</td>
<td>SJ35 Other business services not included elsewhere</td>
</tr>
<tr>
<td>X/M</td>
<td>SK11 Audiovisual services</td>
</tr>
<tr>
<td>X/M</td>
<td>SK12 Art related services</td>
</tr>
<tr>
<td>X/M</td>
<td>SK21 Health services</td>
</tr>
<tr>
<td>X/M</td>
<td>SK22 Education services</td>
</tr>
<tr>
<td>X/M</td>
<td>SK23 Heritage and recreational services</td>
</tr>
<tr>
<td>X/M</td>
<td>SK24 Other personal services</td>
</tr>
<tr>
<td>G</td>
<td>GA1 Merchanting purchases</td>
</tr>
<tr>
<td>G</td>
<td>GA2 Merchanting sales</td>
</tr>
<tr>
<td>G</td>
<td>GB1 Goods purchased abroad for processing abroad</td>
</tr>
<tr>
<td>G</td>
<td>GB2 Goods sold abroad after processing abroad</td>
</tr>
<tr>
<td>G</td>
<td>GC1 Goods procured in ports</td>
</tr>
<tr>
<td>G</td>
<td>GC2 Goods procured in airports</td>
</tr>
<tr>
<td>G</td>
<td>GC3 Goods procured in other ports</td>
</tr>
<tr>
<td>G</td>
<td>GE1 Project deliveries abroad</td>
</tr>
<tr>
<td>G</td>
<td>GE2 Service and goods costs related to project deliveries abroad</td>
</tr>
<tr>
<td>G</td>
<td>GE3 Project deliveries abroad</td>
</tr>
<tr>
<td>G</td>
<td>SE11 Construction abroad</td>
</tr>
<tr>
<td>G</td>
<td>SE12 Exports of goods from Finland related to construction</td>
</tr>
<tr>
<td>G</td>
<td>SE13 Service and goods costs related to construction abroad</td>
</tr>
<tr>
<td>G</td>
<td>SE2 Construction in Finland</td>
</tr>
</tbody>
</table>

Source: Statistics Finland
Box 20: Financial statements inquiry for enterprises


Table 34: Effect of JOLCO on income statement

Source: Statistics Finland
Table 35: Balance sheet comparison under FAS and IFRS in different JOLCO treatment

<table>
<thead>
<tr>
<th>Balance sheet</th>
<th>FAS 2015</th>
<th>FAS 2016</th>
<th>change %</th>
<th>change EUR</th>
<th>IFRS 2015</th>
<th>IFRS 2016</th>
<th>change %</th>
<th>change EUR</th>
<th>change 2016 - 2015</th>
<th>change %</th>
<th>change EUR</th>
<th>compared to FAS 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>253</td>
<td>248</td>
<td>-2 %</td>
<td>-5</td>
<td>254</td>
<td>248</td>
<td>115 %</td>
<td>293</td>
<td>+300</td>
<td>+300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advance payments</td>
<td>21</td>
<td>37</td>
<td>80 %</td>
<td>17</td>
<td>20</td>
<td>37</td>
<td>82 %</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed assets in securities</td>
<td>15</td>
<td>15</td>
<td>0 %</td>
<td>0</td>
<td>15</td>
<td>15</td>
<td>1 %</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total tangible assets</td>
<td>288</td>
<td>300</td>
<td>4 %</td>
<td>12</td>
<td>290</td>
<td>300</td>
<td>107 %</td>
<td>310</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade debtors</td>
<td>0</td>
<td>1</td>
<td>100 %</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>100 %</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amounts owed by group member companies</td>
<td>21</td>
<td>17</td>
<td>-19 %</td>
<td>-4</td>
<td>21</td>
<td>17</td>
<td>-19 %</td>
<td>-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other debtors</td>
<td>4</td>
<td>4</td>
<td>-7 %</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>-7 %</td>
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<td></td>
<td></td>
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<tr>
<td>Prepayments and accrued income</td>
<td>0</td>
<td>0</td>
<td>- 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>- 0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other financial assets</td>
<td>40</td>
<td>41</td>
<td>2 %</td>
<td>1</td>
<td>40</td>
<td>41</td>
<td>2 %</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>63</td>
<td>-4 %</td>
<td>-2</td>
<td>66</td>
<td>63</td>
<td>-4 %</td>
<td>-2</td>
<td>+300</td>
<td>+300</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>354</td>
<td>363</td>
<td>3 %</td>
<td>9</td>
<td>354</td>
<td>463</td>
<td>87 %</td>
<td>309</td>
<td>+300</td>
<td>+300</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subscribed capital</td>
<td>4</td>
<td>4</td>
<td>0 %</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>0 %</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other reserves</td>
<td>131</td>
<td>129</td>
<td>-2 %</td>
<td>-3</td>
<td>131</td>
<td>129</td>
<td>-2 %</td>
<td>-3</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Retained earnings (loss)</td>
<td>4</td>
<td>15</td>
<td>250 %</td>
<td>10</td>
<td>4</td>
<td>15</td>
<td>250 %</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit/loss for the financial year</td>
<td>10</td>
<td>27</td>
<td>160 %</td>
<td>17</td>
<td>10</td>
<td>27</td>
<td>160 %</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Capital and Reserves</strong></td>
<td>150</td>
<td>174</td>
<td>16 %</td>
<td>25</td>
<td>150</td>
<td>174</td>
<td>16 %</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accumulated appropriations</td>
<td>26</td>
<td>33</td>
<td>27 %</td>
<td>7</td>
<td>26</td>
<td>33</td>
<td>27 %</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade payables</td>
<td>5</td>
<td>15</td>
<td>188 %</td>
<td>10</td>
<td>5</td>
<td>15</td>
<td>188 %</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amounts owed to group member companies</td>
<td>170</td>
<td>136</td>
<td>-20 %</td>
<td>-34</td>
<td>170</td>
<td>136</td>
<td>-20 %</td>
<td>-34</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accruals and deferred income</td>
<td>3</td>
<td>8</td>
<td>66 %</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>66 %</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other creditors</td>
<td>34</td>
<td>30</td>
<td>23 %</td>
<td>6</td>
<td>34</td>
<td>30</td>
<td>23 %</td>
<td>6</td>
<td>+300</td>
<td>+300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current liabilities total</td>
<td>294</td>
<td>189</td>
<td>-8 %</td>
<td>-15</td>
<td>294</td>
<td>189</td>
<td>130 %</td>
<td>284</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current liabilities</td>
<td>175</td>
<td>78</td>
<td>-55 %</td>
<td>-97</td>
<td>175</td>
<td>78</td>
<td>-55 %</td>
<td>-97</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td>29</td>
<td>111</td>
<td>278 %</td>
<td>81</td>
<td>29</td>
<td>111</td>
<td>1304 %</td>
<td>383</td>
<td>+300</td>
<td>+300</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Equity and liabilities</strong></td>
<td>354</td>
<td>363</td>
<td>3 %</td>
<td>9</td>
<td>354</td>
<td>463</td>
<td>87 %</td>
<td>309</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Statistics Finland
**Table 36: Description of activities in industry 51 in the year 2016**

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>Quantity</th>
<th>Comment</th>
<th>Additional info.</th>
<th>Interpretation of lease in the NA</th>
<th>change of econ. owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embraer ERJ 170</td>
<td>2</td>
<td>Sale of an old aircraft to Ireland</td>
<td></td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>Airbus A340</td>
<td>1</td>
<td>Sale of an old aircraft to USA</td>
<td></td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>Airbus A350</td>
<td>3</td>
<td>JOLCO financed aircrafts, bought from France, leased from Japan</td>
<td>sale and leaseback</td>
<td>financial like</td>
<td>yes</td>
</tr>
<tr>
<td>Airbus A350</td>
<td>1</td>
<td>Operating leasing financed aircraft, bought from France, sold to Ireland, leased from Ireland</td>
<td>sale and leaseback</td>
<td>operating</td>
<td>no</td>
</tr>
<tr>
<td>Airbus A350</td>
<td>1</td>
<td>Self-financed aircraft</td>
<td></td>
<td></td>
<td>yes</td>
</tr>
</tbody>
</table>

*Source: Statistics Finland*
9.10.9 Vessels

The water transport industry in Finland (NACE 50)

The size of the water transport industry in Finland is a bit more than 1% of the GDP. The estimated turnover in the water transport industry was round EUR 2.5 billion (see Table 37: Enterprises in the water transport industry (NACE 50) in Finland year 2017) and the assets and liabilities around EUR 3.8 billion, of which value of vessels was EUR 1.7 billion in the year 2017. In Finland, the water transport industry is concentrated to few companies. More than half of personnel and turnover sums up from the three largest companies.

Table 37: Enterprises in the water transport industry (NACE 50) in Finland year 2017

<table>
<thead>
<tr>
<th>Number of persons</th>
<th>Number of enterprises, legal units</th>
<th>Turnover, legal units (1000 euro)</th>
<th>Number of personnel (staff year), legal units</th>
<th>Sum of salaries, legal units (1000 euro)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>313</td>
<td>2 524 726</td>
<td>7 388</td>
<td>367 315</td>
</tr>
<tr>
<td>0 to 4</td>
<td>232</td>
<td>547 608</td>
<td>244</td>
<td>8 506</td>
</tr>
<tr>
<td>5 to 9</td>
<td>21</td>
<td>26 537</td>
<td>146</td>
<td>7 606</td>
</tr>
<tr>
<td>10 to 19</td>
<td>32</td>
<td>74 193</td>
<td>446</td>
<td>20 217</td>
</tr>
<tr>
<td>20 to 49</td>
<td>12</td>
<td>151 405</td>
<td>361</td>
<td>19 187</td>
</tr>
<tr>
<td>50 to 99</td>
<td>5</td>
<td>...</td>
<td>341</td>
<td>...</td>
</tr>
<tr>
<td>100 to 249</td>
<td>5</td>
<td>184 797</td>
<td>750</td>
<td>44 350</td>
</tr>
<tr>
<td>250 to 499</td>
<td>3</td>
<td>152 752</td>
<td>848</td>
<td>41 533</td>
</tr>
<tr>
<td>500 to 999</td>
<td>1</td>
<td>...</td>
<td>733</td>
<td>...</td>
</tr>
<tr>
<td>1 000 or more</td>
<td>2</td>
<td>...</td>
<td>3 518</td>
<td>...</td>
</tr>
</tbody>
</table>

Source: Statistics Finland

More than two thirds of the maritime transport to Finland is estimated to be carried out by the vessels having no economic ownership in Finland. The average age of fleet is over 16 years, which means that there will be a need for renewal in the coming years.
The estimation is based on the information from the Finnish Transport and Communication Agency (Traficom), which has statistics on the traffic in the ports of Finland (Table 38).

Table 38: Register based (Traficom) import – export by Finnish Vessels 1970 – 2018

<table>
<thead>
<tr>
<th></th>
<th>Import</th>
<th>Export</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>By Finnish</td>
<td>By Finnish</td>
<td>By Finnish</td>
</tr>
<tr>
<td>Vessels</td>
<td>tons</td>
<td>%</td>
<td>tons</td>
</tr>
<tr>
<td>1970</td>
<td>20 179 806</td>
<td>52,7</td>
<td>12 359 692</td>
</tr>
<tr>
<td>1980</td>
<td>31 470 022</td>
<td>45,8</td>
<td>17 900 110</td>
</tr>
<tr>
<td>1990</td>
<td>34 824 700</td>
<td>37,6</td>
<td>24 046 721</td>
</tr>
<tr>
<td>2000</td>
<td>41 092 776</td>
<td>47,2</td>
<td>39 502 576</td>
</tr>
<tr>
<td>2010</td>
<td>51 487 514</td>
<td>41,1</td>
<td>41 786 412</td>
</tr>
<tr>
<td>2011</td>
<td>54 226 497</td>
<td>38,0</td>
<td>44 282 012</td>
</tr>
<tr>
<td>2012</td>
<td>48 707 561</td>
<td>41,0</td>
<td>44 520 328</td>
</tr>
<tr>
<td>2013</td>
<td>49 308 033</td>
<td>45,3</td>
<td>47 049 102</td>
</tr>
<tr>
<td>2014</td>
<td>47 956 412</td>
<td>43,5</td>
<td>48 191 664</td>
</tr>
<tr>
<td>2015</td>
<td>44 492 479</td>
<td>40,9</td>
<td>44 676 348</td>
</tr>
<tr>
<td>2016</td>
<td>46 805 424</td>
<td>44,7</td>
<td>48 387 602</td>
</tr>
<tr>
<td>2017</td>
<td>47 294 813</td>
<td>46,6</td>
<td>51 482 940</td>
</tr>
<tr>
<td>2018</td>
<td>50 857 566</td>
<td>44,3</td>
<td>52 921 521</td>
</tr>
</tbody>
</table>

Source: Statistics Finland

There were no any large vessels imports (see Table 39) to Finland during period from 2015 to 2018 along the ITGS. The annual value of the vessels varied from EUR 15–49 million.

Table 39: Imports of vessels in international trade in goods statistics

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Million euros</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>5</td>
</tr>
<tr>
<td>CN</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>DE</td>
<td>19</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>DK</td>
<td>1</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>NL</td>
<td>.</td>
<td>21</td>
<td>.</td>
<td>13</td>
</tr>
<tr>
<td>NO</td>
<td>1</td>
<td>2</td>
<td>.</td>
<td>0</td>
</tr>
<tr>
<td>PL</td>
<td>.</td>
<td>.</td>
<td>14</td>
<td>.</td>
</tr>
<tr>
<td>PT</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>24</td>
<td>15</td>
<td>49</td>
</tr>
</tbody>
</table>

Source: Statistics Finland
The value of exported vessels in the ITGS industry varied from EUR 498–877 million during the period 2015 to 2018 (Table 40: Exports of vessels in international trade in goods statistics). The deviant value of 2017 is explained by the shipyard industry. New vessels are built in Finland and sold abroad, for example the vessels have been sold to Germany. All the cases are well known in balance of payments and national accounts of Statistics Finland. As well, there was no significant transactions in trade of vessels during 2015–2018.

Table 40: Exports of vessels in international trade in goods statistics

<table>
<thead>
<tr>
<th>Country</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>.</td>
<td>0</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>CL</td>
<td>.</td>
<td>.</td>
<td>1</td>
<td>.</td>
</tr>
<tr>
<td>CY</td>
<td>449</td>
<td>481</td>
<td>483</td>
<td>542</td>
</tr>
<tr>
<td>DE</td>
<td>.</td>
<td>1</td>
<td>66</td>
<td>.</td>
</tr>
<tr>
<td>EE</td>
<td>234</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>ES</td>
<td>3</td>
<td>7</td>
<td>44</td>
<td>.</td>
</tr>
<tr>
<td>IT</td>
<td>.</td>
<td>.</td>
<td>0</td>
<td>.</td>
</tr>
<tr>
<td>LV</td>
<td>92</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>NL</td>
<td>3</td>
<td>1</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>NO</td>
<td>37</td>
<td>1</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>PL</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>.</td>
</tr>
<tr>
<td>RU</td>
<td>0</td>
<td>0</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>SE</td>
<td>1</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>VE</td>
<td>.</td>
<td>.</td>
<td>1</td>
<td>.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>498</td>
<td>482</td>
<td>877</td>
<td>613</td>
</tr>
</tbody>
</table>

*Source: Statistics Finland*

**Concepts: economic ownership and chartering defined**

The most important concept for this report is ‘economic ownership’(63). The economic owner is the institutional unit entitled to claim the benefits associated with the use of the asset by virtue of accepting the associated risks (ESA 2010 paragraph 7.17). Since introduction of ESA 2010, economic ownership of the vessel has become the basis for recording transactions related to vessels in national accounts and balance of payments. The concept of economic ownership has replaced the earlier basis of recording transactions related to vessels, which was linked to the fact of natural or legal person’s registration as owner of a vessel. In addition, a person or company is considered to hold the economic ownership of a vessel through a bareboat charter or a financial lease agreement, when the purpose is to operate the vessel commercially (Box 22: Example of financial leasing arrangements in case of chartering). Chartering is another important concept. It is a contractual agreement between shipowners and operators/ship managers. It may feature leasing of ship and/or other services like hiring a crew or some other form of chartering service.

We will briefly define some of the most common charter agreements quoting document ‘Maritime cluster – Guidance for balance of payments data compilers’ (Box 22):

- **Voyage charter and contract of affreightment – CoA**: Voyage charter is the hiring of a vessel and crew for a voyage between the loading and the discharging port. In other words, a voyage charter provides transport of a specific cargo from port A to port B for a fixed price. The price is usually agreed per ton of commodities and/or goods carried. The ship owner (being the economic owner of the ship) operates the vessel. The ship owner pays the capital
costs, the voyage expenses (as well as the operating costs) – the port costs (excluding stevedoring), fuel costs and crew costs. CoA could be considered as a set of voyage charters, agreed at the same time, and forming one contract. For example, it could be the carriage of a certain product or commodity from a port A to a port B for twelve consecutive cargoes carried at monthly intervals.

- **Time charter:** In contrast to a voyage charter or a CoA, under a time charter the operator directs the commercial operations of the vessel for a period of time, effectively hiring the vessel for his own use; he selects the ports and directs the vessel where to go. The period of hire may vary from a few days up to months or years. The ship owner continues to pay the operating costs (i.e. the crew, maintenance and repair of the vessel) and remains the economic owner of the ship. The operator directs the commercial operations of the vessel and pays: all voyage expenses (i.e. bunkers, port charges, the fuel the vessel consumes and canal dues); handling costs and a daily ‘hire’ to the owner of the vessel.

- **Bareboat charter (demise charter):** A bareboat charter is effectively a time charter with the difference that the charterer has a full operational control (technical running and commercial management) of the ship (but does not legally own it), manages the vessel and pays all operating and voyage costs. In addition to paying for the hire of the ship, he also arranges the crew, maintenance, insurance, fuel, port expenses, etc. Bareboat charters tend to be for significant periods of time and are often used by financial institutions as a means of providing security for loans.

### 9.10.10 Data sources

#### Introduction

In this Chapter we will discuss data sources used by balance of payments and national accounts in Finland. Before that we will first have a broader look at available vessels data. Outside balance of payments and national accounts, Statistics Finland also produces transport and tourism statistics which includes merchant fleet and traffic statistics. Merchant fleet statistics is based on traffic affairs register which is maintained by Finnish Transport and Communications Agency Traficom (formerly known as Transport Safety Agency Trafi). Traffic statistics include canal traffic and foreign ship traffic statistics. These statistics are based on data collected by Finnish Transport and Communications Agency. Finnish Transport and Communications Agency shares AIS-data of current ship locations as well as data regarding income of maritime labour and vessel subventions with Statistics Finland. These data sources aren’t used by balance of payments and national accounts. Because these registers don’t record economic ownership of the ships, they are unlikely to be able to provide useful data for vessel related transactions.

Transport and tourism statistics also used to produce ‘income and expenditure of foreign sea transport’ statistics but it has been discontinued. The statistics contained data on the income received and traffic charges paid to abroad in foreign sea transport by Finnish vessels and vessels time-chartered from abroad.

#### Finnish Customs Statistics

Finnish customs statistics is the main data source for vessel transactions. This data is used by balance of payments for ITGS statistics. Finnish customs statistics and balance of payments share an online platform where Finnish customs updates the latest data regarding vessel transactions. Vessels are recorded to statistics when their economic ownership changes. Before 2010 economic ownership wasn’t used and the statistics were recorded based on flagging of ships or in certain cases data from Trafic’s register of ships was used. Older statistics weren’t revised after adoption of economic ownership criteria for recording of vessel transactions. There haven’t happened any significant changes in recorded number of vessels after this change and in fact the first half of 2010’s has almost nonexistent vessel sales activity. See Table 45: Customs statistics time series 2010–2018 for the time
series concerning the customs statistics.

The data is based on customs declaration and intrastat stat declaration as well as online sources maintained by Traficom\(^{71}\) and Equasis\(^{72}\). Stat declaration also includes declaration for imported or exported vessels for modification or repair and their return after modification or repair. Within this data, there is information on those transactions of vessels, where the change of economic ownership has not taken place. Such data are excluded from vessel transaction statistics.

The data contains commentary field and the information listed Box 21: Vessel data recorded by Finnish customs. Commentary field usually contains information on ship type. Following ship types are currently listed: cruise ship, dry cargo vessel, electric ferry, icebreaker service vessel, ro–ro ship and sailboat. Chartering may also be commented in commentary field, but it’s not done systematically because chartering information is rarely available. In practice this means that a new chartering contract is mentioned only once in the current dataset (2010–2018) and it was included only because the customs got information on both chartering and status of economic ownership directly from the company. In this specific case where the company declared bareboat chartering, it may have been ‘impossible’ to find out whether there has happened a change in economic ownership or not if the company hadn’t also directly mentioned that the economic ownership no longer belongs to Finland and the vessel has been assigned for the new owner. Thus, we may conclude that including (bareboat) chartering in statistics is far from being an easy task. There’s also another case of chartering where customs statistics record a closure of chartering contract so chartering in total is mentioned only twice in this dataset (Table 45: Customs statistics time series 2010–2018). Table 46: Navigable vessels with above CN codes are recorded by Finnish customs statistics when economic ownership is changed lists the CN codes which are recorded by customs statistics.

### Box 21: Vessel data recorded by Finnish customs

- IMO number
- Name of the vessel
- Sea transport company and/or owner and its role: e.g. ship/commercial/ISM manager and/or registered/beneficial owner
- Date (month/year)
- Import/Export
- Nature of transaction code (NoT-code)
- CN code (Combined Nomenclature)
- Value (million euros)
- Country of destination\(^{73}\)/consignment\(^{74}\)
- Previous owner/sea transport company

**Source:** Statistics Finland

**Traficom register**

The Finnish Transport and Communications Agency (Traficom) is continually maintained register on vessels listed in Finland. In the end of 2017, the merchant fleet registered in Finland was a total of 1,241 vessels with the gross tonnage was 1,760,587 and net tonnage 718,098. The number of vessels fell from the previous year from 20 on board, gross tonnage decreased by 81,459 (4.4 %) and the net volume decreased 21,711 (2.9 %).

The entire registered merchant fleet of the actual merchant fleet (length> = 15 m) was 686 with a gross tonnage of 1,619,051, i.e. 92 % of the total tonnage (Table 41: Number of vessels in Transport and

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\(^{71}\) These Finnish sources are based on traffic affairs register which was referred in previous chapter: https://www.traficom.fi/tilastot-ja-julkaisut/avoin-data; https://www.traficom.fi/kauppalaiavaston-kuukausitilastot.


\(^{73}\) Exported vessel’s country of destination is the country where the company receiving the economic ownership is located.

\(^{74}\) Imported vessel’s country of delivery is the country where the company transferring the economic ownership is located.
The Act of Competitiveness of sea transport vessels on the improvement (1277/2007) State aid may be granted for vessels listed on the merchant vessel list. The list of merchant vessels shall be entered on the application such as in the Finnish ship register which is intended to function as a support year mainly in international traffic. The Finnish Transport Agency monitors conditions to be followed. The list of merchant vessels is the main register information, which the economic ownership can be based.

### Table 41: Number of vessels in Transport and Communications Agency Register

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Vessels (length &gt; 15 m)</th>
<th>Gross Tonnage</th>
<th>Number of Listed Vessels in the international traffic</th>
<th>Gross Tonnage</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>509</td>
<td>1370650</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>487</td>
<td>2346171</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>451</td>
<td>1093602</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>612</td>
<td>1670285</td>
<td>106</td>
<td>1057943</td>
<td>63.3</td>
</tr>
<tr>
<td>2010</td>
<td>670</td>
<td>1532453</td>
<td>113</td>
<td>1329311</td>
<td>89.7</td>
</tr>
<tr>
<td>2015</td>
<td>702</td>
<td>1697192</td>
<td>105</td>
<td>1537004</td>
<td>90.6</td>
</tr>
<tr>
<td>2016</td>
<td>702</td>
<td>1702749</td>
<td>107</td>
<td>1536520</td>
<td>90.2</td>
</tr>
<tr>
<td>2017</td>
<td>686</td>
<td>1619051</td>
<td>110</td>
<td>1438229</td>
<td>88.8</td>
</tr>
</tbody>
</table>

Source: Statistics Finland

In the end of 2017, there were 110 vessels with a gross tonnage of 1,438,229 on the list of merchant vessels. The number increased by three vessels, but the gross tonnage decreased by 98,291 compared to the previous year. The share of vessels listed on the merchant fleet was 88 % of gross tonnage. 52 % of the gross tonnage of vessels in the trade register was dry bulk carriers, 12 % tankers, 35 % passenger ships and 1 % other vessels. The register information forms a base to the analysis.

To achieve a comprehensive understanding of the structure of ownership more careful studies and comparison of the financial statements, Balance of Payments figures, companies web pages and other publicly available information are executed. In the maritime industry, it is common that the operating company is not the legal owner of the vessels, and the vessels are hired. These operations should be reported in the trade in services.

#### 9.10.11 ITGS statistics

In Finland ITGS is part of balance of payments and it collects data by sending inquiries quarterly and annually. A more detailed description of these queries is found in the section 3.5 ‘Vessels in balance of payments’.

News, press releases and financial statements information are also utilized by ITGS. Whereas customs statistics contain data on vessels transactions, ITGS statistics contain data on other transactions related to vessels like chartering and goods sold on ships. Annual inquiry on international trade in services and international flows of goods\(^{(75)}\) includes several items that are relevant for these other transactions related to vessels. The relevant items are listed below with a brief description of what’s included in that item with a focus on those items that are relevant for this report.

- **Passenger transport**: this item includes international fares connected to transportation of passengers, taxes related to the trip, payments related to package tours, surcharges for luggage, transport equipment or other carry-on personal goods as well as food, drink and other commodities sold on the trip (cruises aren’t included in the inquiry).

- **Goods procured**: this item includes fuel and goods delivered to vessels (commodity purchases by the crew for personal use aren’t part of the inquiry).

- **Other transport services**: this item includes renting of ships with crew (time charter with crew). In the ITS-questionnaire the service type is defined as ‘Sea Transport; Other than passenger and freight’, code SC13. (Annex 1 [1])

- **Operating leasing services**: this item includes charter without operators or crew, code SJ33 in the ITS-questionnaire.

- There are some limitations in recording these statistics. For example, when selling commodities on the ship, customer’s country of origin isn’t known so sales per country can only be estimated. Also, different product and service types aren’t differentiated from each other. For example, fuel and goods are under same item. In case of chartering, charter with crew and charter without crew are under distinct items but there aren’t references to other chartering types like voyage chartering. Thus, all chartering is referred by ITGS as ‘chartering’ which is sometimes more specifically referred containing ‘time charter’. The conceptual framework regarding chartering may need clarification as currently it seems to be vague compared to the conceptual framework presented in Chapter 1.2. of this report. One reason for this could be practical difficulty to obtain exact data.

### 9.10.12 Structural business and financial statement statistics

Structural business and financial statement statistics is the main source of data used by national accounts. It’s updated annually and consists of following inquiries:

- Financial statements inquiry for enterprises (TILKES)(76)
- Business Register inquiry for single-establishment enterprises(77) and multi-establishment enterprises(78)
- Inquiry on establishment structure and personnel(79)

TILKES inquiry is the most relevant for this report. The other inquiries collect data for business register, establishment structure register and employment statistics.

Quoting from Statistics Finland’s website(80):

The financial statements inquiry for enterprises (TILKES) annually collects data on the breakdown of income and expenditure, increases and decreases in assets, and itemised balance sheet data. A majority of the data is collected from the Tax Administration’s business taxation file. The data are supplemented with Statistics Finland’s own data collection.

The data collected by TILKES isn’t necessarily as definitive as information available in balance sheet. For example, cruising companies may have a specific balance sheet item for worth of their ships while TILKES, instead, uses more generic concepts like ‘machinery and equipment’ consolidating various specific items under this generic item. Thus, TILKES data may at times be less definite than data on balance sheet. This is because TILKES is a general inquiry which isn’t targeted specifically for sea transport companies, but the same form is used for all types of companies.

In case of income statement, TILKES data has more specific itemization therefore providing access to more definite data. Turnover is differentiated to various items. For example, ‘wholesale and retail trade’, ‘restaurant activities’ and ‘hotel activities’ are each a separate item thus providing more specified data. These tree items and are the most relevant ones for recording transactions which are related to vessels. In addition, there’s a miscellaneous item(81) which includes possible chartering income.

Like turnover on income statement, expenses are also itemized to various categories. There are items like ‘acquisition of materials and supplies’, ‘acquisition of merchandise’, ‘transport and storage expenses’, ‘leasing rents’ and ‘other rents’. The item ‘leasing rents’ consists of operational leasing for fixed asset commodities and the item ‘other rents’ includes leasing rent in other cases. Financial leasing isn’t included in TILKES and for that there’s a separate financial leasing inquiry(82) which includes financial leasing of vessels. Leasing is of interest because chartering contracts may contain leasing arrangements (leasing of vessels). Yet this is a complex question because not all chartering contracts contain leasing and it can only be investigated on basis of individual contract whether leasing is included or not. Even if leasing is included there can be complex arrangements which include other categories.

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(81) The official name of this item ("Turnover from other service industries and agriculture, hunting and forestry") is somewhat misleading in case of water transport companies but it basically contains all miscellaneous turnover that doesn’t fit other categories.
subsidiary companies, so chartering doesn’t necessarily transfer economic ownership of the vessel (see Annex 2). To make matters even more complex, these items on TILKES which contain leasing may not be used to allocate chartering expenses and item ‘transport and storage expenses’ may be used instead. Because of this ambiguity ITGS statistics are a better source for chartering related data although it doesn’t include possible domestic chartering transactions. We will note in next Chapter that economic ownership of vessels belonging to Finland is uncommon, so domestic chartering is unlikely scenario in current conditions.

In all cases, that is in cases of recording trade in aircraft, vessels and changes in the inventories regarding new vessels, the financial statements of the companies are widely used as well. The financial statements may include additional information on the companies’ order books, geographical distribution of turnover and other issues related to the recording of turnover and costs. Some companies report the turnover by the type of the activity, such as ship building and other services. There is also information on the inventories. The annual reports contain information on the significant events during the accounting period, for example on the ongoing projects. This is of a special importance for the recording changes in inventories regarding vessels.

9.10.13 Data sources for recording inventories

There are multiple data sources used and compared when compiling the ship building industry figures. As in the case of aircraft, the main data source for inventory compilation in the production and employment accounts is structural business statistics. Secondly, the data on the internal and external commodity trade described by the international trade statistics is utilized. This data comes from the customs and is available on monthly and country by basis. Other sources used, are statistics on industrial output, manufacturing and trade inventories and international surveys. The sources, that have not been yet described in the Chapter above are described below.

**Industrial output survey**

The statistics on industrial output contain data on sold and total outputs by commodity heading. The data are collected from enterprises or establishments of enterprises. The data describe production in Finland during a calendar year.

In addition, data are inquired on the volume of total output of certain separately defined commodities (in the case of vessels, the value of total output).

**Statistics on manufacturing and trade inventories**

The statistics on manufacturing and trade inventories contain data on inventories on quarterly basis. The statistics are produced from data on a sample of enterprises, which are sent an inquiry about the value of their inventories at the end of the reference quarter in question. The values are reported by type of inventory, for example, materials and supplies, work in progress, finished goods and goods for resale.(83)

The values of inventories by industry calculated from the sample are raised to represent the value of the inventories of the population (enterprises whose industry is either manufacturing or trade) by using the latest turnover data available from statistics on the financial statements of enterprises. The raising is based on the assumption that the ratio between the values of turnover and inventories is constant within the industry.(84)

In manufacturing, the statistics are published at the following industry levels established from the Standard Industrial Classification: Manufacturing, wood and paper industry, chemical industry, manufacture of electrical products, other metal industry and other manufacturing. The respective industry levels in trade are: Motor vehicle trade, wholesale trade and retail trade. For manufacturing, the value of inventories is published by type of inventory as follows: Materials and supplies, (inclusive of fuels and lubricants), work in progress, finished goods and goods for resale.(85)

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**The sales inquiry and value added tax data**

The sales inquiry concerning manufacturing and services asks for monthly sales data corresponding to turnover data broken down between domestic sales and sales abroad. The data on sales abroad can be compared to exports data in trade statistics\(^{(86)}\).

The sales inquiry covers around 2000 most important enterprises in their respective industries from whom data on turnover are collected monthly. The inclusion criterion for the sample is the size of the enterprise’s turnover relative to the turnover of the respective industry\(^{(87)}\).

In addition, data on the wages and salaries sum are inquired from around 30 enterprises divided into kind-of-activity units, because they are not available from other sources. The sample of the inquiry is updated monthly due to enterprise reorganizations. A larger sample updating is carried out yearly\(^{(88)}\).

**9.10.14 The main sources of balance of payments statistics**

As it has been mentioned earlier, balance of payments and national accounts are very closely integrated in the Statistics Finland. The methods of recording the trade in vessels and aircraft are congruent. The Balance of Payments and National Accounts are produced by the same method in Statistics Finland. The trade in goods (incl. vessels) is based on the ITGS, which is produced by the Statistic office of customs of Finland. The trade in services information (incl. water transport, chartering etc.) is collected by the Balance of Payments international trade in services survey (ITS). Also, some other estimation methods are applied in the imports (e.g. CIF-FOB estimation).

**Annual and quarterly inquiries of balance of payments (ITGS/ITS)**

The ITS inquiry is sent on both quarterly and annual basis. The inquiry on foreign trade in services and international flows of goods collects data from enterprises needed for the statistics on ITGS. The data on ITS are collected by country in accordance with the service items defined in a Regulation of the European Council. The data is also used in the compiling of balance of payments and national accounts. The quarterly data is then used to compile the annual statistics on international trade in services.

The data asked are divided by service and country. The inquiries cover inter alia manufacturing services, maintenance and repair services n.i.e., postal and courier services, transport services, construction services, financing services, telecommunication, information technology and information services, royalties and license fees. The inquiry does not include tourism and insurance services on which data are already collected with other inquiries. The division of countries used in the questionnaire is based on the BPM6 (2009). The classification used in the compilation of the statistics is the Extended Balance of Payments Services (EBOPS) classification, which is an international classification presented in the Manual on International Trade in Services.

The trade of goods in ITGS is based on the information coming from Finnish customs. Customs statistics is the main data source for transactions of vessels in balance of payments. Finnish customs statistics and balance of payments share an online platform. Experts from customs update the latest data regarding vessel transactions, so there are no long lags in data exchange. Vessels are recorded in the statistics, when the economic ownership changes. Before 2010 economic ownership was not used and the statistics were recorded based on flagging of ships or in certain cases data from Trafi’s register of ships was used. Older statistics were not revised after adoption of economic ownership criteria for recording of vessel transactions.

**9.10.15 Changes in inventories of new vessels**

The ship building industry (NACE 30.1) covers for instance building of ships, boats and floating structures. The ship building projects may last for several years and are of significant monetary value. Therefore, it is crucial to ensure that the changes in inventories (work-in-progress) are recorded correctly in the National Accounts. In the aspect of the National Accounts the time of recording and the valuation of changes in inventories is essential. This must be done so that the demand and supply are in balance.

Supply

The ongoing ship building projects that are not finished at the end of the given period should be recorded as a work-in-progress in inventories. In the case of multiannual project, the whole value is divided for several years based on the construction work. The output (P1.) consist of the changes in inventories (P.52). When the production process is completed, corresponding reductions in the work-in-progress inventories is made.

Demand

On the demand side, acquisitions of vessels are recorded as gross fixed capital formation (P.51) or as exports (P.6). The gross fixed capital formation of machinery and equipment (vessels in this case) is recorded as the ownership of the fixed asset is transferred. In other words, just when the institutional unit that intends to use them in production, receives the completed vessel. Until then, the transaction for unfinished construction works is recorded as changes in inventories which is corresponding to the output on the supply side.

Example on the effect of different accounting rules on the national accounts transactions

Enterprise A is a cruise ship builder which records ongoing work as inventories (work-in-progress) in the balance sheet instead of turnover in financial statement. During the first two years the output consist only of the changes in inventories (+200 each year). As the ship is completed in the third year it is transferred to the other institutional unit and the enterprise A then records the sales as turnover in its financial statement (+600). Simultaneously the work-in-progress inventories reset (assuming there are no other projects ongoing at the same time) in the balance sheet and the change in inventories is -400. As a result, both demand and supply are 200 each year as can be seen in the Table 42 below.

<table>
<thead>
<tr>
<th>Table 42: Enterprise A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistical value, EUR million</td>
</tr>
<tr>
<td>Turnover</td>
</tr>
<tr>
<td>Changes in inventories: work-in-progress</td>
</tr>
<tr>
<td>Value of inventories at the beginning of the period</td>
</tr>
<tr>
<td>Value of inventories at the end of the period</td>
</tr>
<tr>
<td>Output (turnover + work-in-progress)</td>
</tr>
<tr>
<td>Value added (Output – intermediate consumption)</td>
</tr>
<tr>
<td>Total supply</td>
</tr>
<tr>
<td>Changes in inventories: work in progress</td>
</tr>
<tr>
<td>Investments / exports</td>
</tr>
<tr>
<td>Total demand</td>
</tr>
</tbody>
</table>

Source: Statistics Finland

Enterprise B is a cruise ship builder as well but records ongoing work as turnover instead of changes in inventories in financial statement. The value of the whole project is split in three years based on the estimated costs in each period. During the first two years the output consist only of the turnover (+200 each year). As the ship is completed in the third year it is transferred to the other institutional unit and Enterprise B then records the remaining ‘part’ of the sales in its financial statement (+200). In
comparison to the enterprise A, there is no changes in inventories recorded implying there is no demand in the first two years. Note that in the final period, there is recorded 600 as investments/exports on the demand side. Hence, the demand and supply do not match on any year as can be seen in Table 43.

Table 43: Enterprise B

<table>
<thead>
<tr>
<th>Statistical value, EUR million</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Changes in inventories: work-in-progress</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Value of inventories at the beginning of the period</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Value of inventories at the end of the period</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Output (turnover + work-in-progress)</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Value added (Output – intermediate consumption)</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Total supply</td>
<td>200</td>
<td>200</td>
<td>600 – 400 = 200</td>
</tr>
<tr>
<td>Changes in inventories: work in progress</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Investments / exports</td>
<td>0</td>
<td>0</td>
<td>600</td>
</tr>
<tr>
<td>Total demand</td>
<td>0</td>
<td>0</td>
<td>0 + 600 = 600</td>
</tr>
</tbody>
</table>

Source: Statistics Finland

9.10.16 Discussion on the cross-border work on vessels

In other Nordic countries and in the Netherlands the sea transport industry is more significant than it is in Finland. The complexity of the industry and changes in the accounting standards affect also Finland. Some of the best practices has been shared in the cross-border work, and some mirror comparisons have been made.

The water transport figures have been compared in OECD meeting between Finland and Sweden, and Finland and Russia. The reasons for the discrepancies were analysed. The reported information on exporting (Russia) is more reliable than the estimated counterpart information import (Finland).

The major companies, which are exporting oil from Russia, use vessels, which are on operating lease (charting) for example from Cyprus. In many cases, the vessels are just registered in one county, and the economic ownership is in some other country. The CIF-FOB calculation method, which is applied in Finland, just estimates the import of water transport from Russia related to the imported goods, which was a source of geographical bias. The transportation cost survey, which is one source of the CIF-FOB estimation method, does not detect the economic ownership of the vessel and the country of the transportation service very well. There is need to develop a new estimate.

9.10.17 Comparison of Finland’s practices to other Nordic countries

Finland has participated to The Nordic meetings on trade in goods and services, and one of the topics has been the trade in vessels and aircrafts. Denmark, Norway, Sweden, Iceland and the Netherlands had presentations and shared information on the compilation of trade in vessels according the new IAS 17 standards. Some case studies were introduced for the discussion.

In balance of payments in Finland, the information on the ownership of the ship is based on the Finnish Transport and Communications Agency information. In many cases, the maritime companies are in the essential role on the security of supply of Finland, and are entitled to subsidies, which is the main
reason why the Traficom register is relatively reliable. The changes in economic ownership should be reported to the customs of Finland, which is the source of trade in goods information in the national accounts and balance of payments.

In most cases, the largest maritime transport companies also announce information on the transactions, and orders on the new vessels. The maritime transport of Denmark, Island and Norway has much more significant role for the total economy. The industry acts in the global markets and the ownership structures are complicated.

9.10.18 Conclusion

Water transport industry in Finland consists only a minor portion of Finnish economy (around 1 % of GDP year 2017). More than half of the personnel is concentrated to three companies.

Finnish vessels operate mostly on Baltic sea. Passenger transport is dominated by two major cruise lines. The same situation prevails also in freight transport, which is dominated by two major companies. Besides commercial vessels, there are state-owned non-commercial vessels like ferry boats and ice-breakers. Inland water transport (whether passenger or freight transport) is extremely small business in Finland due to challenging climate conditions.

Customs statistics is the most important source for vessel economic ownership data in Finland which is used by balance of payments for ITGS statistics. There is, however, another register that gathers information about vessel transactions - The Finnish Transport and Communications Agency (Traficom). The register is reflected to the customs statistics.

When we have a look at customs statistics, we notice that there isn’t a sizeable commercial fleet in Finland from the perspective of economic ownership. 30 % of vessels which have had economic ownership in Finland had it only because the vessel was constructed in Finland and then immediately sold abroad (see Annex 2). More importantly, the statistical value of newly built vessels which were sold during period 2010–2018 is EUR 2.259 million, whereas the statistical value of the rest of the transactions (70 % of transactions) is merely EUR 390 million (this includes chartering, see Table 44: Statistical value of vessel transactions during 2010–2018 below). This bias is explained by the fact that Finnish water transport companies generally don’t have the economic ownership. For vessels, whose economic ownership is in Finland, the concern is that they are so old that they don’t belong to this period of 2010–2018.

Table 44: Statistical value of vessel transactions during 2010–2018

<table>
<thead>
<tr>
<th>Statistical value, EUR million</th>
<th>% of vessel transactions</th>
<th>% of statistical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale of vessel, newly built in Finland</td>
<td>2 259</td>
<td>30 %</td>
</tr>
<tr>
<td>Other transactions</td>
<td>390</td>
<td>70 %</td>
</tr>
<tr>
<td>Sum</td>
<td>2 649</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Source: Statistics Finland

Most of the companies which have economic ownership of their ships in Finland are not companies registered to Finland (although there are some exceptions). Thus, we conclude, that majority of the water transport business in Finland i.e. the business which falls under industrial classification 50, has economic ownership of its vessels outside Finland. Finnish companies are involved to the global maritime business more as builders of vessels rather than owners/operators of vessels.

There are practical difficulties to obtain data on economic ownership of the vessel unless the company directly declares the status of economic ownership. Therefore, the data sources may not be able to cover every vessel related transaction and a certain amount of interpretation might be needed from the statistical authority to clarify, where the economic ownership of the vessel belongs to. The principle of economic ownership is used in Finland in all cases of statistical compilation despite some difficulties at obtaining accurate information. We don’t consider this to be a major issue because commercial fleet activity consists only a minor portion of Finnish economy.
As some major Finnish sea transport companies (e.g. Finnlines Oy and Viking Line ABP) are writing off their old vessels and investing in new vessels during upcoming years, this is a good moment to clarify any ‘loose ends’ in statistical compilation and implement best practices for clarifying economic ownerships of their vessels. Therefore, we consider it to be of great importance that national statistical institutes and Eurostat can clarify and coordinate the best practices and sources used for compilation of vessel statistics.

Besides vessel transactions, other vessel related transactions data is gathered by:

- ITGS both directly (inquiries) and indirectly (financial statements, news and press releases)
- national accounts via TILKES inquiry
- national accounts via financial leasing inquiry

All these sources provide highly aggregated data but in case of ITGS, the data is less aggregated thus providing more accurate picture of vessel related transactions and transport services. ITGS data provides information on chartering although the conceptual framework used here may be vague. This is an ‘loose end’ which we could improve if it’s possible to find more accurate data. Also, financial leasing inquiry used by national accounts may provide information on chartering, but this data is difficult to interpret for this purpose (see Annex [2]). TILKES inquiry used by national accounts also provides data on purchase of vessels and other vessel related transactions (for example merchandise sold on vessels) but this data is less specific than ITGS data. Thus, ITGS has the most accurate data available on vessel related transactions in Finland as the inquiries used to obtain this data are better suited to obtain data on vessel related transactions than inquiries used by national accounts.

Changes of inventories are precisely accounted for in national accounts. The ship building industry (NACE 30.1) covers, for instance, building of ships, boats and floating structures. The ship building projects may last for several years and are of significant monetary value. Therefore, it is crucial to ensure that the changes in inventories (work-in-progress) are recorded correctly in the National Accounts. This must be done so that the demand and supply are in balance.

On the supply side are the ongoing ship building projects that are not finished at the end of the given period. These must be recorded as a work-in-progress in inventories. In the case of multiannual project, the whole value is divided for several years based on the construction work. The output consists of the changes in inventories. When the production process is completed, corresponding reductions in the work-in-progress inventories is made.

On the demand side, acquisitions of vessels are recorded as gross fixed capital formation or as exports. Vessels are part of class ‘Machinery and equipment’. The gross fixed capital formation of machinery and equipment is recorded as the ownership of the fixed asset is transferred. In other words, just when the institutional unit that intends to use them in production, receives the completed vessel. Until that, the transaction for unfinished construction works is recorded as changes in inventories which is corresponding to the output on the supply side.

9.10.19 References

### 9.10.20 Annex

**Customs statistics time series**

*Table 45: Customs statistics time series 2010–2018*

<table>
<thead>
<tr>
<th>Vessel transactions</th>
<th>Chartering</th>
<th>Sale of vessel, old</th>
<th>Sale of vessel, newly built in Finland</th>
<th>Purchase of vessel</th>
<th>Total per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td>3</td>
<td>1</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>1</td>
<td>4</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>2017</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>2018</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Total per type of transaction</td>
<td>2 11 11 13</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of sum of total per type of transaction</td>
<td>5% 30% 30% 35%</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Statistics Finland*
## CN codes and the Customs statistics time series

Table 46: Navigable vessels with above CN codes are recorded by Finnish customs statistics when economic ownership is changed

<table>
<thead>
<tr>
<th>CN code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>89011010</td>
<td>Seagoing: Cruise ships, excursion boats and similar vessels principally designed for the transport of persons; ferry-boats of all kinds</td>
</tr>
<tr>
<td>89012010</td>
<td></td>
</tr>
<tr>
<td>89013010</td>
<td>Seagoing: Refrigerated vessels, other than those of subheading 890120</td>
</tr>
<tr>
<td>890198010</td>
<td>Seagoing: Other vessels for the transport of goods and other vessels for the transport of both persons and goods</td>
</tr>
<tr>
<td>89020010</td>
<td>Seagoing: Fishing vessels; factory ships and other vessels for processing or preserving fishery products</td>
</tr>
<tr>
<td>89039110</td>
<td>Seagoing: Sailboats, with or without auxiliary motor</td>
</tr>
<tr>
<td>89039210</td>
<td>Seagoing: Motor boats, other than outboard motor boats</td>
</tr>
<tr>
<td>89040010</td>
<td>Tugs</td>
</tr>
<tr>
<td>89040091</td>
<td>Seagoing: Tugs and pusher craft</td>
</tr>
<tr>
<td>89051010</td>
<td>Seagoing: Dredgers</td>
</tr>
<tr>
<td>89052000</td>
<td>Floating or submersible drilling or production platforms</td>
</tr>
<tr>
<td>89059010</td>
<td>Seagoing: Floating or submersible drilling or production platforms</td>
</tr>
<tr>
<td>89061000</td>
<td>Warships</td>
</tr>
<tr>
<td>89069010</td>
<td>Seagoing: Other vessels, including warships and lifeboats other than rowing boats</td>
</tr>
</tbody>
</table>

Source: Statistics Finland
Chartering, financial leasing and economic ownership

**Box 22: Example of financial leasing arrangements in case of chartering**

A Finnish company orders a ship from a Chinese shipbuilder. The Chinese company prefers to do financial business with Luxembourg-based customers, therefore the Finnish company sets up a daughter company in Luxembourg. The only function of the daughter company in Luxembourg is to manage the financing of the ship. The Finnish company sells the ship just bought from China to its daughter company in Luxembourg. This subsidiary pays the ship when the ship is delivered from China. The Luxembourg subsidiary leases the ship back to the Finnish mother company under bareboat charter. The ship arrives in Finland, is registered in the Finnish national ship register and starts operating. The transactions shall be considered as interlinked (jointly negotiated, related parties involved). If, after examining the substance of the transaction, the provisions of the bareboat charter enable to classify the leasing arrangement as financial leasing then the imports in Finland from China shall be recorded. Otherwise the transaction shall be recorded in Luxembourg, as the operational leasing arrangement does not transfer the economic ownership from the Luxembourg subsidiary to the Finnish mother company.

*Source: Compilers guide on European statistics on international trade in goods 2017*

**Figure 41: Trade in vessels/aircraft – interlinked transactions**

*Source: Compilers guide on European statistics on international trade in goods 2017*
9.11 Case study United Kingdom: Compilation of statistics on sea transport in national accounts and balance of payments

9.11.1 Introduction

The objective of this case study is to discuss the United Kingdom’s experiences of the recording and compilation of maritime transactions in the national accounts and balance of payments (BOP). This will include looking at the wider structure of the shipping industry in the UK and a view of the data and methodologies used by Office for National Statistics (ONS) to produce these statistics. The case study will provide an overview of sources and methodologies used to produce balance of payments consistent data for transport services, exports and imports of vessels and aircraft and operational leasing of vessels and aircraft. It will also discuss specific challenges that ONS have faced in the production of these statistics and what steps have been taken to ensure data that we publish is accurate.

UK Trade statistics are currently undergoing a period of unprecedented development. Across 2018 ONS published an additional 99,000 trade series compared with previous years. This includes new, much more detailed datasets within both Trade in Goods and Trade in Services. Trade in Goods have been able to publish a new, experimental dataset providing goods data by industry, country and commodity(89). For Trade in Services an experimental dataset giving services by country and service type has now been published(90) as well as a trade in services by industry publication(91). In order to continue expanding the range and quality of trade statistics, ONS has been working to obtain new data sources where existing sources are no longer available or are not providing the required level of detail. This case study will discuss both current and to-be methods.

In the UK’s National Accounts, consistent with Pink Book 2019(92), in 2018 UK exports of transport services are estimated to be GBP 29.5 billion making it the fourth largest service type that year; this accounted for 10.0 % of total services exports. For imports, transport was the third highest service type and contributed GBP 25.7 billion (13.3 %) of total services imports. Overall, transport services contributed GBP 3.7 billion to the UK trade in services surplus in 2018.

Estimates for exports and imports of vessels and aircraft are published within the Trade in Goods estimates. During 2018, the UK exported GBP 16.2 billion of ships and aircraft, the equivalent figure for imports is GBP 10.1 billion. For both imports and exports, the sale of aircraft was the bigger contributor to the ‘ships and aircraft’ figure. Operational leasing is a smaller industry in the UK where imports are higher than exports.

9.11.2 Scale and structure of the industry

The shipping industry in the UK consists of various activities, which includes the transportation of passengers and freight on both inland and international waters. The industry contributes to the UK economy through business turnover, employment and consequently compensation of employees. These activities by UK shipping companies contribute to the exports of transport services compiled and published by ONS as part of UK Trade statistics.

Centre for Economics and Business Research (Cebr) have written a report(93) looking at the economic contribution of the UK shipping industry. They have conducted analysis on shipping industry data from ONS, UK Chamber of Shipping (UK CoS) and the Department for Transport (DfT) to inspect trends and changes in the make up and contribution of the UK shipping industry to the UK maritime sector, as well as the UK maritime sector’s contribution to total UK turnover. In addition to the shipping industry, the maritime sector is comprised of the following industries: maritime engineering and

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scientific, maritime business services, ports and leisure marine. The Cebr reports that between 2010 and 2017 the contribution that the shipping industry made to the UK maritime cluster has increased from 35.8% in 2010 to 40.1% in 2017. While 2017 saw the highest contribution in direct turnover, 2016 saw the highest percentage contribution to the UK maritime sector at 40.6%. The largest sub-industry of the shipping industry in this data is the international freight transport (bulk, container, gas and tanker) and this has consistently been the largest sub-industry between 2010 and 2017. International passenger transport (cruise and ferry) is the next largest and the business turnover for this industry has increased by GBP 3.7 billion between 2010 and 2017. During this time, the international passenger transport and international freight transport industries combined have consistently accounted for approximately 90% of the shipping industry while the remaining 10% is made up of ‘other shipping activity’ and domestic and inland waterway freight and passenger transport.

The report also looks at lower level detail of the type of vessels and the same trend as above can be seen. Between 2010 and 2017 the percentage of revenue from passenger cruise services rose from 19% to 39% but for dry cargo freight (dry bulk and container) the share of revenue fell from 52% to 30% over the same period.

In 2000, the UK Government introduced the new tonnage tax regime. This is an optional tax regime where shipping companies with qualifying vessels can pay Corporation Tax liabilities based upon the gross tonnage for the ships that they operate rather than paying tax based on the companies’ profits. Shipping companies that opt into the tonnage tax regime pay corporation tax based on the net tonnage of a vessel and the number of days a year in which the vessel is operational; this allows shipping companies to determine the level of tax payable at any given time, which allows for certainty and allows companies to plan efficiently. There are also financial benefits for companies as net tax liabilities are often lower under the tonnage tax regime than they would be compared with the standard corporation tax regime.

Cebr have conducted analysis to try and understand the economic impact of Tonnage Tax on the UK shipping fleet. They monitored the deadweight tonnage of the UK shipping fleet for 14 years prior to the introduction of Tonnage Tax. Following the introduction of the tax they continued to plot the deadweight tonnage in three different scenarios: Central, Upper and Lower scenarios based on how the industry may have continued. The lower scenario assumes that the size of the UK shipping fleet would halve over time. Between 1986 and 1999 the deadweight tonnage of the UK shipping industry was in decline; the central scenario assumes that this downward trend would have continued into the 2000’s. The upper scenario used a fitted econometric model which aims to control for other factors e.g. growth in world trade and oil prices which may impact the growth or decline of the shipping industry. They found that the actual deadweight tonnage of the UK shipping fleet from 2000 onwards was much higher than any of the three possible scenarios, which led them to conclude that there was sufficient evidence to suggest that the introduction of the Tonnage Tax regime had considerably increased the contribution of the shipping industry in the UK economy.

9.11.3 Methodology and data analysis

Transport services

The compilation of ONS UK transport data involves numerous sources; this includes both survey and administrative data sources from private and public organisations as well as sources internal to ONS.

For sea transport (imports and exports), the primary data sources are the UK Chamber of Shipping (UK CoS) and a register of ships containing detailed information on the ownership structure of the UK fleet. The UK CoS is the trade association of the UK shipping industry. They work with government, parliament, international organisations and other organisations to raise awareness of the shipping industry and represent its members’ commercial objectives. They also provide support to members regarding legislation and regulations that affect them. UK CoS have 180 member companies that are shipowners, professional organisations and service companies. Since 1995 UK CoS have run quarterly and annual surveys of their members in order to provide the ONS with data on the UK shipping industry. The quarterly survey goes out to the largest members of UK CoS and collects data on the returning company, ships owned and operated by the respondent, freight revenues, passenger revenues, disbursements and time charter payments and receipts. The annual survey covers all UK CoS members and collects more detailed breakdowns than the quarterly survey e.g. the type of disbursement, geographic information and whether the charter is with or without crew. Membership to the UK CoS is voluntary so there are a number of UK owned and operated vessels not surveyed by
the UK CoS. ONS use a register of UK ships, covering the entire UK fleet, to gross CoS returns to the total population. This grossing is done by the type of ship. ONS has recently expanded the shipping register data so that the data now contains information on the registered owner, beneficial owner, ship manager, commercial operator, bareboat charterer and the technical managers of all UK vessels. This allows ONS to make better judgements of who the true economic owner of a ship may be.

Data for air transport services are predominantly survey data. There are three ONS surveys: a survey sent out to UK airports, one sent to UK airlines and the International Passenger Survey (IPS).

The survey sent to UK airports collects data on foreign airlines’ operations in the UK. It asks respondents to provide data on foreign airlines’ payments to airport authorities, goods purchased in the UK (for example fuel and catering suppliers) and any other expenditure within the UK. This provides the ONS with data on exports of ‘other transport services’ within air transport. The survey sent to UK airlines collects data on UK airlines’ transactions with non-UK residents. The airlines provide data on their expenditure overseas, which ONS uses to estimate imports of ‘other transport services’ within air transport. The airlines also report freight, passenger and other (from, for example, operational leasing of aircraft) revenue which are used to estimate exports data within the UK’s Trade in Services statistics.

The surveys sent to UK airlines and airports are not mandatory; this and other factors including time constraints of staff and changes to company systems can cause response rates to fluctuate. In order to improve consistency, work is being undertaken by the Trade Development project team. They are working with the UK Civil Aviation Authority to review existing grossing factors for these surveys – making use of existing admin flight-level data.

The International Passenger Survey is an ONS run survey which is based on interviews of travellers arriving at and departing from major air, sea and tunnel routes in the UK. Random stratified samples are used to obtain expenditure data from UK and foreign residents. This data is treated and weighted by the IPS team before data is delivered to the Trade team on a quarterly and annual basis. The data provided is used to create estimates of passenger spend in both the air and other transport accounts.

Methodology and data analysis for exports and imports of vessels and aircraft

Imports and Exports of vessels and aircraft are compiled as part of the Trade in Goods statistics and estimates are currently produced by the UK customs office – Her Majesty’s Revenue and Customs (HMRC). For aircraft, changes in ownership are more straightforward to capture, as the UK Civil Aviation Authority holds a register of all owned and operated aircraft held by UK companies which is used by HMRC to compile Trade in Goods estimates. Data is also collected by HMRC on Intrastat forms and customs declarations which detail aircraft being imported to and exported from the UK from EU and non-EU countries respectively.

For vessels, ownership can be more complex to determine. More sources are used to determine when there has been a true change in economic ownership of a vessel. For EU trade, Intrastat forms are used to estimate sales and purchases of vessels and this form compiles data based on the change of economic ownership as set out Section 16 of Notice 6094 – guidance for the Intrastat form. For non-EU partners where Notice 60 does not apply, genuine changes to the economic ownership of a vessel can be harder to determine so this is where additional sources including individual company websites, trade magazines and international shipping registers are used to identify ships being imported and exported by the UK. This helps to increase the quality of the UK’s estimates of the values of ships being imported and exported.

As there are challenges with the collection of data for vessels, ONS have been working with the Task force for the recording and compilation of maritime transactions in national accounts and balance of payments and other National Statistical Institutes (NSI’s) to share best practice and explore options for new external data sources. This work will allow the UK to make better estimates of sales and purchases of vessels by the UK as well as better understand the prevalence of bareboat chartering within the UK maritime cluster.

9.11.4 Leasing and the impact of IFRS

Data on operational leasing within the UK comes from three sources: International Trade in Services Survey (ITIS) survey, UK CoS and the survey to UK airlines. The ITIS survey is a mandatory business survey which is sent to UK businesses who are known to trade internationally in services.

The surveys’ respondents are non-transport industries, however transport equipment is listed for exhaustiveness. This allows the survey to capture any operational leasing of transport equipment by companies whose primary business means they fall outside of the Standard Industrial Classification (SIC) for businesses predominantly engaged in transportation services. The largest respondents to the operational leasing services question are companies in construction and petroleum-based industries.

The UK CoS survey also collects chartering information from the UK shipping industry. The questionnaire asks respondents to provide details of their charters including details of the ship, the nationality of the company to which the ship is chartered, the total hire money received for the charter and whether the ship is chartered with or without crew.

UK CoS have provided guidance to companies responding to their survey as some has reported difficulty answering some of the survey questions, i.e. the shipping companies are more familiar with the term ‘time charters’ than ‘operational leasing’. The guidance notes provide a simple distinction between financial leases and operational leases for respondents – stating that ships leased from banks and leasing companies are financial leases whereas ships leased from other shipowners are operational leases. The document goes on to say that financial lease payments should not be recorded anywhere in the UK CoS questionnaire as these are captured via other data sources ONS uses in the compilation of the UK’s National Accounts. The note stipulates that companies treat operational leases and short-term bareboat charters (up to three years) as time charters and that monies received should be entered as ‘Charters Out’ and monies paid should be entered as ‘Charters In’. The guidance also states that long term bareboat or demise charters should be treated as financial leases. General information about charters and residency criteria are also included in the note.

The International Financial Reporting Standards 2016 (IFRS 16) came into force in 2019 and changes the way in which all public limited companies (and other firms that report according to IFRS) report their finances. The major change is the way that operating leases are recorded by lessees. The new standards require companies to recognise assets and liabilities for all leases with a term of more than 12 months unless the underlying asset is of low value. The previous guidance stated that a lessee had to treat financial and operating leases separately where financial leases were included on the balance sheet but operating leases were not. This has proven challenging for businesses as they struggle to distinguish between operational and financial leases and could thus underreport operational leases, for example of ships and aircraft, while simultaneously overreporting financial leases. In the UK the problem is fragmented because multinational companies are using IFRS 16 standards but there are small and medium-sized enterprises using the UK’s Generally Accepted Accounting Standards (GAAP) called FRS 102 which is in line with ESA 10.

ONS has carried out analysis to determine to what extent these changes to the recording of leases by companies will affect the UK’s National Accounts data. The IFRS 16 changes may potentially affect long-term loans/impact on balance sheets, trade, Financial Intermediation Services Indirectly Measured (FISIM) and interest, but this list is not exhaustive and there may be other implications. Some of the largest respondents to ONS surveys are being contacted to assess the impact on their returns; so far there has been a mixed response. ONS are looking to extend the analysis to gain a clearer idea of whether businesses can exclude operational leases from their reported assets and liabilities. If this is possible then survey guidance will be amended to support this.
9.12 Case study Iceland: Compilation of statistics on sea and air transport in Iceland

9.12.1 Summary
Statistics Iceland reviews four primary data sources for trade in vessels and aircrafts: transport authorities, media, questionnaire and customs data. Each vessel/aircraft can be up to 10% of the monthly import or export. The review of each data source takes place monthly and statisticians contact relevant enterprises as soon as possible. Precise and timely data is key for Iceland’s trade data.

In the summer of 2018, one of Statistics Iceland data sources flagged a vessel. After an investigation, the Netherlands was determined to be the country of economic ownership according to the IAS 17 methodology. Statistics Iceland informed colleagues in the Netherlands about the vessel. In the case of Statistics Iceland, local companies operating outside of Iceland is the biggest data gap in current data collection methods. Information from statistical units in other countries can decrease that gap.

9.12.2 Introduction
This case study shows how important consistency and transparency in methodology is to small economies. It also emphasizes the importance of communication and co-operation between countries to increase the overall quality of vessels and aircraft trade data.

Fishing and transport industries are responsible for Iceland’s international trade in vessels and aircrafts. Both industries play a large role in Iceland’s economy. Fishing is traditionally an intrinsic part of Icelandic culture and one of the main pillars of the Icelandic economy. It is responsible for almost 40% of Iceland’s total export with almost 300 companies listed as operators of fishing vessels greater the 15GT. As an island, Iceland also relies heavily on both air and sea transport for goods and people. There are fewer enterprises in the transport industry then in the fishing industry. The experience of Iceland is however that the transport industry, in regards to trade with vessels and aircrafts, is more complex than the fishing industry. Investment in these two important industries, transport and fishing, do have large impact in a small economy. A single aircraft can be almost 10% of monthly export/import while a vessel can be around 5% of monthly import/export. Stakeholders also closely monitor these industries. Methodology has to be clear and consistent. In publications, other trade numbers does not hide errors in vessels and aircraft and any inconsistencies prompt a flood of inquiries to Statistic Iceland. Transparent methodology based on information not subject to confidentiality is key.

9.12.3 Scale and structure of the industry
Statistics Iceland does not use VAT or enterprise’s balance sheets as a data source for trade in goods statistics. National accounts uses balance sheets and tax reports. This is however not a timely source and is more used as a reconciliation tool. Statistics Iceland gather data by direct communication with the enterprises. Both National Accounts and Balance of payments then use trade in goods data for international trade in vessels and aircrafts.

The changes from IAS 17 to IFRS 16 has minimal effects on how Statistics Iceland utilizes data sources. Domestic accounting standards adopted the changes in IFRS 16 relating to leases, therefore all enterprises are subject to the changes. The changes in accounting standards however increase the need for communication between Statistics Iceland and relevant enterprises, especially with enterprises that have both operational and financial leases.

9.12.4 Methodology and data analysis
There are four main data sources; transport authorities, media, questionnaire and customs data.

- Transport authorities: Statistics Iceland has access to an online ship register. This live up to date database shows all vessels registered and unregistered in Iceland (Icelandic flag). Monthly, Statistics Iceland also receives a summary of changes in the aircraft registry in the previous month.

- Media: Media is an important source of information, especially for fishing vessels and publicly traded companies. Iceland has two dedicated publications to fishing activities. Trade with fishing vessels will appear in these publications. The mainstream media follows the larger...
companies closely. Because trade with large ships and aircrafts are relatively large compared to the Iceland’s economy the mainstream media follows these industries closely. Additionally publicly traded companies have their own investor relation websites that give valuable information.

- **Questionnaire:** Statistics Iceland has identified 40 key enterprises in the maritime and aviation field. Monthly they receive a questionnaire, asking if there have been any vessels/aircrafts bought or sold. Each enterprise has identified a primary contact with Statistics Iceland for this questionnaire. This allows for both easier communication on methodology and a pipeline to verify information flagged by other data sources. Statistics Iceland employees also visit the larger players in the market regularly depending on company size, trade volume and information publicly available. Other information sources such as media can often trigger these visits. A new company contact can also trigger visit, especially when companies are more private and media coverage is not available (e.g. privately owned companies). These visits often combine the need of trade in goods as well as trade in services, to align data collection.

- **Customs:** Customs data can also provide information on vessels and aircrafts. To make sure customs data complies with Statistics Iceland methodology for vessels and aircrafts as well as prevent duplications, monitoring the data is key. This is not a primary source of information for Statistics Iceland. There is often no customs declaration and if there is, enterprises do not complete them in a timely manner. Therefore, the main reason to monitor customs data is to prevent duplications in the trade data.

These data sources cover the largest enterprises in Iceland and therefore larger part of the trade in vessels and aircrafts. The main gap in data gathering is Icelandic companies operating outside of Iceland. Statistics Iceland has started a project with Eurostat concerning Lloyd’s maritime data that can hopefully close the gap and increase data coverage. Statistics Iceland would like to suggest another method to cover this data gap. Better communication and cooperation between statistician responsible for vessels and aircrafts trade data in different countries.

In the summer of 2018, an Icelandic bank listed a large advertisement in a business publication congratulating an enterprise for a new cargo vessel. This triggered an investigation within Statistics Iceland. The investigation led to an Icelander linked to the ownership of the vessel who told its story. A Dutch company, owned by three people with two different nationalities, bought the vessel. The company then sold the vessel with a sale/leaseback arrangement to one country and flagged the vessel to the third country through a bareboat lease. A subsidiary of the original Dutch buyer then leased the vessel. The vessel is on the subsidiary’s balance sheet. According to Statistics Iceland methodology, this was a Dutch vessel. The problem being, how should Statistics Netherlands have spotted this vessel? In this case, Statistics Iceland contacted Statistics Netherlands to inform them about the vessel. For Statistics Netherlands other data gathering methods did not cover this information. Increased communication between statistical agencies can therefore be key to close a known data gap.

### 9.12.5 Statistical treatment of the industry

To understand why Statistics Iceland considered Netherlands to be the country of economic ownership it is important to review the methodology used to reach the conclusion. Trade in goods manuals give two methods to establish economic ownership for vessels and aircrafts, IAS 17 and the indicative criteria.

Statistics Iceland follows the IAS 17, which means if a vessel/aircraft is on an enterprises balance sheet according to IAS 17 accounting standards the country of that enterprise is the country of economic ownership. As a rule of thumb, if an enterprise owns or leases a vessel/aircraft through a financial leasing arrangement, the enterprise is the economic owner. If the vessel aircraft is however under an operational leasing arrangement, the enterprise is not the economic owner. The methodology has not changed with the introduction of IRFS16 standards that replaced IAS 17 in the beginning of 2019.

The indicative criteria however put forward a number of questions to evaluate the economic owner. The method shows statisticians where to look (e.g. risk and benefit, maintenance etc.) It however does not put weight on the points (no decision tree) which leads to inconsistency between statisticians, not only between countries but also between different individuals within the same national statistical
agency. As previously mentioned, investments in vessels and aircrafts can be a significant percentage of monthly export/import. The IAS 17 method is consistent, transparent and easy for users to understand. It also requires minimum information from enterprises that supports confidentiality.

The biggest possible improvement to the current process at Statistics Iceland is documenting the statistical treatment of each vessel/aircraft flagged by data sources. Adding this database to the process supports traceability as well as consistency between import and export data.

### 9.12.6 Conclusion

Statistics Iceland is in the position to map and communicate regularly with enterprises investing in vessels and aircrafts. Data sources therefore only raise flags that lead to increased communication with investors for information needed for trade data. Statistics Iceland uses the IAS 17 methodology to determine the country of economic ownership. The methodology provides the consistency and transparency needed for a small economy, both for data providers and users. Current data sources do not sufficiently cover Icelandic enterprises operating outside of Iceland. Statisticians should be conscious that increased communication and co-operation between countries’ statistical units is an under-utilized data source that can benefit everyone to minimize this data gap.
9.13 Case study Norway: Compilation of sea and air transport in the Norwegian national accounts and balance of payments

9.13.1 Introduction

The objective of the case study was to give an overview of how Norway compile statistics regarding both ocean and air transport. Different countries have different sources for compiling statistics for these industries. In the case of Norway, Statistics Norway’s business register stands out as an important source and tool for compilation and makes our practice different compared to other countries.

In the following a brief introduction to the ocean and air transport industry in Norway is given. Chapter 2 describes the above-mentioned business register along with other important infrastructure, while Chapter 3 outlines the main methodical principles for our compilation of both national accounts (NA) and balance of payments (BOP) statistics for these industries. In Chapter 10.12.12 the main sources and estimation methods are presented.

9.13.2 Ocean transport in Norway

Ocean transport has for generations been, and still is today, an important part of the Norwegian economy. The relative importance has been reduced the last decades, but sea transport services still account for about one third of total exports of services from Norway and about 10 % of total exports. Value added and employment in the ocean transport industry both adds up to just above 1 % of the national totals.

This relative importance can be traced in the statistical system, and Statistics Norway has a long tradition for collecting information on the shipping industry. In fact, as early as in the middle of the 19th century data on ocean transport were collected and presented together with merchandise trade figures. In 1902 Norwegian shipping companies were obliged by law to report to Statistics Norway, information on their freight income from international ocean transport activities (cross trade, cabotage). In the 1970s reporting of operating costs was also introduced. In all these years the Norwegian shipping companies were active in various shipping segments in both short sea and deep-sea trade.

Today more than 90 % of the activity of Norwegian operated vessels take place between foreign ports. It therefore has a noticeable impact on the Norwegian trade balance with the rest of the world. According to the business register 1,718 enterprises were active in sea transportation in 2017 and Norway is considered the 5th most important shipping nation of the world.

9.13.3 Air transport in Norway

The air transport industry has become an important part of the Norwegian economy over the years, mainly because of the emergence of two large international airline companies. Along with these two, the industry consists of one medium-sized airline company and many smaller companies. According to the business register, 98 enterprises were active within the Norwegian air transport industry in 2017, of which 75 within NACE 51.1 Passenger air transport. The output of the airline industry accounts for about 1 % of the national totals.

The two large airlines in Norway are the Scandinavian Airline System (SAS) and Norwegian. SAS is the oldest one. It was established right after the second world war in 1951. Today it is the 10th largest European passenger airline. Norwegian, which is the 8th largest passenger airline in Europe, was founded as Norwegian Air Shuttle (NAS) in 1992. In 2002 its first international flight took place (Stavanger – Newcastle) and in 2006 its first international base was established (Warszawa – shut down 2010).

9.13.4 Statistical tools and infrastructure

Business register – important infrastructure

Statistics Norway’s business register – the Central Register of Establishments and Enterprises (CREE) is an important instrument of the Norwegian statistical system. It is closely linked to the Central Coordinating Register of Legal Entities (CCRLE), which is made up by all units obliged to register in any of several associated administrative registers. CCRLE cover all legal entities whose turn-over
exceeds NOK 50,000 (= EUR 5,000), i.e. a relative low threshold.

The main purpose of CREE is to serve as a tool for Statistics Norway in its production of statistics on economic activities. More precisely the register shall supply:

- Definitions and construction of statistical units;
- Industry and institutional sector classification of units;
- Link to corresponding units in other administrative registers;
- Tool for planning, running and coordinating statistical sample surveys;
- Tool for production of industry-based statistics;
- Source of information for analyses on enterprises and establishments.

All information used for updating and maintaining the register is collected under the Norwegian Statistical law. The main sources for updating CCRLE and thus CREE are:

- VAT Register;
- ‘A-ordningen’, system for employers to report information about income and employees;
- Corporate Taxation Data Register;
- County Governors’ Register of Foundations;
- Register of Stockholders;
- Register of Business Enterprises.

In addition, the CREE is updated with information obtained from the direct contact with the units, studying annual accounts and reports from the Norwegian Register of Company Accounts and the integrated monitor system for CREE itself. The frequency for updating varies from daily (CCRLE) through weekly (VAT-register) and monthly (Register of employees), to annual (Register on Stockholders).

The figure below gives a simplified illustration of how the Norway’s CCRLE and Statistics Norway’s CREE works and interacts.

Figure 42: Central Register of Establishments and Enterprises and its environment

Source: Statistics Norway

The information on enterprises and establishments contained in the register can be classified into the following categories:

- Unique identification codes (enterprise number, establishment number, organisation number)
• Descriptive characteristics (name, address, activity and sector codes, status, type of organisation, telephone number, e-mail address)
• Statistical variables on size (turn-over, employment, number of employees)

This information is used both for sampling purposes, dispatch of survey forms and the estimation of total values for the whole population.

Censuses and sample surveys

The business register CREE contains administrative information on all producing units (a.o. enterprises and establishments) within each detailed NACE industry and thus constitute the starting point of two coordinated surveys on the transport industries:

• Firstly, the tax return statement, which gives an overview of incomes, costs and balance, that all units are obliged to submit to the tax authorities, is electronically forwarded to Statistics Norway.
• Secondly, a sample survey is conducted to catch necessary information not found in the administrative tax return.

The tax return statement, combined with the sample survey, form the basis for the Norwegian structural business statistics (SBS) and at the same time serve special needs of the national accounts and balance of payments.

Based on the census of all tax returns the first priority has been to map the total revenues and costs of the transportation companies, to correctly estimate their contribution to the Norwegian GDP on the production account of the national accounts. Secondly, high priority has been given to the task of allocating shares of operating revenues and costs (i.e. output and intermediate consumption) on exports and imports respectively, for use in the RoW account and balance of payments. Further, priority is given on the distribution of income (output, exports) and costs (intermediate consumption, imports) on type of product (e.g. type of transport service on the credit side, and information on fuels and other cost elements on the debit side). The allocation of revenues and costs on exports and imports, and on products, is however, based on the sample survey data. A subsample of the population of the respective industries are surveyed. As the different industries are different by nature the surveys are tailor-made to best fit each individual industry. The common denominator is that the companies have to specify their revenues and expenditures on type of product. Some industries typically interact more with the rest of the world and are hence asked to report whether the revenues and expenditures involve resident or non-resident companies as counterparties, which again is used to determine exports and imports.

9.13.5 Main methodical principles

Our statistical mandate is to present a simplified and understandable picture of a complex economic world, both through national accounts and balance of payments. In doing so we make assumptions, and we do estimations where good sources are hard to find or difficult to make use of. All to make consistent and symmetric figures across nations. In order to so we make use of the same framework and definitions. In the following the most important principles for the shipping and airline industry are addressed.

9.13.6 Economic ownership and the operator principle

Identifying transportation activities

Apparently, the geographical allocation of ocean and air transport services is a statistical problem from the fact that the production of the transport service can be said to take place wherever is the position of the vessel or airplane. Quite often that will, within one and same accounting period, be inside different countries or even outside any national borders, in international waters.

In this respect it is important to acknowledge that ships and airlines themselves are not economic or institutional units in the SNA and BPM, rather (ships and airlines are) economic assets in their capacity as factors of production and thus subject to ownership by economic units\(^{(95)}\).

\(^{(95)}\) This does not contradict with a data collection system in which the ship or airplane is chosen as the unit for which data are reported. For some analytical purposes it might even be preferable to identify each single ship or airplane as an independent production unit.
In addition, statistics on shipping and airline activities constitute a thrilling challenge due to rather intricate modes of organizing ownership, financing and running operations in these industries. It is not unusual that the operator of a ship is resident in one country, the owner resident in another country, a manager resident in a third country and on top of that, the ship is registered in a fourth country. Similar organization structures are also present in the airline industry.

An adequate statistical system must be able to describe in a consistent way the transactions related both to the transportation activity and to the change of ownership of vessels or carriers. Put it in another way, one clearly needs criteria to establish how to allocate the production activity and the income generated between countries, and how to allocate the factors of production employed (ships, airplanes, crew members) in this activity. Furthermore, these two questions should be answered separately as both principally and in practice it is possible for a company to produce a transport service either by employing its own equipment or by using rented equipment.

According to international recommendations, the transportation activity, and thus the income generated, should be attributed to the country in which the operator of the vessel, i.e. the principal organizer of the production of a transport service, is resident. This may not be quite straightforward, due to the involvement of several economic agents. One fundamental definition should be kept in mind however: One single piece of transportation service, e.g. transporting a good from point A to point B, can be produced by one single institutional unit only. Accepting this implies that other units involved are the producers of other kind of services, i.e. support services, management services, hiring services, distribution services etc.

In the practical work the estimation of data on transportation services rely on the assessments made by the shipping companies in their reporting. The freight income earned from the transportation services they provide to the market and that are recorded in their business accounts, and subsequently are reported to Statistics Norway and subsequently recorded as the output value of transportation services in the national accounts. Figure 44 illustrates the complexity of international organization of ocean shipping activities.

**Figure 43: Ocean transport – organization**

![Diagram of ocean transport organization](source: Statistics Norway)

9.13.7 Operating and supporting units – an example from the airline industry

As the shipping industry the airline industry often has an intricate way of organizing its ownership, financing and activities. In the airline industry it is common to see the same company with presence in several countries in terms of different units which the industry itself often refer to as bases. These bases could either be separate legal entities or branches\(^{(96)}\). In any case it is important to clarify what

\(^{(96)}\) When a non-resident unit has substantial operations over a significant period in an economic territory, but no separate legal entity for those operations, a branch may be identified as an institutional unit.
type of activities the base contributes with and to whom, what type of decisions are usually made by the base etc.

The administrative head quarter of Norwegian Air Shuttle – NAS – is located in Oslo. Outside Scandinavia the company has today daughter companies and bases in several countries on different continents, e.g. Ireland, UK, Spain, Thailand and USA. Four units have been awarded with Air Operator Certificate (AOC), an international permission to operate commercial airlines. These are the mother company NAS in Oslo, Norwegian Air Norway AS (NAN), also located in Oslo, Norwegian Air international Limited (NAI) located in Ireland and Norwegian Air UK Limited (NUK) located in the UK.

All daughter companies and bases can be considered institutional units contributing to the GDP in the country in which they are located. A question of principle to be asked is however, which of all these related units are operators of mobile capital, i.e. producers of air transport services, or are some of them support units only, providing support services to the operators? In general, an operator must be able to take decisions related to the use and movement of the equipment, e.g. flight schedules, which airplanes to use, crew members etc., and even fix the prices. In practice the definition of operator must to some degree be based on judgements and conventions. Regarding Norwegian and taking into the account of the information on AOC, the four corporations mentioned above have been regarded as operators. In the case of the Irish company, NAI, the Central Statistical Office of Ireland (CSO), has reached the same conclusion: NAI is an Irish producing unit offering air transport services to the market. All the other units thus are treated as supporting units producing services other than air transportation in the countries where they are located.

9.13.8 Seamless operations – the pro-rata principle

There are in existence institutional units for which it is difficult or unreasonable to determine one unambiguous country of residence. The reason is that the economic activities of the units are performed on two or more countries’ territories and the activities are organised in such a way that is impossible to identify, either real or notional, separate institutional units (affiliates) in each of the countries involved. In such cases of seamless operations, the activity is allocated to the countries involved in accordance with their ownership to the activity. One such case is the Scandinavian Airlines System (SAS).

SAS has ever since its establishment as a multinational consortium been a Scandinavian cooperation, with strong involvement from three different countries’ governments. The consortium agreement of 1951 established the following ownership shares: Sweden 3/7 and Denmark and Norway 2/7 each. The government ownership is organised through noted national enterprises with 50 % central government ownership share. The agreement was the fundament of the joint aviation policy of the Scandinavian countries.

The agreement laid down the operational principles of the joint aviation activity and established its limits. It also governed the registration of aircraft in the three countries to be in accordance with their ownership shares. According to the agreement SAS is to perform all air services and aviation activities on behalf of the national owner companies, which act solely as owners. The national owner companies were not performing any aviation activities.

The national accounts and balance of payments statistics in the three countries follow the same rules of recording of the SAS. Both capital stocks and transactions are allocated to the respective countries in accordance to their ownership shares (the 7th principle), which has been supported by international recommendations. The consequence has been that the Norwegian national accounts include air transportation activities that on permanent basis are operated and performed outside its economic territory.

Since 1999 SAS has been subject restructuring in several rounds to adapt to changing economic and political environments. The successive re–organization has not however changed the fundamental criteria underlying the principles of the recording of the joint SAS consortium unit in the national accounts.

Figure 45 presents todays organisational map of SAS. As seen from the figure the operational aviation unit (SAS Consortium) is owned by the three national companies with the same shares of ownership as initially when founded. This has been the argument for keeping the prorate model even if there has been a change in ownership to each of the three national companies. Today the Norwegian government has no ownership shares in SAS.
9.13.9 Exports of freight services

In general, exports of services represent transactions between a resident and a non-resident unit. Normally, this will be reflected in contracts, payment flows and in the accounting books of the two parties, and generally national accounts and balance of payments will record cross border economic flows accordingly.

There is however one important exception to this general principle of recording. When goods are transported from Norway to other countries, by Norwegian shipping companies for example, the transportation service will by convention always be recorded as exports, regardless of who is the partner to the shipping company in the transport contract and who is paying for the service. The reason for this is the conventional principle chosen on the recording of exports of goods as free on board (FOB), i.e. exclusive of transportation costs. The implication of this convention is that the consumer of the freight service always will be the importer of the goods. And accordingly, transportation of goods from Norway to other countries by domestic shipping companies, will, by definition, always imply exports of freight services.

9.13.10 Ships and airplanes – capital of production

As for the geographical allocation of the ship or airplane per se, one should decide the country of residence by looking for the institutional unit to whom the ownership of the vessel or airplane can be attributed. Here the distinction between juridical and economic ownership is of importance. In shipping, but also in aviation, the challenge is first and foremost to be able to single out and ‘see through’ ownership of brass-plate companies (special purpose entities). Many ships and airplanes are juridically owned by brass-plate companies in countries having established registers offering flags of convenience. Very little activity, if any at all, is conducted in the country of registration that can be said to represent transportation activities. In such cases one should look beyond the juridical ownership and identify the ‘real’ or economic owner.

The economic owner of a ship or an airplane is the operator, deemed to be the institutional unit deciding on its utilization in either employing it for own transportation activities, or hiring the ship out to other
operators. The operator is awarded with the operating surplus generated, but also will take the losses occurred. Behind the operator we will find owners of share capital of the company (shareholders). The shareholders will however have no ownership to neither the shipping or aviation activity as such nor the vessel or airplane itself. They are creditors, remunerated with the dividends they receive for putting their financial capital at the operator’s disposal.

9.13.11 Crew members – compensation of employees

The total figure for compensation of employees (COE) in the ocean and air transport industry is based on the accounting-based information given in the censuses described above together with information from a monthly census survey on employment and salaries called ‘A-ordningen’. All Norwegian companies with at least one employee must answer the survey. Some crew members however, are working onboard while employed not by the shipping or airline company, but rather by a hiring company. In those cases, the costs to the crew members are treated as a purchase of a hiring service and recorded as intermediate consumption.

The residency of the employees must be addressed to be able to estimate flows of compensation of employees to the rest of the world. Persons, including sailors, are to be allocated to the country in which their center of economic interest lies, which normally will be the country in which the household they belong to are resident. The question of residence thus is linked to persons’ capacity as consumers and not in their capacity as suppliers of labor.

So, the question is how to separate between COE for resident crew and COE for non-resident crew. Prior to the 1995 revision of the Norwegian national accounts (implementing the ESA 1995), all crew members on Norwegian operated ships were regarded as residents, implying that COE in total was recorded as income of the domestic household sector. Two offsetting transactions were introduced. First, a part of the wages paid to crew members with other nationality than Norwegian, was assumed consumed abroad and recorded as part of the item Travel, debit. The second offsetting transaction was that the remaining part of COE paid to crew members with non-Norwegian nationality was recorded as a transfer from the domestic household sector to the rest of the world. Today however, all non-Norwegian crew members are regarded non-residents and the corresponding COE is fully recorded as COE to the rest of the world in the Norwegian national accounts and balance of payments statistics.

9.13.12 Sources and methods of estimation

Up till now the statistical tools and the most important principles has been outlined. This Chapter will describe our sources and compilation methods in more detail, both for national accounts and balance of payments statistics.

9.13.13 Output and intermediate consumption

The tax return mentioned form the basis of the level of total output and intermediate consumption in both the ocean and airline industry. Essentially all units (some units with revenues below 5,000 Euros may be exempted) are obliged to submit this statement to the tax authorities. The statement is more or less equal to the companies’ income statements. The total level of operating revenues for the companies in the ocean transport industry gives the level of output in the production account in the national accounts. While the total level of operating costs gives the level of intermediate consumption. The same holds true for the air transport industry.

Furthermore, the output and intermediate consumption is broken down on type of product. Information on type of product is gathered through sample surveys. The department for structural business statistics survey a subsample of the industry which lines out what products the different industries mainly produce and use as input factors. As mentioned the different surveys are tailor-made for the different industries, both regarding types of questions but also through the use of words, phrases and lingo the industry is familiar with.

As an example, the companies in the shipping industry are asked to break down their revenues on different types of freight contracts, e.g. voyage charter contracts, contract of affreightment, line shipping contracts, time charter contracts etc. In addition, they are asked to specify what type of ships they operated in relationship to these freight contracts, e.g. bulk carriers, container ships, gas tankers, oil tankers etc. This information is firstly used to divide the output into rental and shipping services, secondly to divide the shipping services into different types of transport services related to what type
of cargo the ship is carrying. While for the intermediate consumption the shipping companies are asked to break down their operational costs on different types of bunker fuels, docking costs, costs related to the repair and maintenance of ships etc.

9.13.14 Transactions related to imports and exports

Exports of transport services related to goods

As described above, we are to follow the conventional principle of recording exports of goods as free on board. This implies that transportation services related to exports of goods always will be traded, independently of whether both the consumer and provider of the transportation service are residents. In order to determine exports of freight services in line with this principle, the shipping companies are asked to estimate their revenues related to the movements of their ships, for each separate contract type. These questions are in the same sample survey as described above. As an example: If a shipping company has revenues from voyage charter contracts one year, they have to give an estimate of how much of these revenues are from ships going between

- domestic ports;
- foreign ports;
- foreign and domestic ports.

A shipping company solely involved in cross trade will have all their freight revenue from ships going between foreign ports, and all their freight revenue will be counted as exports in the balance of payments.

Regarding exports of rental services such as operational leasing (typically time charter agreements) the conventional principle of exports is to be followed, i.e. transactions between a resident and non-resident unit. For questions regarding this matter the shipping companies are hence asked whether the counterparty is a resident or a non-resident in the survey.

Imports related to intermediate consumption

The shipping and airline industry operate primarily outside Norwegian borders and hence purchase a large part of their input factors from non-residents. This is to be included as imports in balance of payments. Information on residency related to intermediate consumption is gathered in the industry specific sample survey. Similar to how shipping companies have to estimate their revenues related to ship movements, shipping (and airline) companies are asked to break down their different costs on whether they are purchased from resident or non-resident counterparties.

Exports and imports of rental services of airplanes

Regarding leasing of airplanes to and from non-residents, information from the External trade in services statistics is being exploited. This is a quarterly sample survey run by the department for international trade in Statistics Norway. The statistics show Norwegian non-financial corporations’ revenues on exports of services, and expenses for imports of services. The most important airline companies are included in the sample and are asked to state their revenues and expenses to leasing/renting of airplanes with and without crew, where the counterparty is non-resident.

Estimate gross capital formation in ships and aircraft

Ships are the main capital good used in the shipping industries, constituting by far the larger share of the total purchases for gross fixed capital formation (normally more than 90 %) in these industries. To make estimations on the fixed capital formation in shipping industries several sources are at hand. First, the accounting based SBS supplies balance sheet information, including data on purchases and sales of capital equipment. Second, information on exports and imports of ships, both newly built and old tonnage, is given by the international trade in goods statistics (ITGS), being the primary source for exports and imports of goods in balance of payments and national accounts. Third, the SBS on manufacturing industries combined with the PRODCOM survey on manufactured goods provides data on the domestic supply of new built tonnage. In sum this provides a sound basis for estimation of investments in ships in the shipping industry. In addition, using commodity flow analysis as part of the process of balancing supply and use of ships in the detailed supply and use tables of the national accounts, is helpful.
Figure 45: Commodity flows for ships

Source: Statistics Norway

The figure above shows the commodity flows of ships between Norway and the rest of the world. The arrows illustrate the main transactions in ships outside the water transport industry itself. The arrow marked in red is irrelevant to Norwegian statistics. Ships are naturally also purchased by other industries besides NACE 50 Water transport, e.g. NACE 77 Hiring and leasing, but those are of less importance.

To identify companies that export and/or import ships the ITGS use various sources like ship registers, customs declarations, the media and other sources. All shipping companies identified to have transactions in ships with non-resident counterparties are asked to answer a special form. In this form the companies have to specify the new and previous owner, at which price the ship was bought/sold, from/to which country etc.

The sources and methods are very much the same for the airline industry when it comes to airplanes. One difference however is that there is no industry for building aircrafts in Norway. Hence the investments in the airline industry is even more connected to imports and exports of aircrafts than what is the case for the ocean transport industry.
Explanation of statistical terms

**The balance of payments (BOP)** is a statistical summary of the transactions of a given economy with the rest of the world. It comprises three elements:

- the current account covers international transactions in goods, services, income, and current transfers;
- the financial account deals with transactions involving financial claims on, or liabilities to, the rest of the world, including international purchases of securities, such as stocks and bonds;
- the capital account covers international capital transfers (e.g. debt forgiveness) and the acquisition/disposal of non-produced, nonfinancial assets (such as patents).

**International investment position (IIP)** is a statistical statement that shows at a point in time the value and composition of:

- external financial assets of residents of a country that are claims on non-residents and gold bullion held as reserve assets,
- external financial liabilities of residents of a country to non-residents.

The difference between a country’s external financial assets and liabilities is the country’s net international investment position (NIIP), which may be positive or negative. Respectively, the NIIP provides an aggregate view of the net financial position (assets minus liabilities) of a country via-à-vis the rest of the world. A positive NIIP (assets higher than liabilities) qualifies a country as net creditor, a negative NIIP (liabilities higher than assets) as net debtor nation, allowing for measuring the extent of external financial exposure of a country.

**International trade in services statistics (ITSS)** currently covers the monetary indicators for trade in services broken down by the service categories (e.g. computer services, legal services etc.) and by partner countries. These statistics come from the transactions recorded under the country’s balance of payment, hence the transactions that take place between economy’s residents and non-residents.

**International trade in goods statistics (ITGS)** measure the value and quantity of goods traded between EU Member States (intra-EU trade) and goods traded by EU Member States with non-EU countries (extra-EU trade). ‘Goods’ mean all movable property, including electricity.

The providers of statistical information distinguish between intra and extra EU-trade. In the first case, all taxable persons are those reporting transactions exceeding a certain threshold fixed by member states; in the second one, the providers of statistical information are all natural or legal persons lodging a custom declaration.

Eurostat publishes aggregated and detailed data for ITGS: the former comprise monthly and annual data with a breakdown of large product categories, the latter refer to monthly trade statistics at the most detailed level of several products.

**Foreign direct investment (FDI)** is a category of cross-border investment associated with a resident in one country having control or a significant degree of influence on the management of an enterprise that is resident in another (BPM6 paragraph 6.8). Essentially, a resident entity in one country seeks to obtain a lasting interest in an enterprise resident in another. A lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise, and an investor’s significant influence on the management of the enterprise.

A direct investment enterprise is one in which a direct investor owns 10% or more of the ordinary shares or voting rights (for an incorporated enterprise) or the equivalent (for an unincorporated enterprise).

FDI flows and positions: through direct investment flows, an investor builds up an FDI position that has an impact on an economy’s international investment position. This FDI position (or FDI stock) differs from the accumulated flows because of revaluation (changes in prices or exchange rates), and other adjustments like reclassifications, changes in financial assets arising from entities changing their economy of residence, debt write-offs or debt cancellation.
European system of national and regional accounts (ESA 2010) is an internationally compatible European Union's accounting framework for a systematic and detailed description of an economy. According to Art. 5 and Art. 13, the regulation on ESA 2010 came into force on the 20th day after its publication on 26 June 2013 and was applied to transmissions of data from 1 September 2014. The ESA 2010 differs in scope as well as in concepts from its predecessor ESA 95 reflecting developments in measuring modern economies, advances in methodological research and the needs of users. The structure, the concepts and definitions of the ESA 2010 is consistent with the worldwide guidelines on national accounting set out in the System of National Accounts 2008 (2008 SNA).

System of National Accounts, 2008 (2008 SNA) is a statistical framework that provides a comprehensive, consistent and flexible set of macroeconomic accounts for policymaking, analysis and research purposes.

International Association of Classification Societies (IACS) is a non-governmental organization that establishes and maintains technical standards for the construction and operation of ships and offshore structures.

International Maritime Organization (IMO) is the United Nations specialised agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships. The IMO is the global standard-setting authority for the safety, security and environmental performance of international shipping. Its main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and universally implemented.

Owner - the company that has legal title to the equipment (ship) (BPM6 CG paragraph 12.27).

Legal (registered) owner - person or company in whose name a ship is validly registered in the ships register. In most (but not all cases) this is a single purpose company/vehicle that holds an asset (the ship).

Beneficial owner (this is a unit usually mentioned in the commercial data bases) – charters and holds the vessel in trust for the legal owner. The beneficial owner holds the vessel in trust for the registered/legal owner for the sole purpose of flying another flag than the flag of the ships–register (so called bareboat flagging out). In most of the cases this company is 100% owned by the registered/legal owner.

Group Owner - a group owner provides the controlling interest behind a ship and the ultimate beneficiary from the ownership.

Operator = Ship-operating company = Ship manger – the company that controls the operation and movement of the equipment (the ship), provides the transport service and receives revenues for that activity (BPM6 CG paragraph 12.27).

Economic ownership/owner – the economic ownership is defined as the right of a person to claim the benefits associated with the use of a ship in the course of an economic activity (providing the transport service) by virtue of accepting the associated risks. The agreed principle to recognise the economic owner of ships is that it is the substance of the transaction that has to be considered, not the label.

The ship management company pursues various activities, among them crew management, technical management, commercial management, ownership management. In the standard case, they are providing services to the economic owner of the ship.

Economy of residence of the operator – the country where the head office of the operator’s company
Beneficial ownership location – indicates the country in which the company that has the main commercial responsibility for the vessel is located. The country of beneficial ownership may be different from that in which the vessel is registered.

Ship residence – it depends on the residency status of the company operating the ship.

Beneficially owned fleet – ships whose ultimate ownership or control lies in a country, may be flagged in a different country.

Gross registered tonnage (GRT) – this is the ship's total internal volume expressed in 'register tons', each of which is equal to 100 cubic feet (2.83 m³). Gross register tonnage uses the total permanently enclosed capacity of the vessel as its basis for volume. Gross register tonnage was defined by the Moorsom Commission in 1854. GRT was replaced by gross tonnage when the International Maritime Organization (IMO) adopted The International Convention on Tonnage Measurement of Ships on 23 June 1969.

Gross tonnage (GT) – a unit-less index related to a ship's overall internal volume.

Deadweight tons (DWT) is a weight measure of a vessel's carrying capacity. It includes cargo, fuel and stores.

Financial leasing – A financial lease is an arrangement where the lessor is the legal owner of an asset but the lessee is the economic owner as the latter bears the operating risks and receives the economic benefits from using the asset in a productive activity. In return, the lessor accepts another package of risks and rewards from the lessee, in the form of repayments associated with a loan.

Operating (also operational) risks – According to the Basel II regulations operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.

Operational leasing – An operating lease is one where the legal owner is also the economic owner and accepts the operating risks and receives the economic benefits from the asset by charging for the use of it, in a productive activity.

Transport agreements to charter out a ship:
- Time charter agreement with the crew – The ship is fully crewed and equipped and the owner pays all the expenses and takes care of all the management activities. The operator pays only the daily rent/fee (the charter) to the owner. The Operator is NOT responsible for providing crew and/or maintaining the vessel properly (if this is not done properly by the owner, the operator may reduce charter hire or set the ship off-hire).
- The transactions of the activity should be recorded under transport and reported in the economy of residence of the legal owner of the ship.
- Time charter agreement without the crew – the owner leases the vessel to the operator, who is responsible for operating it, for equipping and maintaining the ship, and supplying the crew. The owner is just leasing out the ship itself.
- The transactions should be recorded under elsewhere and reported in the country of residence of the operator.
- Voyage charter – importer/exporter hire the vessel for a single voyage, he is not responsible
for the operation of the vessel and he is not considered as an operator. The transactions are recorded as freight under transport.

- Slot/space charters – a space in the vessel is hired. The transactions are recorded as freight under transport.

A detailed Glossary on shipping terms is available on the following website: http://www.iss-shipping.com/cargo/cargo_library_glossarya.asp.
### Acronyms and abbreviations

<table>
<thead>
<tr>
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<th>Full Form</th>
</tr>
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<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<tr>
<td>ACMI</td>
<td>Aircraft, crew, maintenance, insurance</td>
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<td>ALC</td>
<td>Aircraft leasing company</td>
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<td>AOC</td>
<td>Air Operator Certificate</td>
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<td>ATR</td>
<td>Aircraft transaction register</td>
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<td>BARECON</td>
<td>Bareboat charter</td>
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<td>BIMCO</td>
<td>Baltic and International Maritime Council</td>
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<td>BOP</td>
<td>Balance of payments</td>
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<td>BPM6 CG</td>
<td>BPM6 Compilation Guide</td>
</tr>
<tr>
<td>CCRLE</td>
<td>Central Coordinating Register of Legal Entities</td>
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<td>Cebr</td>
<td>Centre for Economics and Business Research</td>
</tr>
<tr>
<td>CFC</td>
<td>Consumption of fixed capital</td>
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<tr>
<td>CoA</td>
<td>Contract of affreightment</td>
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<td>CoE</td>
<td>Compensation of employees</td>
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<tr>
<td>CREE</td>
<td>Central Register of Establishments and Enterprises</td>
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<td>CRO</td>
<td>Companies Registration Office</td>
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<td>DAC</td>
<td>Designated activity company</td>
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<td>DfT</td>
<td>Department for Transport</td>
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<tr>
<td>EBIT</td>
<td>earnings before interest and taxes,</td>
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<tr>
<td>EBITA</td>
<td>earnings before interest, taxes and amortisation</td>
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<tr>
<td>EC</td>
<td>European Commission</td>
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<td>ECA</td>
<td>Export Credit Agency</td>
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<td>ECB</td>
<td>European Central Bank</td>
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<td>EFTA</td>
<td>European Free Trade Association</td>
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<td>ESA 95</td>
<td>European System of Accounts, version 1995</td>
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<td>ESA 2010</td>
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<td>ECSA</td>
<td>European Community Ship-owners’ Associations</td>
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<td>ESCB</td>
<td>European System of Central Banks</td>
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<td>ESS</td>
<td>European Statistical System</td>
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<td>EU</td>
<td>European Union</td>
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<tr>
<td>FAS</td>
<td>Finnish accounting legislation</td>
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<td>FISIM</td>
<td>Financial intermediation services indirectly measured</td>
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<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>GENCON</td>
<td>Uniform General Charter code name</td>
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<tr>
<td>GFCF</td>
<td>Gross Fixed Capital Formation</td>
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<td>GNI</td>
<td>Gross National Income</td>
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<td>IAA</td>
<td>Irish Aviation Authority Register</td>
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<td>IACS</td>
<td>International Association of Classification Societies</td>
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<td>IAS</td>
<td>International Accounting Standard</td>
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<td>International Accounting Standards Board</td>
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<td>IC</td>
<td>Intermediate Consumption</td>
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<td>IFRS</td>
<td>International Financial Accounting Standard</td>
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<td>IIP</td>
<td>International Investment Position</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<td>JOLCO</td>
<td>Japanese Operating Lease with Call Option</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>IMO</td>
<td>International Maritime Organization</td>
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<tr>
<td>ISTAT</td>
<td>Istituto nazionale di statistica, Italy</td>
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<tr>
<td>ITGS</td>
<td>international trade in goods statistics</td>
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<tr>
<td>ITSS</td>
<td>International Trade in Services Statistics</td>
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<tr>
<td>MIP</td>
<td>Macroeconomic Imbalance Procedure</td>
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<td>MoU</td>
<td>Memorandum of understanding</td>
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<tr>
<td>MRO</td>
<td>Maintenance, repair, overhaul</td>
</tr>
<tr>
<td>NA</td>
<td>National Accounts</td>
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<tr>
<td>NACE</td>
<td>Statistical classification of economic activities in the European Community</td>
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<td>NAS</td>
<td>Norwegian Air Shuttle</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>OECD BD4</td>
<td>4th edition of the OECD Benchmark Definition of Foreign Direct Investment</td>
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<tr>
<td>P&amp;L</td>
<td>Profit and loss</td>
</tr>
<tr>
<td>SAS</td>
<td>Scandinavian Airlines System</td>
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<tr>
<td>SBS</td>
<td>Structural business statistics</td>
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<tr>
<td>SPC</td>
<td>Single Purpose Company</td>
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<tr>
<td>SPV</td>
<td>Single Purpose Vehicle</td>
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<tr>
<td>STATEC</td>
<td>Institut national de la statistique et des études économiques du Grand-Duché de Luxembourg</td>
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<tr>
<td>UK CoS</td>
<td>UK Chamber of Shipping</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<tr>
<td>VAT</td>
<td>Value added tax</td>
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<tr>
<td>WB</td>
<td>World Bank</td>
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<tr>
<td>WTO</td>
<td>World Trade Organization</td>
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</table>
References and links


AWG Foreign Trade and Payments Act (Außenwirtschaftsgesetz - AWG)

AWV Foreign Trade and Payments Ordinance (Außenwirtschaftsverordnung – AWV)

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BIMCO (https://www.bimco.org/)

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BIMCO: Provides standard contracts and clauses templates for the shipping industry; https://www.bimco.org/

Bloomberg: Provides by vessel IMO number, vessel’s name, deadweight, flag, max draft, vessel type and for many vessels (i.e. some vessels have non available information) a name for the beneficial owner, last seen date, navigation status (under way/moored/anchored), region last seen, reported speed, current draft and destination;

Clarksons Shipping Intelligence Network: Provides detailed monthly freight and timecharter rates by type of vessel (tanker, bulker, etc.) and deadweight. Also provides indicative newbuild, secondhand and scrap vessel’s prices by type of vessel, deadweight and year build. Also provides aggregate data on new deliveries, orderbook and losses; https://sin.clarksons.net/home)


Danish International Register of Shipping;

Danish Shipping Facts and Figures, The Danish Shipping association;
https://www.danishshipping.dk/en/analysis/

Drewry: Provides detailed data and estimates on operating expenses by vessel type and build year, such as manning, insurance, stores and spares, maintenance, administrative costs and management fees. Also provides monthly freight and time charter rates by type of vessel and deadweight, as well as newbuild and secondhand vessel’s prices. Also provides aggregate data on new deliveries, orderbook and demolitions; https://www.drewry.co.uk/

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IHS Markit; https://ihsmarkit.com/index.html


International Maritime Organization (IMO), Global Integrated Shipping Information System: This
searchable research tool provides publicly accessible information about specific ships, ports, maritime security, and piracy. A free registration is necessary for basic access; https://gisis.imo.org/Public/Default.aspx


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http://www.iss-shipping.com/cargo/cargo_library_glossarya.asp

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MarineTraffic: Provides real time global ship tracking data, as well as vessels’ characteristics data; https://www.marinetraffic.com/


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Members of the task force on the recording and compilation of maritime transactions in national accounts and balance of payments

<table>
<thead>
<tr>
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<th>Institution</th>
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<td>Miriam TAGLIAVIA</td>
<td>Banca d’Italia, Italy</td>
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</tr>
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</table>
Annex: Examples of charter contracts

Barecon 2001
## "BARECON 2001" Standard Bareboat Charter

### Part I

<table>
<thead>
<tr>
<th><strong>25. Place of payment; also state beneficiary and bank account (Q. 11)</strong></th>
<th><strong>27. Bank guarantee bond (sum and place) (Q. 24)</strong> (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>28. Mortgagor(s), if any (state whether 12(b) or 16 applies; if 12(b) applies, state date of financial instrument and name of mortgagee (place of business) (Q. 13)</strong></td>
<td><strong>29. Insurance (hull and machinery and war risks) (state value acc. to Q. 11(b) or, if applicable, acc. to Q. 14(b)) (also state if Q. 11 applies)</strong></td>
</tr>
<tr>
<td><strong>30. Additional insurance, if any, for Owners' account limited to Q. 11(a) or, if applicable, Q. 14(b)</strong></td>
<td><strong>31. Additional insurance, if any, for Charterers' account limited to Q. 11(a) or, if applicable, Q. 14(b)</strong></td>
</tr>
<tr>
<td><strong>32. Latent defects (only to be filed in if period other than stated in Q. 12)</strong></td>
<td><strong>33. Brokerage commission and to whom payable (Q. 27)</strong></td>
</tr>
<tr>
<td><strong>34. Grace period (state number of clear banking days) (Q. 28)</strong></td>
<td><strong>35. Dispute Resolution (state of Arbitration must be stated (Q. 30); 30(a), 30(b), or 30(c); if 30(c), agreed place of Arbitration must be stated (Q. 30)</strong></td>
</tr>
<tr>
<td><strong>36. War cancellation (indicate countries agreed (Q. 26)</strong></td>
<td><strong>37. Newbuilding Vessel (indicate with &quot;yes&quot; or &quot;no&quot; whether PART II applies) (optional)</strong></td>
</tr>
<tr>
<td><strong>38. Name and place of builder (only to be filed in if PART II applies)</strong></td>
<td><strong>39. Vessel's co ownership no. (only to be filed in if PART III applies)</strong></td>
</tr>
<tr>
<td><strong>40. Date of Building Contract (only to be filed in if PART III applies)</strong></td>
<td><strong>41. Liquidated damages and costs shall accrue to (state party acc. to Q. 1)</strong></td>
</tr>
<tr>
<td><strong>PART I</strong></td>
<td><strong>(a)</strong></td>
</tr>
<tr>
<td><strong>(b)</strong></td>
<td><strong>(c)</strong></td>
</tr>
<tr>
<td><strong>42. Hire Purchase (indicate with &quot;yes&quot; or &quot;no&quot; whether PART IV applies) (optional)</strong></td>
<td><strong>43. Bareboat Charter Registry (indicate with &quot;yes&quot; or &quot;no&quot; whether PART V applies) (optional)</strong></td>
</tr>
<tr>
<td><strong>44. Flag and Country of the Bareboat Charter Registry (only to be filled in if PART IX applies)</strong></td>
<td><strong>45. Country of the Underlying Registry (only to be filled in if PART IX applies)</strong></td>
</tr>
<tr>
<td><strong>46. Number of additional causes covering special provisions, if any</strong></td>
<td><strong>PREAMBLE - It is mutually agreed that this charter shall be performed subject to the conditions contained in this Charter which shall include PART I and PART II. In the event of a conflict of conditions, the provisions of PART I shall prevail over those of PART II to the extent of such conflict but no further. It is further mutually agreed that PART III and/or PART IV and/or PART V shall only apply and only form part of this Charter if expressly agreed and stated in Boxes 37, 42 and 43. If PART III and/or PART IV and/or PART V apply, it is further agreed that in the event of a conflict of conditions, the provisions of PART I and PART II shall prevail over those of PART III and/or PART IV and/or PART V to the extent of such conflict but no further.</strong></td>
</tr>
</tbody>
</table>

**Signature (Owners)**

**Signature (Charterers)**

---

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PART II
"BARECON 2001" Standard Bareboat Charter

1. Definitions
In this Charter, the following terms shall have the meanings hereby assigned:

- "The Owners" shall mean the party identified in Box 5.
- "The Charterers" shall mean the party identified in Box 6.
- The Vessel shall mean the vessel described in Box 2 and with particulars as stated in Boxes 8 to 13.
- "Financial Instrument" means the mortgage, deed of covenant or other such financial security instrument as annexed to this Charter and stated in Box 23.

2. Charter Period
In consideration of the hire detailed in Box 25, the Owners have agreed to let and the Charterers have agreed to hire the Vessel for the period stated in Box 21 ("the Charter Period").

3. Delivery

(a) The Owners shall before and at the time of delivery exercise due diligence to make the Vessel seaworthy and in every respect ready in hull, machinery and equipment for service under this Charter.

(b) The Vessel shall be delivered by the Owners and taken over by the Charterers at the port or place of delivery stated in Box 19, in such ready state both as to the Charterers may direct.

(c) The Vessel shall be properly documented on delivery in accordance with the laws of the flag State indicated in Box 5 and the requirements of the classification society stated in Box 19. The Vessel upon delivery shall have her surveys up to date and trading and class certificates valid for at least the number of months agreed in Box 12.

(d) The delivery of the Vessel by the Owners and the taking over of the Vessel by the Charterers shall constitute a full performance by the Owners or all the Owners' obligations under this Clause 3, and thereafter the Charterers shall not be entitled to make or assert any claim against the Owners on account of any conditions, representations or warranties expressed or implied with respect to the Vessel but the Owners shall be liable for the cost of but not the time for repairs or renewals occasioned by latent defects in the Vessel, her machinery or equipment, existing at the time of delivery under this Charter, provided such defects have manifested themselves within twelve (12) months after delivery unless otherwise provided in Box 32.

4. Time for Delivery

(a) The Vessel shall not be delivered before the date indicated in Box 14 without the Charterers' consent and the Owners shall exercise due diligence to deliver the Vessel not later than the date indicated in Box 15.

(b) Unless otherwise agreed in Box 18, the Owners shall give the Charterers not less than thirty (30) running days' notice of the date on which the Vessel is expected to be ready for delivery.

(c) The Owners shall keep the Charterers closely advised of possible changes in the Vessel's position.

5. Cancellation

(a) Should the Vessel not be delivered latest by the cancelling date indicated in Box 16, the Charterers shall have the option of canceling this Charter by giving the Owners notice of cancellation within thirty-six (36) running hours after the cancelling date stated in Box 17, failing which this Charter shall remain in full force and effect.

(b) If it appears that the Vessel will be delayed beyond the cancelling date, the Owners may, as soon as they are in a position to state with reasonable certainty the day on which the Vessel should be ready, give notice thereof to the Charterers asking whether they will exercise their option of cancelling and the option must thereupon be declared within one hundred and eighty (180) running hours of the receipt by the Charterers of such notice or within thirty-six (36) running hours after the cancelling date stated in Box 17, whichever is the earlier. If the Charterers do not exercise their option of cancelling, the seventh day after the readiness date stated in the Owners' notice shall be substituted for the cancelling date indicated in Box 15 for the purpose of this Clause 5.

6. Trading Restrictions
The Vessel shall be employed in lawful trades for the carriage of suitable lawful merchandise within the trading limits indicated in Box 20.

The Charterers undertake not to employ the Vessel or suffer the Vessel to be employed otherwise than in conformity with the terms of the contracts of insurance (including any warranties expressed or implied therein) without first obtaining the consent of the insurers.

The Charterers shall not employ the Vessel or suffer her to be employed in any trade or business which is forbidden by the laws of any country to which the Vessel may sail or is otherwise illicit or in carrying illicit or prohibited goods or in any manner whatsoever which may render her liable to confiscation, destruction, seizure or condemnation.

7. Surveys on Delivery and Redelivery

(a) Not applicable where Part III applies, as indicated in Box 17.

(b) The Owners and Charterers shall each appoint surveyors for the purpose of determining and ascertaining in writing the condition of the Vessel at the time of delivery and redelivery hereunder. The Owners shall bear all expenses of the On-hire Survey including loss of time, if any, and the Charterers shall bear all expenses of the On-shore Survey including loss of time, if any, and the daily equivalent of the hire or pro rata thereof.

8. Inspection

(a) The Owners shall have the right at any time after giving reasonable notice to the Charterers to inspect or survey the Vessel or instruct a duly authorized surveyor to carry out such survey on their behalf.

(b) To ascertain the condition of the Vessel and satisfy themselves that the Vessel is being properly repaired and maintained. The costs and fees for such inspection or survey shall be paid by the Owners unless the Vessel is found to require repairs or maintenance in order to achieve the condition so provided.

(c) If the Charterers have not dry-docked the Vessel in accordance with Clause 16(a) the costs and fees for such inspection or survey shall be paid by the Charterers.

(d) For any other commercial reason they consider necessary (provided it does not unduly interfere with the commercial operation of the Vessel), the costs and fees for such inspection and survey shall be paid by the Owners.

All time used in respect of inspection, survey or repairs shall be for the Charterers' account and form part of the

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PART II

“BARECON 2001” Standard Bareboat Charter

10. Maintenance and Operation

(a) Maintenance and Repair. During the Charter Period, the Charterer shall be entitled to possession of the Vessel and shall have the right to repair, maintain, and keep in good working order all or any part of the Vessel, its equipment, and fixtures.

(b) Operation of the Vessel. The Charterer shall at their own expense and by their own procurement, man, navigate, operate, supply, fuel and, whenever required, repair the Vessel during the Charter Period and they shall pay all charges and expenses of every kind and nature whatsoever incidental to their use and operation of the Vessel under this Charter, including annual flag State fees and any foreign general, municipal, or local taxes. The Master, officers, and crew of the Vessel shall be the servants of the Charterer for all purposes, even if for any reason appointed by the Owners.

(c) The Charterer shall keep the Owners and the mortgagees, if any, advised of the intended employment, planned dry-docking, and major repairs of the Vessel, as reasonably required.

(d) Flag and Name of Vessel – During the Charter Period, the Charterer shall have the liberty to paint the Vessel in their own colours, install and display their funnels, insignia, and fly their own flag.

(e) Charterer to Provide Insurance. The Charterer shall also have the liberty, with the Owners’ consent, which shall not be unreasonably withheld, to change the flag and/or the name of the Vessel during the Charter Period. Painting and re-painting, signage, and re-registration, registration, and re-registration, if required by the Owners, shall be at the Charterer’s expense and time.

(f) Changes in the Vessel – Subject to Clause 10.1(e), the Charterer shall make no structural changes in the Vessel or changes in the machinery, boilers, apparatus, or spare parts thereof in any instance after obtaining the Owners’ approval thereof. If the Owners so agree, the Charterer shall, if the Owners so require, restore the Vessel to its former condition before the termination of this Charter.

(g) Use of the Vessel’s Outfit, Equipment, and Appliances. The Charterer shall have the use of all outfit, equipment, and appliances on board the Vessel at the time of delivery, provided the same or their substantial equivalent shall be returned to the Owners on redelivery in the same good order and condition as when received, ordinary wear and tear excepted.

(h) Financial Security. The Charterer shall maintain financial security or otherwise to the satisfaction of third-party liabilities, as defined by any applicable law, as to the Vessel, without penalty or charge, payable to the Owners, if any, or left at any port, place, or in the possession of any country, state, or municipality in performance of this Charter without any delay. This obligation shall apply whether or not such requirements have been lawfully imposed by any government or division thereof.

11. Hire

(a) The Charterer shall pay hire to the Owners in accordance with the terms of this Charter.
PART II
"BARECON 2001" Standard Bareboat Charter

12. Mortgage

(a) The Charterers shall pay to the Owners for the hire of the Vessel a lump sum in the amount indicated in Box 22 which shall be payable not later than every thirty (30) running days in advance of any amount of hire remaining payable on the date and hour of the Vessel's delivery to the Charterers. Hire shall be paid continuously throughout the Charter Period.

(b) The Charterers shall pay to the Owners for the hire of the Vessel a lump sum in the amount indicated in Box 23 which shall be payable not later than every thirty (30) running days in advance of any amount of hire remaining payable on the date and hour of the Vessel's delivery to the Charterers. Hire shall be paid continuously throughout the Charter Period.

(c) Payment of hire shall be made in cash without discount in the currency and in the manner indicated in Box 24 and at the place mentioned in Box 25.

(d) Final payment of hire, if for a period of less than thirty (30) running days, shall be calculated proportionally to the number of days and hours remaining before expiration and advance payment to be affected accordingly.

(e) Should the Vessel be lost or missing, hire shall cease from the date and time when she was last or last heard of. The date upon which the Vessel is to be treated as lost or missing shall be ten (10) days after the Vessel was last reported or when the Vessel is posted as missing by Lloyd's, whichever occurs first. Any hire paid in advance shall be adjusted accordingly.

(f) Any delay in payment of hire shall entitle the Owners to interest at the rate per annum as agreed in Box 26. If Box 26 has not been filled in, or the three months interest rate offered is in London (LIR) or its successor (for the currency stated in Box 26), as quoted by the British Bankers' Association (BBA) on the date on which the hire fell due, increased by 1 per cent. shall apply.

(g) The owners of interest in the charter (or) charterer shall be made within seven (7) running days of the date of the Owners' invoice specifying the amount payable or, in the absence of an invoice, at the time of the next hire payment date.

13. Insurance and Repairs

(a) During the Charter Period the Vessel shall be kept insured by the Charterers at their expense against hull and machinery, war and strike and insurance risks in accordance with the lloyd's underwriters' requirements. The Owners are to be informed immediately of any decrease in the amount insured for the operation of the Vessel, including maintaining financial security in accordance with sub-clause 13(3) thereof.

(b) In the event of any damage or loss incurred by the Charterers, the Charterers shall be liable to pay for the repair of the Vessel, including maintaining financial security in accordance with sub-clause 13(3) thereof, and all costs and expenses caused as a result of discrepancies between the values of the owners' interest as determined by the chartering representatives.

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PART II

“BARECON 2001” Standard Bareboat Charter

13. Redelivery

At the expiration of the Charter Period the Vessel shall be redelivered by the Charterers to the Owners at a safe and ice-free port, or place, as indicated in Box 10, in such ready safe berth as the Owners may direct. The Charterers shall give the Owners not less than thirty (30) running days’ prior written notice of expected date and port or place of redelivery, and not less than fourteen (14) running days’ definite notice of expected date and port or place of redelivery. Any changes thereafter in the Vessel’s position shall be notified immediately to the Owners.

The Owners warranting that they will not permit the Vessel to commence a voyage (including any preceding ballast voyage) which cannot reasonably be expected to be completed in time to allow the delivery of the Vessel within the Charter Period. Notwithstanding the above, should the Charterers fail to redeliver the Vessel within the Charter Period, the Charterers shall pay the daily equivalent to the rate of hire stated in Box 22 plus 10 per cent, or to the market rate, whichever is the higher, for the number of days by which the Charter Period is exceeded. All other terms, conditions and provisions of this Charter shall continue to apply.

Subject to the provisions of Clause 15, the Vessel shall be redelivered to the Owners in the same or as good structure, state, condition and class as at which she was delivered, fair wear and tear not affecting class excepted.

The Vessel upon redelivery shall have her survey cycles up to date and draught and class certificates valid for at least the number of months agreed in Box 17.

16. Non-Lien

The Charterers will not suffer, nor permit to be suffered, any lien or encumbrance imposed by virtue of the Vessel being a floating establishment. In the event of such a lien being imposed, the Charterers will not be responsible for any expenses as are incident to the use and operation of the Vessel for such time as may be required to make such repairs.

The Charterers shall indemnify the Owners against any loss, damage or expense incurred by the Owners arising out of or in relation to the operation of the Vessel in accordance with the provisions of Clause 14, including but not limited to the payment of any mortgage or charge which may be created by the Owners in accordance with the provisions of Clause 14(a), this Charter shall terminate as of the date of such loss.

The Charterers shall, upon the request of the Owners, promptly execute such documents as the Owners may require to enable the Owners to assign the Vessel to third parties as a constructive total loss. The Charterers shall indemnify the Owners against all consequential losses arising from such assignment.

No warranty or representation is given concerning the fitness of the Vessel for any particular purpose. The Charterers shall not be responsible for any damage or expense caused as a result of discrepancies between the original BARECON Charter and the current generated document.
PART II
“BARECON 2001” Standard Bareboat Charter

18. Lie
The Owners to have a lien upon all cargoes, sub-hires and sub-freights belonging or due to the Charterers or any sub-charterers and any Bill of Lading freight for all claims under this Charter, and the Charterers to have a lien on the Vessel for all moneys paid in advance and not earned.

19. Salvage
All salvage and towage performed by the Vessel shall be for the Charterers’ benefit and the cost of repairing damage occasioned thereby shall be borne by the Charterers.

20. Wreck Removal
In the event of the Vessel becoming a wreck or otherwise to be in a condition of navigation the Charterers shall indemnify the Owners against any sums whatsoever which the Owners shall become liable to pay and shall pay in consequence of the Vessel becoming a wreck or obstruction to navigation.

21. General Average
The Owners shall not contribute to General Average.

22. Assignment, Sub-Charter and Sale
(a) The Charterers shall not assign this Charter or sub-charter the Vessel on a bareboat basis except with the prior consent in writing of the Owners, which shall not be unreasonably withheld, and subject to such terms and conditions as the Owners shall approve.
(b) The Owners shall not sell the Vessel during the currency of this Charter except with the prior written consent of the Charterers, which shall not be unreasonably withheld, and subject to the buyer accepting an assignment of this Charter.

23. Contracts of Carriage
*) (a) The Charterers are to procure that all documents issued during the Charter Period evidencing the terms and conditions agreed in respect of carriage of goods shall contain a paramount clause incorporating any legislation relating to carrier’s liability for cargo;
(b) The Charterers are to procure that all passenger tickets issued during the Charter Period for the carriage of passengers and their luggage under this Charter shall contain a paramount clause incorporating any legislation relating to carrier’s liability for passengers and their luggage compulsorily applicable in the trade;
(c) If no such legislation exists, the passenger tickets shall incorporate the Hague-Visby Rules. The documents shall also contain the New Jason Clause.

24. Bank Guarantee
(Optionally, to apply if Box 27 filled in)
The Charterers undertake to furnish, before delivery of the Vessel, a first-class bank guarantee or bond in the sum and at the place as indicated in Box 27 as guarantee for full performance of their obligations under this Charter.

25. Requisition/Acquisition
(a) In the event of the Requisition for Hire of the Vessel by any governmental or other competent authority, irrespective of the date during the Charter Period when “Requisition for Hire” may occur and irrespective of the length thereof and whether or not it be for an indefinite or a limited period of time, and irrespective of whether it may or will remain in force for the remainder of the Charter Period, this Charter shall not be deemed thereby or therupon to be frustrated or otherwise terminated and the Charterers shall continue to pay the stipulated hire in the manner provided by this Charter until the time when the Charterers have terminated pursuant to any of the provisions hereof always provided however that in the event of “Requisition for Hire” any Requisition Hire or compensation received or receivable by the Owners shall be payable to the Charterers during the remainder of the Charter Period or the period of the “Requisition for Hire” whichever is the shorter.
(b) In the event of the Owners being deprived of their ownership in the Vessel by any Compulsory Acquisition of the Vessel or requisition for title by any governmental or other competent authority (hereinafter referred to as “Compulsory Acquisition”), then, irrespective of the date during the Charter Period when “Compulsory Acquisition” may occur, this Charter shall be deemed terminated as of the date of such “Compulsory Acquisition”. In such event Charter Hire is to be considered as earned and to be paid up to the date and time of such “Compulsory Acquisition”.

26. War
(a) For the purpose of this Clause, the words “War Risks” shall include any war (whether actual or threatened), act of war, civil war, hostilities, revolution, rebellion, civil commotion, warlike operations, the laying of mines (whether actual or reported), acts of piracy, acts of terrorists, acts of hostility or malicious damage, blockades (whether imposed against vessels or imposed selectively against vessels of certain flags or ownership, or against any certain cargoes or crews or otherwise whatsoever), by any person, body, terrestrial or political group, or the Government of any state whatsoever, which may be dangerous or likely to be or become dangerous to the Vessel, her cargo, crew or other persons on board the Vessel.
(b) The Vessel, unless the written consent of the Owners is first obtained, shall not continue to go through any port, place, area or zone (whether of land or sea), or any waterway or canal, where it reasonably appears that the Vessel, her cargo, crew or other persons on board the Vessel are likely to be exposed to War Risks. Should the Vessel be within any such place as aforesaid, which only becomes dangerous, or is likely to be or become dangerous, after her entry into it, the Owners shall have the right to require the Vessel to leave such area.
(c) The Vessel shall not load contraband cargo, or to pass through any blockade, whether such blockade be imposed on all vessels, or is imposed selectively in any way whatsoever against vessels of certain flags or ownership, or against certain cargoes or crews or otherwise whatsoever, and to proceed to an area where she shall be subject, or is likely to be subject to a belligerent’s right of search and/or confiscation.
(d) If the insurers of the war risks insurance, when Clause 11 is applicable, should require payment of premiums and/or calls be made, pursuant to the Charterers’ orders, the Vessel is within, or is about to enter and remain within, any area of areas which are specified by such insurers as being subject to additional premiums because of War Risks, then such premiums and/or calls shall be reimbursed by the Charterers to the Owners at the same time as the next payment of hire is due.
(e) The Charterers shall have the liberty to comply with all orders, directions, recommendations or advice as to departure, arrival, routes, sailing in company, ports of call, stoppages, destinations, discharge of cargo, delivery, or in any other way whatsoever, which are given by the Government of the Nation under whose flag the Vessel sails, or any other Government, body or group whatsoever acting with the power to compel.

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PART II

“BARECON 2001” Standard Bareboat Charter

27. Commission

The Owners to pay a commission at the rate indicated in Box 32 to the Brokers named in Box 33 on any hire under the Charter. If no rate is indicated in Box 33, the commission to be paid by the Owners shall cover the actual expenses of the Brokers and a reasonable fee for their work.

Should the parties agree to cancel the Charter, the Owners shall indemnify the Brokers against any loss of commission.

28. Termination

(a) Charterer’s Default

The Charterers shall be entitled to cancel the Charter in accordance with Clause 11 if the Owners fail to pay hire in accordance with Clause 11. However, where there is a failure to make punctual payment of hire due to oversight, negligence, errors or omissions on the part of the Charterer or their bankers, the Owners shall give the Charterers written notice of the number of clear working days stated in Box 34 (as recognised at the agreed place of payment) in which to rectify the failure, and when so rectified within such number of days following the Owners’ notice, the payment shall stand as regular and punctual.

Failure by the Charterers to pay hire within the number of days stated in Box 34 of their receiving the Owners’ notice as provided herein, shall entitle the Owners to cancel the Charter from the service of the Charterers and terminate the Charter without further notice.

(ii) Charterers fail to comply with the requirements of:

(a) Charterers to provide written notice to the Charterers, to the effect that the Charterers have not complied with the conditions stated in Box 31 of the Charter, and the Charterers shall be entitled to cancel the Charter if the Charterers fail to correct the deficiency within the time stated in Box 31 of the Charter.

(b) if the Charterers fail to comply with any of the requirements of (a) above, the Charterers shall be entitled to cancel the Charter without further notice.

(c) Charterers’ insurance cover is not prejudiced.

29. Repossession

In the event of the termination of this Charter in accordance with the applicable provisions of Clause 22, the Owners shall have the right to repossess the Vessel from the Charterers at any port or a place of call, or at a port of place of call, to them without hindrance or interference by the Charterers, courts or local authorities.

Pending physical repossession of the Vessel, the Charterers shall hold the Vessel as gratuitous bail on the Owners’ behalf.

The Owners shall arrange for an authorised representative to board the Vessel as soon as reasonably practicable following the termination of this Charter.

30. Dispute Resolution

(a) This Contract shall be governed and construed in accordance with English law and any dispute arising out of or in connection with this Contract shall be referred to arbitration in London in accordance with the Arbitration Act 1996 or any statutory modification or re-enactment thereof save to the extent necessary to give effect to

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PART II
“BARECON 2001” Standard Bareboat Charter

The arbitration shall be conducted in accordance with the London Maritime Arbitrators Association (LMAA) Terms current at the time when the arbitration proceedings are commenced.

The reference shall be to three arbitrators. A party wishing to refer a dispute to arbitration shall appoint an arbitrator and send notice of such appointment in writing to the other party requiring the other party to appoint its own arbitrator within 14 calendar days of that notice and stating that it will appoint its arbitrator as sole arbitrator unless the other party appoints its own arbitrator and gives notice that it has done so within the 14 days specified. If the other party does not appoint its own arbitrator and give notice that it has done so within the 14 days specified, the party referring a dispute to arbitration may, without the requirement of any further prior notice to the other party, appoint its own arbitrator as sole arbitrator and shall advise the other party accordingly. The award of a sole arbitrator shall be binding on both parties as if the claim had been arbitrated by agreement.

The present agreement shall be governed and interpreted in accordance with the laws of the United States Code and the Maritime Law of the United States and any dispute arising out of or in connection with this Contract shall be settled by the United States District Court in New York, New York, one to be appointed by each of the parties hereto, and the third by the two so chosen; their decision or that of any two of them, if they agree, shall be final, and for the purposes of enforcing any award, judgment may be entered on an award by any court of competent jurisdiction. The proceedings shall be conducted in accordance with the rules of the Society of Maritime Arbitrators, Inc. in cases where neither the claim nor any counterclaim exceeds the sum of US$50,000,000 (or such other sum as the parties may agree) the arbitration shall be conducted in accordance with the Shortened Arbitration Procedure of the Society of Maritime Arbitrators, Inc. at the time when the arbitration proceedings are commenced.

This Contract shall be governed and conducted in accordance with the laws of the place mutually agreed by the parties and any dispute arising out of or in connection with this Contract shall be submitted to arbitration at a mutually agreed place, subject to the procedures applicable there.

Notwithstanding (a), (b), or (c) above, the parties may agree at any time before mediation, before mediation, or upon the application of either party a mediator shall be appointed promptly by the tribunal (the “Mediation Notice”) calling on the other party to agree to mediation.

In the case of a dispute in respect of which arbitration has been commenced under (a), (b), or (c) above, the following shall apply:

The other party shall respond within 14 calendar days of receipt of the Mediation Notice confirming that they agree to mediation, in which case the parties shall each agree a mediator within a further 14 calendar days, failing which application of either a mediator will be appointed promptly by the tribunal (the “Tribunal”) or such person as the Tribunal may designate for that purpose. The mediation shall be conducted in such place and in accordance with such procedure and on such terms as the parties may agree or, in the event of disagreement, as may be set by the mediator.

If the other party does not agree to mediate, that fact may be brought to the attention of the Tribunal and may be taken into account by the Tribunal when allocating the costs of the arbitration as between the parties.

The Tribunal shall appoint a mediator to conduct the mediation but the Tribunal may take the mediation timetable into account when setting the timetable for stays in the arbitration.

Unless otherwise agreed or specified in the mediation terms, each party shall bear its own costs incurred in the mediation and the parties shall share equally the mediator’s fees and expenses.

The mediation process shall not be without prejudice and confidential and no information or documents disclosed during it shall be used by the Tribunal except to the extent that they are admissible under the law governing the arbitration.

(Note: The parties should be aware that the mediation process may not necessarily interrupt time limits.)

If Box 35 in Part II is not appropriately filled in, sub-clause 3(a) of this Clause shall apply. Sub-clause 3(d) shall apply in all other cases. Sub-clauses 3(a), 3(b) and 3(d) are alternatives; indicate alternative agreed in Box 35.

31. Notices

(a) Any notice to be given by either party to the other party shall be in writing and may be sent by fax, telex, registered or recorded mail or by personal service.

(b) The address of the Parties for service of such communication shall be as stated in Boxes 3 and 4 respectively.
PART III
PROVISIONS TO APPLY FOR NEWBUILDING VESSELS ONLY
(Optional, only to apply if expressly agreed and stated in Box 37)

1. Specifications and Building Contract
(a) The Vessel shall be constructed in accordance with the Building Contract (hereafter called the "Building Contract") annexed to this Charter, made between the Owners and the Owners and in accordance with the specifications and plans annexed hereto, such Building Contract, specifications and plans having been countersigned as approved by the Charterers.
(b) No change shall be made in the Building Contract or in the specifications or plans of the Vessel as approved by the Charterers at the request of the Owners, without the Charterers’ consent.
(c) The Charterers shall have the right to send their representatives to the Vessel’s yard to inspect the Vessel during the course of her construction to satisfy themselves that construction is in accordance with the approved specifications and plans as referred to under sub-clause (c) of this Clause.
(d) The Vessel shall be built in accordance with the Building Contract and shall be of the description set out therein. Subject to the provisions of sub-clause 2(c)(c) hereunder, the Charterers shall be bound to accept the Vessel from the Owners, completed and constructed in accordance with the Building Contract, on the date of delivery by the Owners. The Charterers undertake that having accepted the Vessel they will not thereafter make any claims against the Owners or in respect of the Vessel’s performance or specification or defects, if any.
(e) Time and delivery, repairs or deficiencies which appear within the first 12 months from delivery: The Owners shall endeavor to supply the Charterers with a vessel that is in good repair and is suitable for the purpose for which it is to be used. Any repairs or deficiencies that appear within the first 12 months after delivery shall be made at the expense of the Charterers. The Owners will endeavor to make any repairs or deficiencies to the Vessel as soon as possible after notice of the same has been given to the Charterers.

2. Time and Place of Delivery
(a) Subject to the Vessel having completed her acceptance trials including trials of cargo equipment in accordance with the Building Contract and specifications to the satisfaction of the Charterers, the Owners shall be entitled to deliver the Vessel at the place and time agreed upon or at the place and time agreed upon by the parties under this Clause (including in the existing Contract). The Owners shall not be entitled to refuse acceptance of delivery of the Vessel and shall provide all necessary facilities for the purpose of the Charterers’ inspection and inspection shall be at the Charterers’ expense. The Charterers shall be entitled to accept the Vessel in any condition and at any time and place agreed upon or at the place and time agreed upon by the parties under this Clause (including in the existing Contract).

3. Guarantee Works
If the Vessel is not in good repair and condition at the time of delivery, the Owners shall be responsible for making good any deficiencies or repairs required. The Charterers shall be entitled to receive and inspect the Vessel at the time and place agreed upon, and any deficiencies or repairs required shall be made at the expense of the Owners.

4. Name of Vessel
The name of the Vessel shall be agreed upon and recorded in the existing Contract. The Owners shall provide all necessary facilities for the purpose of the Charterers’ inspection and inspection shall be at the Charterers’ expense. The Charterers shall be entitled to receive and inspect the Vessel at the time and place agreed upon, and any deficiencies or repairs required shall be made at the expense of the Owners.

5. Survey
The Owners and the Charterers shall jointly appoint surveyors for the purpose of determining and agreeing in writing the condition of the Vessel at the time of delivery. The Owners shall bear all survey expenses and any other costs incurred, including the cost of surveying and recounting, if required, as well as all repair costs incurred. The Charterers shall also bear all costs incurred in connection with any docking and undocking, as well as repairs, which shall be paid at the rate of hire per day or pro rata.
### Annex: Examples of charter contracts

**“BARECON 2001” Standard Bareboat Charter**

**PART IV**

**HIRE/PURCHASE AGREEMENT**

(Optional, only to apply if expressly agreed and stated in Box 42)

<table>
<thead>
<tr>
<th>Clause</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>On expiration of this Charter and provided the Charterers have fulfilled their obligations according to Part I and II as well as Part III if applicable, it is agreed, that on payment of the final payment of hire as per Clause 11 the Charterers have purchased the Vessel with everything belonging to her and the Vessel is fully paid for.</td>
</tr>
<tr>
<td>2</td>
<td>In the following paragraphs the Owners are referred to as the Sellers and the Charterers as the Buyers.</td>
</tr>
<tr>
<td>3</td>
<td>The Vessel shall be delivered by the Sellers and taken over by the Buyers on expiration of the Charter.</td>
</tr>
<tr>
<td>4</td>
<td>The Sellers guarantee that the Vessel, at the time of delivery, is free from all encumbrances and maritime liens or any debts whatsoever other than those arising from anything done or not done by the Buyers or any existing mortgage agreed not to be paid off by the time of delivery. Should any claims, which have been incurred prior to the time of delivery be made against the Vessel, the Sellers hereby undertake to indemnify the Buyers against all consequences of such claims to the extent it can be proved that the Sellers are responsible for such claims. Any taxes, notarial, consular and other charges and expenses connected with the purchase and registration under Buyer’s flag, shall be for Buyers’ account. Any taxes, consular and other charges and expenses connected with closing of the Seller’s register, shall be for Sellers’ account.</td>
</tr>
<tr>
<td>5</td>
<td>In exchange for payment of the last month’s hire and installation the Sellers shall furnish the Buyers with a Bill of Sale duly attached and legalized, together with a certificate setting out the registered encumbrances, if any. On delivery of the Vessel the Sellers shall provide for deletion of the Vessel from the Ship’s Register and deliver a certificate of deletion to the Buyers. The Sellers shall, at the time of delivery, hand to the Buyers all classification certificates (for hull, engines, anchors, chains, etc.) as well as all plans which may be in Sellers’ possession.</td>
</tr>
<tr>
<td>6</td>
<td>The Wireless installation and Nautical Instruments, unless on hire, shall be included in the sale without any extra payment.</td>
</tr>
<tr>
<td>7</td>
<td>The Vessel with everything belonging to her shall be at Sellers’ risk and expense until she is delivered to the Buyers, subject to the conditions of this Contract and the Vessel with everything belonging to her shall be delivered and taken over at the time of delivery, after which the Sellers shall have no responsibility for possible faults or deficiencies of any description.</td>
</tr>
<tr>
<td>8</td>
<td>The Buyers undertake to pay for the replacement of the Master, Officers and other personnel if appointed by the Sellers to the port where the Vessel entered the Bareboat Charter as per Clause 3 (Part II) or to pay the equivalent cost for their journey to any other place.</td>
</tr>
</tbody>
</table>

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Annex: Examples of charter contracts

"BARECON 2001" Standard Bareboat Charter

PART V
PROVISIONS TO APPLY FOR VESSELS REGISTERED IN A BAREBOAT CHARTER REGISTRY
(Optional, only to apply if expressly agreed and stated in Box 43)

1. Definitions
For the purpose of this PART V, the following terms shall have the meanings hereby assigned to them:

The Bareboat Charter Registry shall mean the registry of the State whose flag the Vessel will fly and in which the Charterers are registered as the bareboat charterers during the period of the Bareboat Charter.

The Underlying Registry shall mean the registry of the state in which the Owners of the Vessel are registered as Owners and to which jurisdiction and control of the Vessel will revert upon termination of the Bareboat Charter Registration.

2. Mortgage
The Vessel chartered under this Charter is financed by a mortgage and the provisions of Clause 125 (Part II) shall apply.

3. Termination of Charter by Default
If the Vessel chartered under this Charter is registered in a Bareboat Charter Registry as stated in Box 44, and the Owners shall default in the payment of any amounts due under the mortgage(s) specified in Box 20, the Charterers shall, if so required by the mortgagee, direct the Owners to re-register the Vessel in the Underlying Registry as shown in Box 45, in the event of the Vessel being deleted from the Bareboat Charter Registry as stated in Box 44, due to a default by the Owners in the payment of any amounts due under the mortgage(s), the Charterers shall have the right to terminate the Charter forthwith and without prejudice to any other claim they may have against the Owners under this Charter.
### Time Charter – BOXTIME 2004

1. **Shipowner**

2. **Place and Date**

3. **Owner/D omnipotent Owners & Place of Business, E-mail, Telephone and Telefax Number**

4. **Charterer’s & Place of Business, E-mail, Telephone and Telefax Number**

5. **Vessel’s Name**

6. **Vessel’s Description**

7. **Call Signs/IMO Numbers**

8. **Specification (S and G) of Port (C1, C2, C3 and C4)**

9. **Fees/Price of Delivery (Min. Max. C1, C2, C3 and C4)**

10. **Fuel Price or Redelivery (Min. Max. C1, C2, C3 and C4)**

11. **Place of Delivery (C1-1)**

12. **Earliest Date of Delivery (Local time) (C1, C2, C3 and C4)**

13. **Cancellation Date/Time (C1, C2, C3 and C4)**

14. **Place of Redelivery (C1, C2, C3 and C4)**

15. **State number of days Notice of Place and Date of Redelivery (C1, C2, C3 and C4)**

16. **Ending Lines (C1, C2 and C3)**

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### BOXTIME 2004 Standard Time Charter Party for Container Vessels

<table>
<thead>
<tr>
<th>PART I</th>
<th>PART II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>18. Quantity of Hazardous Goods allowed (CL. 14(a))</strong></td>
<td><strong>19. Period of Charter and Options, Fary (CL. 15a) and 5</strong></td>
</tr>
<tr>
<td><strong>20. State number of days Options have to be declared after commencement of Charter Period (CL. 16(b))</strong></td>
<td><strong>21. Hire (Rate and currency) CL. 16(a) and 15(b)</strong></td>
</tr>
<tr>
<td><strong>22. Owners' Bank Accounts (CL. 16(c))</strong></td>
<td><strong>23. Insured Value of Vessel (CL. 13(a))</strong></td>
</tr>
<tr>
<td><strong>24. Monthly Lumpsum for Supercargo, Communication Facilities and Vetting (CL. 15(c))</strong></td>
<td><strong>25. Monthly Lumpsum for Representation Expenses (CL. 13(c))</strong></td>
</tr>
<tr>
<td><strong>26. Name of Owners' P&amp;I Club (CL. 14(b))</strong></td>
<td><strong>27. Name of Charterer's P&amp;I Club (CL. 12(b))</strong></td>
</tr>
<tr>
<td><strong>28. Charterer's minimum Claim settlement authority (CL. 10(b))</strong></td>
<td><strong>29. Monthly Lumpsum for Replacement Cost for Vessel’s lost or damaged Loadings (CL. 10(c))</strong></td>
</tr>
<tr>
<td><strong>30. Payment per man hour for Repair / Repair Work undertaken by Crew (CL. 20)</strong></td>
<td><strong>31. General Average Adjustment (CL. 15(d))</strong></td>
</tr>
<tr>
<td><strong>32. Dispute Resolution (state (a), (b) or (c) of CL. 21, as agreed, if (c) agreed also state Place of Arbitration (CL. 21))</strong></td>
<td><strong>33. Commission and to whom payable (CL. 21)</strong></td>
</tr>
<tr>
<td><strong>34. Additional Clauses</strong></td>
<td></td>
</tr>
</tbody>
</table>

It is mutually agreed between the party mentioned in Box 3 (hereinafter referred to as "the Owners") and the Party mentioned in Box 4 (hereinafter referred to as "the Charterers") that the Contract shall be performed in accordance with the conditions contained in PART I including additional clauses, if any agreed and stated in Box 34, and PART II as well as PART II. In the event of a conflict of conditions, the provisions of PART I and PART II shall prevail over those of PART II to the extent of such conflict but no further.

<table>
<thead>
<tr>
<th>Signature (Owners)</th>
<th>Signature (Charterer)</th>
</tr>
</thead>
</table>

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PART II
BOXTIME 2004 Standard Time Charter Party for Container Vessels

VESSEL’S DESCRIPTION

WORKING COPY

WORKING COPY
Annex: Examples of charter contracts

Handbook on the compilation of statistics on sea and air transport
in national accounts and balance of payments

272


Annex: Examples of charter contracts

PART II
BOXTIME 2004 Standard Time Charter Party for Container Vessels

It is agreed on the date shown in Box 2 between the party named in Box 3 as the Owners, and the party named in Box 4 as the Charterers, as follows:

1. Period of Charter Party and Delivery
(a) Period. In consideration of the hire detailed in Box 5, the Owners will hire the Vessel to the Charterers for the period together with any optional extension(s) thereto as indicated in Box 9, at the option of the Charterers, must be declared to the Charterers within the period indicated as in Box 11. If the Charterers agree to hire the Vessel as in Box 11 for any reason beyond the control of the Owners, delivery shall take place at the nearest point to the nominated Place of Delivery, within three days after the hire shall be notified of the reason for the delay and the Charterers shall have the right to cancel the Charter Party without prejudice to any claim the Charterers may otherwise have on the Owners under this Charter Party. If the Owners anticipate that the Vessel will not be ready for delivery by the date stated in Box 13, they may notify the Charterers in writing, stating the anticipated new date of readiness for delivery, proposing a new canceling clause and indicating the Charterers to declare whether they will cancel or will take delivery of the Vessel. Should the Charterers elect to take delivery or otherwise agree, the proposed new canceling clause will take effect as from the date stated in Box 13.
(b) Vessel's Condition. At the time of delivery the Vessel shall be in a fit state to receive containers and to perform the charter agreement. The Charterers shall have the option to cancel the Charter Party if the Vessel is not in a fit state. The Charterers shall be responsible for all costs incurred in connection with the Vessel's fitness for delivery.
(c) Charterers' Acceptance. Acceptance of delivery of the Vessel shall not prejudice the Charterers' rights against the Owners under this Charter Party.

2. Owners' Undertaking
The Owners shall, in the course of the Hire Period, provide the Vessel shall be of the description set out in PART III (Vessel's Description) hereof.

3. Charter Particulars
(a) Charter Particulars. The Vessel shall be of the description set out in PART II (Vessel's Description) hereof.

4. Charter Particulars
(a) Cargoes. The Charterers shall hire the Vessel for the carriage of the goods described in Box 10, and shall permit the Charterers to make all necessary arrangements for the carriage of the goods. The Charterers shall indemnify the Owners against all losses and damages incurred by the Owners in connection with the carriage of the goods.
(b) Cancellation. The Charterers shall have the right to cancel the Charter Party if the Vessel is not in a fit state for delivery or if the Charterers are unable to obtain the necessary permits for the carriage of the goods.
(c) Storage. The Charterers shall be responsible for all costs incurred in connection with the storage of the goods.

5. Redelivery
(a) Place of Redelivery. The Charterers shall deliver the Vessel to the Owners at the Place of Redelivery as stated in Box 14 within the time period indicated in Box 13.
(b) Charterers' Undertaking. The Charterers shall be responsible for all costs incurred in connection with the redelivery of the Vessel.

6. Owners' Undertaking
The Owners shall, in the course of the Hire Period, provide the Vessel shall be of the description set out in PART III (Vessel's Description) hereof.
PART II

BOXTIME 2004 Standard Time Charter Party for Container Vessels

Annex: Examples of charter contracts

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Annex: Examples of charter contracts

PART II

BOXTIME 2004 Standard Time Charter Party for Container Vessels

Payments shall be subject to a 2.5% per cent. commission payable to the Charterers.

(k) Contravance: In the event that contravent and/or
unmanifested goods are found to have been shipped
as part of the goods and/or in containers on board,
any fines, penalties or losses levied shall be for the
Charterers' account and the Vessel shall remain on
hire during any time lost as a result thereof. In this event
any security required shall be provided by the
Charterers.

8. Hire

(a) Rate: The Charterers shall pay hire per day or pro
rata for any part of a day from the time the Vessel is
delivered and made available to the Charterers
until her delivery to the Owners, in the currency and at the rate stated in Box 21,

All calculation of hire shall be made reference to
the Charterers' fidelity (or similar).

(b) Payment: Subject to the owner's instructions, hire shall be
paid in accordance with the procedure stated in Box 22, or to such other account as the Owners
may from time to time designate in writing, in funds available
to the Owners on the due date.

(c) Default: Where there is a failure to pay hire by the
due date, the Owners shall notify the Charterers in
writing of such failure. Within two (2) banking days (as recognised at the place of payment stated in Box 23)
of receipt of such notification, the Charterers shall pay
the amount due, failing which the Owners shall have
the right to suspend the performance of any or all of their
obligations under this Charter Party and to withdraw
the Vessel. If the Owners elect to suspend
the performance of the Charter in respect of a particular
late payment, the parties may still renegotiate
that suspension of performance. Withdrawal of the Vessel
from the Charter in respect of that late payment provided
they give a further ten (10) days' notice in writing of their intention to withdraw. Under no
circumstances shall the act of suspending performance
be construed as a waiver by the Owners of the right to
withdraw in respect of the continuing failure to pay hire
or any subsequent late payment of hire under this
Charter Party. Throughout any period of suspended
performance under this Clause, the Vessel is to be and
shall remain on hire. The Charterers undertake to
indemnify the Owners in respect of any liabilities
incurred by the Owners under the bill of lading, waybill
or any other contract of carriage as a consequence of the
Owners' pro rata, or and/or of their obligations under the Charter
Party.

(d) Deductions: All expenses and other deductions charged
against the Charterers shall be applicable to the hire due any expenses included or charged to the
Owners under this Charter Party. Such expenditure
is incurred in a currency other than that in which hire is
payable, conversion into such currency for the purpose of
deduction shall be affected at the rate of exchange
prevailing on the date the expenditure was incurred.

(e) Redrigger Adjustment: Should the Vessel be on
her voyage towards the port or place of redrigger at the
time of payment of hire becomes due, said payment
shall be made for the estimated time necessary
to complete the voyage, less the estimated value of the
fuels remaining on board at redrigger. When the Vessel
is redriggered to the Owners any undisputed difference
shall be refunded to or paid by the Charterers as
appropriate, but not later than thirty (30) days after
redrigger of the Vessel.

9. Off Hire

After delivery in accordance with Clause 1, hereof, the
Vessel shall remain on hire until delivery in accordance with Clause 5, except for the following periods:

(a) Unavailable with Instructions: If the Vessel is
unavailable to comply with the instructions of the
Charterers on account of:

(i) any damage, defect, wear and tear, or deficiency of
the Vessel's hull, machinery, equipment or repairs
or maintenance therein, including drydocking,
excluding such instances when Clauses 11(b) and
15(b) apply.

(ii) any deficiency of the Master, Officers and/or crew,
including the Master, Officers and/or crew of the
Vessel and/or any other person engaged in service
immediately required, whether or not within the
control of the Owners.

(iii) arrest of the Vessel at the port of a party where a
claim is not caused by the Charterers, their
servants, agents or sub-contractors (see Clause 46).

(iv) delay occasioned by any breach by the
Owners of any obligation or warranty in this
Charter Party,

(v) the terms of employment of Master, Officers and/or
crew,

then payment of hire shall cease for the time thereby
lost.

(b) Diversion: In the event of the Vessel deviating
(which expression includes putting back, or putting into
any port or place other than to that to which the Vessel is
bound under the instructions of the Charterers) other
than to save life or property, hire shall cease to be
payable from the commencement of such deviation until
the time when the Vessel is again ready to resume her
service from a position no less favourable to the
Charterers than that at which the deviation commenced,

(c) Performance: Where the Charterers are
undertaken to perform such services under the Charter
Party, said services shall be performed in a manner
loved and suitable to the Charterers, and in accordance
with the instructions of the Charterers.

(d) Loss or Damage: Should the Vessel be lost or
damaged by reason of fire, collision, grounding,
storm, hail, tempest, floods, or any other act of God
or the public enemy, the Charterers shall be
exonerated from any liability whatever in respect of such
loss or damage, provided that such loss or damage has
not been caused by the negligence or wilful default
of the Charterers.

(e) In Case of War: In case of any war, civil commotion,
or any similar contingency, the Charterers shall have
the option of canceling the balance period of this Charter
Party, provided this option is exercised within 14 days
of receipt of notice of resumption.

(f) Adhesion: Should the Vessel be required
by any government or governmental authority during
the period of this Charter Party, it shall be off hire during
the period of such requisition and any hire for
such</noauthor>
PART II

BOXTIME 2004 Standard Time Charter Party for Container Vessels

shall be deemed to reduce such extension and hire shall be payable at the rate(s) which would otherwise have been payable during each period of hire.

10. Loss of Vessel

Should the Vessel be lost, or become a constructive total loss, hire shall cease at 1200 UTC on the day of the loss or owing to a total loss, and it shall continue from 1200 UTC on the date when last heard of, and any hire paid in advance and not earned shall be returned to the Charterers and payment of any hire due shall be deferred until the Vessel is reported salved.

11. Vessel's Gear and Equipment

(a) Regulations: The Vessel's cargo gear, if any, and any other related equipment shall comply with the laws and regulations of the countries to which the Vessel may be subjected, and the Charterer shall assure that the Vessel is at all times in possession of the certificates to establish the possession of such regulations, if any, and that all necessary filings are maintained in good order and in force in the Master and/or the Owners to comply with the aforementioned regulations or, if the Vessel is not in possession of such valid certificates, that the Charterer may suspend hire for the time lost thereby and the Owners shall pay all expenses incurred incidental to and resulting from such failure. (See Appendix (a))

(b) Breakdown of Vessel's Gear: The Owners shall exercise due diligence in ensuring that all cargo handling gear, including derricks, cranes, and straddles, are properly maintained in working order. Should the Vessel be damaged or incapacitated due to a breakdown of any of such gear or any part of such gear, the Charterer shall not be held liable for the actual time lost thereby during loading or discharging, unless the damage is caused by the fault of the Charterer or his agents.

(c) Charterer continuing working by using shore crane(s): The Charterer shall remain on hire and the Owners shall pay the cost of shore crane(s) or an amount not exceeding the amount of hire payable to the Owners for the period.

(d) Suez and Panama Canal: During the currency of this Charter Party the Vessel shall be equipped with all necessary fittings in good working order for Suez and Panama Canal transit.

(e) Lighting: The Vessel shall supply, free of expense to the Charterers, sufficient light on deck and in holds to permit 24 hour working.

(f) Refueling: The Owners shall exercise due diligence in ensuring that all fuel supplies, and the Vessel's generators(s) as described in PART III (Vessel's Description) are maintained in good working order throughout the currency of the Charter Party.

12. bunkering fuel

(a) Quantity at Delivery/Redelivery: The Vessel shall be delivered with about the quantity of fuels stated in Box 9 and, unless indicated to the contrary in Box 10, the Vessel shall be re-delivered with about the same quantity, provided that the quantity of fuels at redelivery is at least sufficient to allow the Vessel to safely reach the nearest port of which fuels of the required type or quality are available.

(b) bunkering prior to Delivery/Redelivery: Provided that it can be accomplished at scheduled ports, without hindrance to the operation of the Vessel, and by prior arrangement between the parties, the Charterer shall allow the Charterer to bunker for the account of the Charterers prior to delivery and the Charterers shall allow the Owners to bunker for the account of the Owners prior to redelivery.

(c) Purchase Price: The Charterers shall purchase the fuels on board on delivery at the price stated in Box 9 and the Owners shall purchase the fuels on board on redelivery at the price stated in Box 10. The value of the fuels on delivery shall be paid together with the first installment of hire.

(d) bunkering.

(i) The Charterers shall supply fuels of the specific grade and grade stated in Box 8. The fuel shall be of a stable and homogenous nature and unless otherwise agreed in writing, shall comply with ISO standard 8046 or any subsequent amendments thereto. The Charterer shall supply bunkering agents and the Charterer shall supply bunkering fuels suitable for the vessel to the Master and/or the Charterer to comply with the aforementioned regulations or, if the Charterer is not in possession of such valid certificates, that the Charterer may suspend hire for the time lost thereby and the Owners shall pay all expenses incurred incidental to and resulting from such failure. (See Appendix (a))

(ii) During delivery a representative sample of each grade of fuels shall be drawn throughout the bunker operation and such sample shall be thoroughly mixed and carefully divided into four identical samples. The sample shall be drawn at a point as close as possible to the Vessel's bunker manifold.

(iii) The four (4) identical samples shall be securely sealed and provided with labels showing the Vessel's name, identity of delivery facility, product name, delivery date and place and point of sampling and seal number, authorized with the Vessel's stamp and signed by the Charterer's representative and the Master of the Vessel or his authorized representative. Two samples shall be retained by the Vessel and two by the Charterer or their representatives.

(iv) The Owners shall have the right to participate in a representative fuel sampling programme, in which case any of the two samples retained by the Vessel shall be forwarded for such testing. The cost of such sample shall be equally split between the Vessel and the Owners provided that the Charterer against presentation of original invoice and the result of the testing shall be shared between the parties. If any claim should arise in respect of the quality or specification of the fuels supplied, the remaining samples of the fuels retained as above shall be analysed by a qualified and independent laboratory to that participating in the fuel sampling programme above.

(v) The Charterers shall be liable for any loss or damage caused by bunkering. The Owners of the Vessel caused by the supply of unsuitable fuels or fuels which do not comply with the specifications and grades set out in Box 9 and the Owners shall not be held liable for any reduction in the value of the Vessel's speed performance and/or increased bunker consumption, nor for any time lost and any other consequences arising as a result of such supply.

(f) Bunkering sulfur content clause.

Nowhere in this Contract does it contain, whether by express terms or otherwise, any provisions for bunkering sulfur content requirements of the fuels supplied during bunker contract.
PART II

BOXTIME 2004 Standard Time Charter Party for Container Vessels

The Charterers shall indemnify, defend and hold harmless the Owners in respect of any loss, liability, damage, fines, costs or expenses arising or resulting from the Charterers’ failure to comply with this Clause. For the purposes of this Clause, “emission control zone” shall mean zones as stipulated in MARPOL Annex VI and/or other zones regulated by regional and/or national authorities such as, but not limited to, the EU and the US Environmental Protection Agency.

13. Master

The Charterers shall arrange for and pay all voyages with due dispatch and supervise the speed and operating costs to ensure that the average speed of the Vessel is not less than the speed to which the Charterers agreed in the negotiations.

The Charterers recognize the principles stated in IMO Resolution A.442(XI) as regards maritime safety and preservation of the marine environment and shall not prejudice the Master in any decision in respect of which his professional judgment is necessary.

The Charterers may supply the Master with weather routing information during the currency of this Charter Party, in which event the Master shall comply with the reporting procedure of the Charterers’ weather routing services.

14. Charterers’ Requirements

(a) Notice. The Charterers shall, if the Charterers so request, furnish to the Owners the following documents in English:

(i) Vessel’s Certificate of Survey

(ii) Vessel’s Certificate of Classification

(iii) Deck Plan

(iv) Engine Room Plan

(v) Miscellaneous.

and any other operational documents and the Charters may reasonably request and which are necessary for the safe and efficient operation of the Vessel. All documents received by the Charterers shall be returned to the Owners on delivery.

(b) Payment. The Owners shall receive the charter hire at the time, place, and in the currency agreed.

(c) Insurance. The Charterers shall maintain insurance for the Vessel and all other property owned or controlled by them in connection with the ownership of the Vessel.

(d) Indemnity. The Owners shall indemnify the Charterers from all loss, liability, damage, fines, costs, or expenses arising or resulting from the Owners’ failure to comply with this Charter Party.

15. Exhibits

The Charterers warrant that the Vessel is capable of operating under this Charter Party and in ballast without requiring any ballast release, but subject to all regulations and restrictions in force. The Owners warrant that the Vessel is capable of operating under this Charter Party and in ballast without requiring any ballast release, but subject to all regulations and restrictions in force.

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The Charterers shall indemnify, defend and hold harmless the Owners in respect of any loss, liability, damage, fines, costs or expenses arising or resulting from the Charterers’ failure to comply with this Charter Party. For the purpose of this Charter Party, “emission control zone” shall mean zones as stipulated in MARPOL Annex VI and/or other zones regulated by regional and/or national authorities such as, but not limited to, the EU and the US Environmental Protection Agency.
## Annex: Examples of charter contracts

### PART II

#### BOSTILE 2004 Standard Time Charter Party for Container Vessels

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Sundry Matters</td>
<td>(a) Charterers: The cost of compulsory shore gangway and某些栏目 shall be borne by the Charterers throughout the currency of this Charter Party.</td>
</tr>
<tr>
<td></td>
<td>(b) Compulsory Garbage Removal: Compulsory garbage removal costs shall be borne by the Charterers unless garbage is actually discharged from the Vessel.</td>
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<tr>
<td></td>
<td>(c) Stowaways:</td>
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<tr>
<td></td>
<td>(i) The Charterers shall bear all risk of stowaways and the reasonable costs of removing them.</td>
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<tr>
<td></td>
<td>(ii) The Vessel shall be entitled to retain stowaways to the extent that they are the cause of any damage or delay.</td>
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<tr>
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<td>(iii) All stowaways shall be declared in writing to the Owners.</td>
</tr>
<tr>
<td>15. Owners' Requirements</td>
<td>(a) Maintenance: Without prejudice to the provisions of Clause 59, the Owners have the right to take the Vessel out of service at any time for emergency repairs, and by prior arrangement with the Charterers, for routine maintenance, including cleaning. The Owners shall endeavour to accommodate the Charterers' requirements in determining the timing of such maintenance and the Charterers shall endeavour to accommodate the Owners' choice of location for maintenance.</td>
</tr>
<tr>
<td></td>
<td>(b) General Average: General average shall be adjusted in accordance with the York-Antwerp Rules 1954.</td>
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<tr>
<td></td>
<td>(c) Salvage: All salvage and assistance to other vessels shall be for the Account of the Owners and the Charterers' equal benefit after deducting the Master's and Crew's proportion and all legal and other expenses including those paid under the Charter Party for time lost in the salvage. Any damage to the Vessel or gear caused to the Owners in consequence of the accident shall be adjusted at its amount.</td>
</tr>
<tr>
<td></td>
<td>(d) Liens: The Charterers warrant that they will not suffer, nor permit to be continued, any lien or other security arising from them or their agents, which might have priority over the title and interests of the Owners in the Vessel. In no event shall the Charterers procure, nor permit to be procured, for the Vessel any such security, no matter how incurred or obtained, whether by reason of any error, misrepresentation or any matter whatsoever.</td>
</tr>
<tr>
<td></td>
<td>(e) Mortgages: The Owners shall have a lien on all shipped cargo and/or containers before or after discharge and on all sub-freights and/or sub-hire including deadweight and demurrage, for any amount due under this Charter Party including but not limited to unpaid charter hire, unreimbursed Charterers' expenses initially paid by the Owners, and contributions in general average property due.</td>
</tr>
</tbody>
</table>

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This document is an excerpt generated from a larger document, the Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments, published by Eurostat. This is not a complete document and is intended for reference purposes only. Further information can be found in the original source.
PART II

BOXTIME 2004 Standard Time Charter Party for Container Vessels

A) any and all damage to the Vessel, and;
B) any replacement cost for the Vessel’s lost or
damaged lashing and securing equipment,
provided the Master has notified the Owners
or their agents, in writing, within 24 hours of
the occurrence or as soon as possible thereafter
but latest when the damage could have been
discovered by the exercise of due diligence. The
Master shall use his best efforts to obtain written
acknowledgement by the party or parties causing
damage unless the damage has been made good
in the meantime. The Charterers shall pay for
storehold damage whether or not payment has
been made by storesellers to the Charterers.
If a sum has been agreed and stated in Box
29 as in respect of any replacement cost for the
Vessel’s lost or damaged lashing and securing
equipment, the Owners shall notify the
Charterers to such lashing and securing
equipment shall be repaired by the Owners
without delay after each occurrence in the
Charterers’ time and shall be paid for by the
Charterers upon receipt of the Owners’ invoice.

(ii) Damage for which the Charterers are responsible
neither affecting the Vessel’s seaworthiness nor the
safety of the crew or other persons on board
(1) before or after delivery, at the Charterers’ option,
concurrently with Charterers work. No hire will
be paid to the Owners except in so far as the time
required for the repairs for which the Charterers
are liable exceeds the time necessary to carry
out the Owners’ work.

(iii) BIMCO ISPS Clause for Time Charter Parties

1. (a) In accordance with the International Code for
the Security of Ships and Port Facilities and
the relevant amendments to Chapter XI of SOLAS
(ISPS Code) in relation to the Vessel, the Owners
shall procure that both the Vessel and the
Company (as defined by the ISPS Code) shall
comply with the requirements of the ISPS Code
relating to the Vessel and the Company. Upon
request the Owners shall provide a copy of
the relevant International Ship Security Certificate (or
the Interim International Ship Security Certificate)
in the Charterers. The Owners shall produce
the Charterers with all such documents and/or
the Company’s Security Officer (or an
ExxonMobil representative in the Charterer’s
Party, lose, damage, expense or delay, resulting
carriage of described, except in the event
the Owners or the Company to comply with
the requirements of the ISPS Code of this Clause
shall be for the Owners’ account.

(b) The Charterers shall provide the CSO and the
Ship Security Officer (SSO)/Master with their full
data, contact details and, where sub letting is
permitted under the terms of this Charter Party,
shall ensure that the contact details of all sub-
charterers are provided to the CSO and the
SSO/Master. Furthermore, the Charterers
shall ensure that all sub-charter parties they enter

ANNEX: Examples of charter contracts
Annex: Examples of charter contracts

PART II

BOXTIME 2004 Standard Time Charter Party for Container Vessels

into during the period of this Charter Party contain

(1) The Charterer shall provide the Owners with their full style contract details and, where sub-leasing is permitted under the terms of this Charter Party, shall ensure that the contact details of all sub-charterers are likewise provided to the Owners.

(b) Except as otherwise provided in this Charter Party, loss, damage, expense or delay, excluding consequential loss, caused by failure on the part of the Charterer to comply with this Clause shall be borne by the Charterer.

(II) Without prejudice to anything else contained in this Charter Party, all delay, costs or expenses whatsoever arising out of or relating to secrecy regulations or measures required by the port authority or any relevant authority in accordance with the SPP Code including, but not limited to security procedures, advance notice and identification of persons responsible for taking such actions and the Nº of passengers and cargo carried shall be for the Charterer's sole account and, unless such costs or expenses result solely from the Charterer's own fault or negligence, the charters required by the Owners to comply with the Ship Security Plan shall be for the Owners' account.

(1) If the vessel is at any port, the Charterer shall be liable for the account of the Charterer in respect of any loss or damage to passengers, charterers or goods for which the Charterer is liable under this Charter Party or any other agreement in connection with carriage on the vessel.

2. Bills of Lading, Waybills and Other Contracts of Carriage

(a) Negril Contracts of Carriage

(i) The Charterer and/or their agents are hereby authorized by the Owners to sign bills of lading, waybills, through bills of lading, or multimodal bills of lading (hereinafter collectively referred to as "Bills of Lading") on behalf of the Owners.

(ii) The Charterer shall indemnify the Owners against all consequential and liabilities arising therefrom.

(iii) The Charterer shall be responsible for all costs and expenses incurred by the Charterer in the performance of its obligations under this Charter Party.

(iv) The Charterer shall not be liable for any loss, damage, or delay resulting from any act or omission of the Charterer or any of its servants or agents.

(v) The Charterer shall be liable for all losses or damages to the Charterer or any of its servants or agents resulting from any act or omission of the Charterer or any of its servants or agents.

(vi) The Charterer shall not be liable for any loss, damage, or delay resulting from any act or omission of the Charterer or any of its servants or agents.

(vii) The Charterer shall indemnify the Owners against all costs and expenses incurred by the Owners in connection with the performance of its obligations under this Charter Party.

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Annex: Examples of charter contracts

PART II

DOWTIME 2004 Standard Time Charter Party for Container Vessels

17 The Charterers shall have no authority to make contracts imposing any obligations whatsoever upon the Owners or respect of the cargo or its carriage.

(e) General Average Exclusion: Nothing in this Clause

18 shall apply to preclude any claim made by the Owners upon any property on board the Vessel for general average contribution in accordance with the York-Antwerp Rules 1941.

(f) Claims Authority: The Charterers shall make no payment in excess of the amount stated in Box 26 in settlement of a claim for which they intend to seek recovery from the Owners without prior consultation with the Owners.

The Owners authorize the Charterers to grant extensions of time in respect of such claims provided the Charterers give the Owners immediate notice thereof.

(g) Personal Injury: The Charterers shall indemnify the Owners against and save the Owners harmless from and against all damages, losses, claims, expenses, costs or liabilities in respect of personal injury sustained by any person, whether passenger or crew, whilst on board the Vessel upon or occasioned by the operation of the Vessel, or in respect of any negligence of the Charterers in the operation of the Vessel.

(h) Charterer's Indemnification: The Charterers shall indemnify the Owners against all claims caused or contributed to by the negligence of the crew.

19. Owners' Responsibilities/Liabilities

(a) Containers and Goods: The Owners shall be liable for:

(i) their failure to exercise due diligence to keep the containers and goods seaworthy, and to maintain them in good working order, and to keep the containers and goods properly and carefully packed, banded and secured;

(ii) their failure to exercise due diligence to ensure that the containers and goods shall be properly and carefully packed, banded and secured;

(iii) their failure to exercise due diligence to ensure that the containers and goods shall be properly and carefully packed, banded and secured;

(iv) their failure to exercise due diligence to ensure that the containers and goods shall be properly and carefully packed, banded and secured;

(v) their failure to exercise due diligence to ensure that the containers and goods shall be properly and carefully packed, banded and secured;

(vi) their failure to exercise due diligence to ensure that the containers and goods shall be properly and carefully packed, banded and secured;

(b) Charterer's Cargo: If the cargo is the property of the Charterers, the Owners shall have the same responsibilities and liabilities as they would have had under this Charter if the cargo was the property of a third party and carried under a bill of lading incorporating the Hague-Visby Rules.

(c) Personnel Injury: Except as provided for in Clause 18(h) and unless caused or contributed to by the negligence of the Charterers, their servants, agents, or sub-contractors or any defect in the Charterers' containers, the Owners shall indemnify the Charterers against any claims for death or personal injury having a direct connection with the operation of the Vessel.

(d) Limitation of Liability: Subject always to the Owners' right to limit liability under the applicable limitation convention, the liability of the Owners to the Charterers for loss, damage or expense in respect of goods and containers as herein provided shall be limited as follows:

(i) in respect of goods liability shall be limited to $350 or $500 per package or unit or $350 per kilo of gross weight of the goods lost or damaged, whichever is the less;

(ii) in respect of containers, liability shall be limited to $350 or $500 per package or unit or $350 per kilo of gross weight of the goods lost or damaged, whichever is the less.

20. Refrigerated Goods

In respect of integral refrigerated containers or any other container with any machinery for temperature/ atmosphere control and any goods in such containers, the Owners shall be responsible for the provision of electrical power (see Clause 16(f)). The Owners shall monitor and record the performance of all such units minimum once daily whilst on board in accordance with the Charterers' instructions and to repair and re-rope any breakdown, fault or deficiency which may occur in such units, using the resources on board the Vessel, however
PART II

BOXTIME 2004 Standard Time Charter Party for Container Vessels

always subject to weather conditions. The Charterers shall

furnish the Master with separate written instructions

as regards the temperature setting of each reefer

container and condensing/capacity instructions to

be maintained during the voyage. The Charterers shall

arrange for reefer repair and maintenance to be

performed and to be paid for by the Charterers,

shipped on board the Vessel which shall include specialised tools

and spare parts. Such repair kits shall be replenished

by the Charterers upon the Master’s request. If

repair works are performed by the crew, all additional

expenses incurred by the Owners, including crew time

and spares parts not already supplied and paid for by

the Charterers, shall be for the account of the Charterers.

When the repairs are performed by the Charterers

during the course of the voyage the work shall be

considered as the Charterers’ services. The

Charterers shall pay for such works as stated in Box 30

if, however, repairs on board are still insufficient, the

Owners shall immediately notify the Charterers

and they may take action to have any required repairs

specialised by the Charterers. Except as provided above, the Owners shall not be liable

for malfunctioning of integrated refrigerated containers and

power packs put on board by the Charterers.

The Owners shall be entitled to reject and require

the Charterers to remove any container loaded at a

temperature not within the required container temperature

range. If, at the Charterers’ request, the Owners consent
to receive and carry such containers, the Charterers

shall hold the Owners harmless and indemnify them

gainst all consequences thereof and the Bills of Lading

shall be appropriately crossed. In respect of blown air

containers, the Owners shall be responsible only to

maintain the supply of air at the required temperature.

The above provisions shall be presented at the container

temperatures.

21. Exceptions

As between the Owners and the Charterers, responsibility for any loss, damage, delay or

failure of performance under this Charter Party shall not be dealt with in Clauses 25 and 26 shall be

subject to the following mutual exceptions:

A. Act of God, act of war, act of terrorism, civil commotion, strikes, lockouts, restrictions of

ports, railways, waterways and

restrictions

in any event of any consequence whatever

the above provisions shall be in no way affected

by the provisions to be off-hire in this Charter Party.

22. Navigation

Nothing herein stated is to be construed as a clause of agreement of the Vessel to the Charterers.

The Owners shall remain responsible for the navigation of the Vessel, acts of pilots and

agents thereof, insurance, crew, and all matters

same as when trading for their own account.

23. Insurances

(a) Hull and Machinery: The Owners shall insure the Vessel under Institute Time Clauses or similar

clauses for NGL trading against loss, damage and collision

liabilities for the insured value as stated in Box 22. Upon

10 days notice to the Charterers, the Owners shall be

entitled to effect any reasonable change to the insured

value of the Vessel. The Charterers shall take out

insurance for Charterers’ liability for the insured value of the Vessel. The Owners agree that their insured

value for the purpose of this Charter shall represent the

Charterers’ maximum liability for damage to the Vessel in accordance with Clauses 14 and 15, including
time spent on repairs.

(b) Protection and indemnity (P&I): The Owners and the Charterers shall ensure that the Vessel is fully

covered with their respective P&I Clubs as indicated in

Boxes 26 and 27. The Owners and the Charterers shall

not change P&I Clubs without the prior written consent

of the other party, which shall not unreasonably

withheld.

(c) War Risks: Notwithstanding the provisions of

Clause 26 and 27, the Owners shall ensure the Vessel

against War Risks and War Risk Premiums for NGL trading

areas but excluding any restricted or prohibited areas

or areas designated as a war zone and irrespective of

whether or not insurance may be available on payment

of an additional premium.

(d) Maintenance of Insurance: The Owners and

Charterers warrant that the above insurances will be

 maintained with all calls paid up to date throughout

the currency of this Charter Party.

24. BIMCO Ice Clause for Time Charter Parties

(a) The Vessel shall not be obliged to force ice but,

subject to the Owners’ agreement having due regard
to

the ice, construction and class, may follow ice-breakers.

(b) The Vessel shall not be required to enter or remain

in any icebound port or area, nor are any port or area

where lights, lightships, markers or buoys have been or are

about to be withdrawn by reason of ice, nor where on

account of ice there is, in the Master’s sole discretion,
a risk that, in the ordinary course of events, the

Vessel will not be able to leave and enter the port or

area or to depart after completion of loading or

discharging. If, on account of ice, the Master in his

sole discretion considers it unsafe to proceed to, enter

or remain at the place of loading or discharging for fear

of the Vessel being broken in or damaged, he shall

be at liberty to sail to the nearest ice-free and safe place

and there await the Charterers’ instructions.

(c) Any delay or deviation caused by or resulting from

ice shall be for the Charterers’ account and the Vessel

shall remain on-hire.

(d) Any additional voyage costs or any duty required

by the Vessel’s classification due to the ice conditions

or remaining in icebound areas, shall be for the

Charterers to pay.


(a) For the purpose of this Clause, the words:

(i) “Owner” shall include the shipowners, bareboat

charterers, disposed owners, managers or other

operators who are charged with the management

of the Vessel, and the Master,

(ii) “War Risks” shall include any actual, threatened

or expected war, act of war, civil war, hostility,

revolution, rebellion, civil commotion, warlike

operations, laying of mines, acts of piracy, acts of

terrorism, acts of hostility or malicious damage,

blockades (whether imposed against all vessels

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Annex: Examples of charter contracts

283
Annex: Examples of charter contracts

PART II

BOXLINE 2004 Standard Time Charter Party for Container Vessels

the parties may agree) the arbitration shall be conducted in accordance with the LMAA Small Claims Procedure current at the time when the arbitration proceedings are commenced.

(a) This Charter Party shall be governed by and construed in accordance with Title II of the United States Code and the Maritime Law of the United States and any dispute arising out of or in connection with this Charter Party shall be referred to three persons in New York, one to be appointed by each of the parties hereto, and the third by the two so chosen; their decision or that of any two of them shall be final, and for the purposes of enforcing any award, judgment may be entered on an award of any court of competent jurisdiction. The proceedings shall be conducted in accordance with the Rules of the Society of Maritime Arbitrators, Inc.

In cases where neither the ship nor the cargo shall exceed the sum of US$20,000 or a sum not exceeding the sum of US$20,000, the parties may agree that the arbitration shall be conducted in accordance with the Shortened Arbitration Procedure of the Society of Maritime Arbitrators, Inc. current at the time when the arbitration proceedings are commenced.

(b) This Charter Party shall be governed by and construed in accordance with the laws of the place mutually agreed by the parties and any dispute arising out of or in connection with this Charter Party shall be referred to arbitration at a mutually agreed place, subject to the procedures applicable thereto.

(c) Notwithstanding (a) or (b) above, the parties may agree at any time to refer to mediation any dispute or dispute arising out of or in connection with this Charter Party.

In the case of a dispute in respect of which arbitration has been commenced under (a), (b) or (c) above, the following shall apply:

(i) Either party may at any time and from time to time elect to refer the dispute or part of the dispute in mediation by service on the other party of a written notice (the "Mediation Notice") calling on the other party to agree to mediation.

(ii) The other party shall thereupon within 14 calendar days of receipt of the Mediation Notice confirm that they agree to mediation, in which case the parties shall thereafter agree a mediator within a further 14 calendar days, failing which the application of either party a mediator will be appointed promptly by the Arbitration Tribunal ("the Tribunal") or such person as the Tribunal may designate for that purpose. The mediation shall be conducted in such place and in accordance with such procedure and on such terms as the parties agree in the event of disagreement it may be conducted by the mediator.

(iii) If the other party does not agree to mediation then fact may be brought to the attention of the Tribunal and may be taken into account by the Tribunal when allocating the costs of the arbitration as between the parties.

(iv) The mediation shall not affect the right of either party to seek such relief or take such steps as it considers necessary to protect its interests.

(v) Either party may advise the Tribunal that they have agreed to mediation. The arbitration procedure shall continue during the conduct of the mediation but the Tribunal may take the mediation timetable into account when setting the timetable for steps in the arbitration.

(vi) Unless otherwise agreed or specified in the mediation terms, each party shall bear its own costs incurred in the mediation and the parties shall share equally the mediator's costs and expenses.

(vii) The mediation process shall be without prejudice and confidential and no information or documents disclosed during the mediation shall be given to the other party except to the extent that they are necessary under the law and procedure governing the arbitration.

(Not: The parties should be aware that the mediation process may not necessarily extend time limits.)

(If Box 32 in PART I is not appropriately filled in, sub-clause 26(a) of this Clause shall apply. Sub-clause 26(d) shall apply in all cases.)

Sub-clauses 26(a), 26(b) and 26(c) are alternatives; indicates alternative agreed in Box 32.

21. Commission

The Owners shall pay a commission at the rate stated in Box 33 to the Broker(s) stated in Box 33 on hire paid under this Charter Party or any continuation or extension thereof. If the full hire is not paid owing to breach of Charter Party by either of the parties the party paying thereof shall indemnify the Brokers against their loss of commission. Should the parties agree to cancel the Charter Party, the Owners shall indemnify the Brokers against any loss of commission but in such case the commission shall not exceed the brokerage on one year's hire.

In signing this Charter Party the Owners acknowledge their agreement with the Brokers to pay the commissions described in this Clause.

22. BIMCO Notices Clause

(a) All notices given by either party or their agents to the other party or their agents in accordance with the provisions of this Charter Party shall be in writing.

(b) For the purposes of this Charter Party, "in writing" shall mean any method of legible communication. A notice may be given by facsimile or by electronic means, including, but not limited to, telex, fax, email, or other electronic means.

(c) A claim may be given to the effect, with or without proof, that the charterers are uninsured or smouldering or in any manner unfair, or personal service.
## Voyage Charter– GENCON

<table>
<thead>
<tr>
<th>Part</th>
<th>Clause</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1.</td>
<td>Shipbroker</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>Place and date</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>General/Place of business (Cl. 1)</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>Charterers/Place of Business (Cl. 1)</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>Vessel’s name (Cl. 1)</td>
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<td>6.</td>
<td>GRT/ (Cl. 1)</td>
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<td>7.</td>
<td>DWT, all ton or summer load in metric tons (att) (Cl. 1)</td>
</tr>
<tr>
<td></td>
<td>8.</td>
<td>Present position (Cl. 1)</td>
</tr>
<tr>
<td></td>
<td>9.</td>
<td>Expected ready to load (att) (Cl. 1)</td>
</tr>
<tr>
<td></td>
<td>10.</td>
<td>Loading port/place (Cl. 1)</td>
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<tr>
<td></td>
<td>11.</td>
<td>Discharging port/place (Cl. 1)</td>
</tr>
<tr>
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<td>12.</td>
<td>Cargo (state, quantity and margin in Demand option; agreed: full and complete cargo, not agreed state “part cargo”) (Cl. 1)</td>
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<td></td>
<td>13.</td>
<td>Freight rate (state whether freight prepaid or payable at delivery) (Cl. 4)</td>
</tr>
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<td>14.</td>
<td>Freight payment (state, currency and method of payment, also beneficiary and bank account) (Cl. 4)</td>
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<td>15.</td>
<td>Rate for vessel’s cargo handling gear shall not be included (Cl. 7)</td>
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<td></td>
<td>16.</td>
<td>Laytime (state: laytime in std. and dock, is agreed, fill in std. and dock, if laytime for std. and dock, fill in std. only) (Cl. 6)</td>
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<td>17.</td>
<td>Shipper/Place of business (Cl. 6)</td>
</tr>
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<td></td>
<td>18.</td>
<td>Agents (loading) (Cl. 6)</td>
</tr>
<tr>
<td></td>
<td>19.</td>
<td>Agents (discharging) (Cl. 6)</td>
</tr>
<tr>
<td></td>
<td>20.</td>
<td>Demurrage rate and allowance (loading and discharging) (Cl. 7)</td>
</tr>
<tr>
<td></td>
<td>21.</td>
<td>Calming dates (Cl. 9)</td>
</tr>
<tr>
<td></td>
<td>22.</td>
<td>General Average to be adjusted at (Cl. 12)</td>
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<td>23.</td>
<td>Freight rate shall be paid in the General account (Cl. 13)</td>
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<td></td>
<td>24.</td>
<td>Brokerage commission and to whom payable (Cl. 15)</td>
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<td></td>
<td>25.</td>
<td>Law and jurisdiction (as (a), (b) or (c) of Cl. 19) if (b) is agreed also state Place of Arbitration (if not filled in 19) (d) shall apply (Cl. 19)</td>
</tr>
<tr>
<td></td>
<td>26.</td>
<td>Additional clauses covering special provisions, if agreed</td>
</tr>
</tbody>
</table>

This contract is subject to the conditions contained in this Charter, which shall include Part I as well as Part II. In the event of a conflict of conditions, the provisions of Part I shall prevail over those of Part II to the extent of such conflict.

**Signature** (Shire) **Signature** (Charterer)

Printed by The BIMCO Charter Party Editor
Annex: Examples of charter contracts

### PART II

#### “Gencor” Charter (As Revised 1922, 1976 and 1994)

1. It is agreed between the party mentioned in Box 3 as the Owners of the Vessel named in Box 5 of the GENCOR indicated in Box 6 and carrying the number of metric tons of deadweight capacity at all and on summer condition stated in Box 7, now in position as stated in Box 8 and expected ready to load under this Charter Party as indicated in Box 9 and the party mentioned as the Charterers in Box 10.

2. The said Vessel shall, as soon as her prior commitments have been completed, proceed to the loading port or ports or place(s) stated in Box 13 or any other port as the Charterers may, by notice in writing, require and shall sail for and load in the Port or Ports or Place(s) stated in Box 14 as soon as she may safely get to and be always afloat, and there load a full and complete cargo of all cargo agreed to be shipped and to be carried as agreed in Box 14, and, so far as the Vessel shall proceed to the discharging port or ports or place(s) stated in Box 19, as so agreed, against the Charterers’ bills of lading, or so far as there she may safely get to and be always afloat, and there deliver the cargo.

3. **Owners’ Responsibility Clause**

The Owners are to be responsible for loss of or damage to the goods or for failure to deliver the goods only in case the loss, damage or delay has been caused by personal want of due diligence on the part of the Owners or their Manager (to be notified to the Charterers in all respects thoroughly and to assure that she is properly stocked, loaded and shipped, and, to the satisfaction of the party in whose charge the Vessel may be at any time or at any place, whatsoever.

4. **Payment of Freight**

(a) The freight at the rate stated in Box 13 shall be paid in cash calculated on the basis of the capacity of the vessel.

(b) **Prelim.** If according to Box 13 freight is to be paid on shipment, it shall be debited and cleared, and no assessment where the vessel or cargo or any part thereof is not available to the Charterers for loading or unloading before the time for which the freight is liable.

(c) On delivery, if according to Box 13 freight is to be paid at delivery, it shall be debited and cleared according to the charter, as the case may be, and no assessment where the vessel or any part thereof is not available to the Charterers for delivery before the time for which the freight is liable.

5. **Loading/Discharging**

(a) **Charterer’s Risk.** The cargo shall be loaded and discharged in the port or ports or place(s) stated in Box 13, and the Charterers, having discharged the cargo and the vessel, shall remain responsible for the loss or damage caused by the Charterers’ negligence or misconduct.

(b) **Cargo Handling Gear.** Unless the vessel is provided with or unless it has been agreed between the parties that the vessel shall not be used shall be included in Box 14, the Charterers shall be responsible for the loss or damage caused by the Charterers’ negligence or misconduct.

6. **Demurrage**

Demurrage as the loading and discharging and is payable by the Charterers at the rate stated in Box 13 to the Charterers for any port or any day or any period or any part of a day, and shall be payable on receipt of the Charterers’ receipt.

7. **Speed of Vessel**

(a) The Vessel will be ready to load (whether in port or not) on the date referred to in Box 14, and the Charterers shall have the option of cancelling this Charter Party after the 15th day of the month referred to in Box 14, and any part of a day, and shall be payable on receipt of the Charterers’ receipt.

(b) The Charterers shall be responsible for the loss or damage caused by the Charterers’ negligence or misconduct.

(c) **Charterer’s Risk.** The Charterers shall be responsible for the loss or damage caused by the Charterers’ negligence or misconduct.

8. **Cancelling of Charter Party**

(a) **Charterer’s Option.** If the Vessel shall be ready to load (whether in port or not) on the date referred to in Box 14, and the Charterers shall have the option of cancelling this Charter Party after the 15th day of the month referred to in Box 14, and any part of a day, and shall be payable on receipt of the Charterers’ receipt.

(b) **Charterer’s Option.** If the Charterers shall be responsible for the loss or damage caused by the Charterers’ negligence or misconduct.

(c) **Charterer’s Risk.** The Charterers shall be responsible for the loss or damage caused by the Charterers’ negligence or misconduct.
PART II

"Gencor Charter (As Revised 1922, 1976 and 1994)"

the seventh day after the receipt of an order to the effect set forth in the Owner’s notice to the Charterer.

The possession of such a vessel as is set forth in the Charterer’s notice to the Owner shall be given to the Charterer.

The Charterer shall keep the Order Governmentally and in accordance with the provisions of the Charter dated from the day on which the Order was received until the completion of the voyage

10 Bills of Lading

a) The Order shall be signed and presented by the Owner to the Charterer for transmission to the Charterer.

b) The Order shall be signed and presented by the Charterer to the Owner for transmission to the Charterer.

11. Both to Bares Custom Clause

If the vessel runs into collision with another vessel as a result of the negligence of the other vessel and any accident, set, or part of the other vessel, 186

12. General Average and New Clause

a) Any vessel and any part of any vessel, 187

b) Any vessel and any part of any vessel, 188

13. Treated Does None

a) The Owner shall pay all expenses, 190

b) The Owner shall pay all expenses, 191

14. Agency

a) If the Charterer appoints his own agent, 192

b) If the Charterer appoints his own agent, 193

15. Brokerage

a) A brokerage commission will be paid to the Owner, 210

b) A brokerage commission will be paid to the Owner, 211

16. General Strike Clause

a) If there is a strike or lockout affecting the present or subsequent dealings of the vessel, 217

b) If there is a strike or lockout affecting the present or subsequent dealings of the vessel, 218

17. War Risks ("Yemen 1980")

a) The "Yemen" or "Yemen 1980" is an amendment, 247

b) The "Yemen" or "Yemen 1980" is an amendment, 248

Note

This part of the document contains the text of the original text, with the amendments and corrections indicated by superscript numbers. The amendments and corrections are not part of the original text but are included to provide a clearer understanding of the text. The original text is indicated by regular text, while the amendments and corrections are indicated by superscript numbers. The amendments and corrections are not part of the original text but are included to provide a clearer understanding of the text. The original text is indicated by regular text, while the amendments and corrections are indicated by superscript numbers.

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Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments

287
PART II

"Gencon" Charter (As Revised 1922, 1976 and 1994)

Annex: Examples of charter contracts

10. Law and Arbitration

(a) This Charter Party shall be governed by and construed in accordance with English law and any dispute arising out of this Charter Party shall be referred to arbitration in London in accordance with the Arbitration Act 1960 and/or any statutory modification or enactment for the time being in force.

(b) Unless the parties agree upon a sole arbitrator, three arbitrators shall be appointed by each of the parties, and the said arbitrators being chosen, their decision or that of any two of them shall be final.

(c) Any award made under this Charter Party shall be conducted in accordance with the Small Claims Procedure of the London Maritime Arbitrators Association.

(d) If the Charter Party is governed by and construed in accordance with the Arbitration Act 1996, the tribunal shall be conducted in accordance with the Small Claims Procedure of the London Maritime Arbitrators Association.

19. General or Clause

Part of Loading

(a) In the event of the loading port being inaccessible by reason of ice when the Charterer shall be entitled to cancel the charter part or to extend the voyage or to

(b) On the vessel's arrival in or at place as in the port of loading, the Charterer shall be entitled to cancel the charter part or to extend the voyage or to

(c) If during the loading in the case of a vessel being icebound or icebound, the Charterer shall be entitled to cancel the charter part or to extend the voyage or to

(d) On the vessel's arrival at or in the port of discharge, the Charterer shall be entitled to cancel the charter part or to extend the voyage or to

(e) In the event of more than one loading port or if one or more of the ports are closed by ice, the Charterer shall be entitled to cancel the charter part or to extend the voyage or to

(f) Part of discharge

(a) Where the vessel is required to discharge cargo at a port not being directly accessible to the Charterer, the Charterer may elect to discharge the cargo at a safe and

(b) Immediately after the discharge of the cargo, the Charterer may elect to discharge the cargo at a safe and

(c) Where the vessel is required to discharge cargo at a port not being directly accessible to the Charterer, the Charterer may elect to discharge the cargo at a safe and

(d) Immediately after the discharge of the cargo, the Charterer may elect to discharge the cargo at a safe and

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(k) Where the vessel is required to discharge cargo at a port not being directly accessible to the Charterer, the Charterer may elect to discharge the cargo at a safe and

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(t) Immediately after the discharge of the cargo, the Charterer may elect to discharge the cargo at a safe and

(u) Where the vessel is required to discharge cargo at a port not being directly accessible to the Charterer, the Charterer may elect to discharge the cargo at a safe and

(v) Immediately after the discharge of the cargo, the Charterer may elect to discharge the cargo at a safe and

(w) Where the vessel is required to discharge cargo at a port not being directly accessible to the Charterer, the Charterer may elect to discharge the cargo at a safe and

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(A) Where the vessel is required to discharge cargo at a port not being directly accessible to the Charterer, the Charterer may elect to discharge the cargo at a safe and
Standard ship management agreement – SHIPMAN98

<table>
<thead>
<tr>
<th>1. Date of Agreement</th>
<th>THE BALTIC AND INTERNATIONAL MARITIME COUNCIL (BIMCO)</th>
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<tr>
<td></td>
<td>STANDARD SHIP MANAGEMENT AGREEMENT</td>
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<td></td>
<td>CODE NAME: &quot;SHIP MAN 98&quot;</td>
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<tr>
<th>2. Owners (name, place of registered office and law of registry)</th>
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<tr>
<td>Name</td>
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<tr>
<td>Place of registered office</td>
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<td>Law of registry</td>
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<th>3. Managers (name, place of registered office and law of registry)</th>
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<tr>
<td>Name</td>
</tr>
<tr>
<td>Place of registered office</td>
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<tr>
<td>Law of registry</td>
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| 4. Day and year or commencement of Agreement | (CL 2)        |

<table>
<thead>
<tr>
<th>5. Crew Management (state &quot;yes&quot; or &quot;no&quot; as agreed)</th>
<th>(CL 3.1)</th>
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<tr>
<th>6. Technical Management (state &quot;yes&quot; or &quot;no&quot; as agreed)</th>
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<tr>
<th>7. Commerce Management (state &quot;yes&quot; or &quot;no&quot; as agreed)</th>
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<tr>
<th>8. Marketing Arrangements (state &quot;yes&quot; or &quot;no&quot; as agreed)</th>
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<tr>
<th>9. Accounting Services (state &quot;yes&quot; or &quot;no&quot; as agreed)</th>
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| 10. Sale or purchase of the vessel (state "yes" or "no" as agreed) | (CL 3.6) |
|                                                                    |          |

| 11. Provision (state "yes" or "no" as agreed) | (CL 3.7) |
|                                                |          |

| 12. Bare Nosing (state "yes" or "no" as agreed) | (CL 3.8) |
|                                                 |          |

| 13. Chartering Services Period only if the ship is chartered | (CL 3.10) |
|                                                            |          |

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<thead>
<tr>
<th>14. Owners' insurance (state alternative (1/1) or (B) (CL 3.11))</th>
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| 15. Annual Management Fee (state annual amount) | (CL 3.12) |
|                                                 |          |

| 16. Severance Cost (state maximum amount) | (CL 3.13) |
|                                          |          |

| 17. Day and year of termination of Agreement | (CL 3.14) |
|                                            |          |

| 18. Law and Arbitration (state alternative: 12.1, 12.2 or 12.3; place of arbitration must be stated) | (CL 1.14) |
|                                                                                                         |          |

| 19. Notices (state postal and cable address, telelex and telephone number for serving notice and communication to the Owners) | (CL 29) |
|                                                                                                               |          |

| 20. Notices (state postal and cable address, telelex and telephone number for serving notice and communication to the Managers) | (CL 20) |
|                                                                                                           |          |

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ANNEX “A” (DETAILS OF VESSEL OR VESSELS) TO
THE BALTIC AND INTERNATIONAL MARITIME COUNCIL (BIMCO)
STANDARD SHIP MANAGEMENT AGREEMENT - CODE NAME: “SHIPMAN 98”

Date of Agreement:

Name of Vessel(s):

Particulars of Vessel(s):
ANNEX “B” (DETAILS OF CREW) TO
THE BALTIC AND INTERNATIONAL MARITIME COUNCIL (BIMCO)
STANDARD SHIP MANAGEMENT AGREEMENT - CODE NAME: “SHIPMAN 98”

Date of Agreement:

Details of Crew:

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<tr>
<th>Numbers</th>
<th>Rank</th>
<th>Nationality</th>
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</table>

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ANNEX “C” (BUDGET) TO
THE BALTIC AND INTERNATIONAL MARITIME COUNCIL (BIMCO)
STANDARD SHIP MANAGEMENT AGREEMENT - CODE NAME: “SHIPMAN 98”

Date of Agreement:

Managers’ Budget for the first year with effect from the Commencement Date of this Agreement:
ANNEX “D” (ASSOCIATED VESSELS) TO
THE BALTIC AND INTERNATIONAL MARITIME COUNCIL (BIMCO)
STANDARD SHIP MANAGEMENT AGREEMENT - CODE NAME: “SHIPMAN 98”

NOTE: PARTIES SHOULD BE AWARE THAT BY COMPLETING THIS ANNEX “D”
THEY WILL BE SUBJECT TO THE PROVISIONS OF SUB-CLAUSE 18.1(I) OF THIS
AGREEMENT.

Date of Agreement:

Details of Associated Vessels:
PART II

"SHIPMAN 99" Standard Ship Management Agreement

1. Definitions

In this Agreement case where the context otherwise requires, the following words and expressions shall have the meanings hereby assigned to them:

"Owners" means the party identified in Box 2.

"Managers" means the party identified in Box 3.

"Vessels" means the vessels or vessels details of which are set out in Annex A.1 attached hereto.

"Crew" means the Master, officers and ratings of the vessel, their number, rank and nationality as specified in Annex 2.2 attached hereto.

"Crew Support Costs" means all expenses of a general nature whom are not particularly referable to any individual vessel for the time being managed by the Managers and which are incurred by the Managers for the purpose of efficient and economic management service and, without prejudice to the generality of the foregoing, shall include the cost of crew standby pay, training services for officers and crews, quality training services, pay, study pay, recruitment and interviews.

"Overhead Costs" means the costs which the employer is legally entitled to pay in accordance with the regulations of the country where the vessel is registered or the agreed terms of employment. Accounts for the early termination of any employment contract for service on the Vessel.

"Crew Insurance" means insurance against accidents which shall include but not be limited to death, sickness, invalidity, injury, shipwreck, unemployment indemnity and loss of personal effects.

"Management Services" means the services specified in sub-clauses 3.1 to 3.5 as modified in Annex B.2 and as modified in the International Management Code for the Safe Operation of Ships and for Pollution Prevention as adopted by the International Maritime Organization (IMO) by resolution A.741(15) or any subsequent amendment thereof.

"STCW 95" means the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers as adopted in 1995 or any subsequent amendment thereof.

2. Appointment of Managers

With effect from the day and place stated in Box 4, the managers shall be the managers and shall be entitled to act as the Managers of the Vessel.

3. Basis of Agreement

Subject to the terms and conditions herein provided, during the period of this Agreement, the Managers shall carry out Management Services in respect of the Vessel as agents for and on behalf of the Owners. The Managers shall have authority to take such actions as they may from time to time in their absolute discretion consider to be necessary to enable them to perform this Agreement in accordance with sound ship management practices.

3.1 Crew Management

(i) The Managers shall provide the crew management services to the Vessel.

The Managers shall provide such services as are required by the Owners in accordance with the STCW 95 requirements, provision of which includes but is not limited to the following functions:

(a) selecting and engaging the Vessel's Crew, including personnel arrangements, pension administration, and insurance for the Crew other than those mentioned in Clause 5.

(b) ensuring that the Vessel's Crew is in possession of valid medical certificates issued in accordance with applicable flag State requirements. In the absence of applicable flag State requirements, the medical certificate shall be dated no more than three months prior to the respective Crew members leaving their country of domicile and maintained for the duration of their service on board the Vessel;

(iv) ensuring that the Crew shall have a command of the English language of a sufficient standard to enable them to perform their duties safely;

(v) arranging transportation of the Crew, including repatriation;

(vi) training of the Crew and supervising their efficiency;

(vii) conducting union negotiations;

(viii) operating the Managers' drug and alcohol policy unless otherwise agreed.

3.2 Technical Management

(i) The Managers shall provide technical management which includes, but is not limited to, the following functions:

(b) provision of repair and maintenance of the Vessel and the equipment provided by the Owners provided that the Managers shall be entitled to have the necessary expenditure to ensure that the Vessel will comply with the law of the flag of the Vessel and of the states where it trades, and all agreements and recommendations of the classification society;

(c) arrangement of supply of necessary stores, spares and lubricating oil;

(d) appoinment of surveyors and technical consultants as the Managers may consider from time to time to be necessary;

(e) maintenance, rectification and maintenance of a Safety Management System (SMS) in accordance with the ISM Code (see sub-clauses 5.2.1 and 5.3).

3.3 Commercial Management

(i) The Managers shall provide the commercial operation of the Vessel, as required by the Owners, which includes, but is not limited to, the following functions:

(b) providing chartering services in accordance with the Owners' instructions which includes, but are not limited to, seeking and negotiating employment for the Vessel and the conclusion (including the execution thereof) of charter parties or other contracts relating to the employment of the Vessel. If such a contract exceeds the period stated in Box 5, contact between Managers and Owners shall be maintained to ensure that the Vessel is utilized to the maximum extent possible.

(c) ensuring that the proper payment to Owners or their nominees of all hire, freight and other revenues or other monies of whatsoever nature to Owners may be entitled arising out of the employment of or otherwise in connection with the Vessel.

(d) ensuring that all revenues from the charter parties, including any amounts payable to Owners or their nominees in respect of any freight, hire or other revenue or other monies, are applied in accordance with the instructions of Owners or their nominees.

(e) ensuring that all revenues from the charter parties, including any amounts payable to Owners or their nominees in respect of any freight, hire or other revenue or other monies, are applied in accordance with the instructions of Owners or their nominees.

4. Insurance Arrangements

(i) The Managers shall arrange insurance in accordance with Clause 5, on such terms and conditions as the Owners shall from time to time agree or as the Managers shall from time to time agree conditioned.

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Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments

PART II

“SHIPMAN 98 STANDARD SHIP MANAGEMENT AGREEMENT”

6. INSURANCE POLICIES

The Owners shall procure, whether by instructing the Managers under sub-clause 2.5 or otherwise, that throughout the period of this Agreement:

6.1 at the Owners’ expense, the Vessel is insured for not less than her sound market value or enters for full gross tonnage, as the case may be for:

(a) total and general average risks (including Salvage, Repairs and Insurance);

(b) all risks (including protection and indemnity and crew risks) in accordance with the best practice of prudent owners of vessels of a similar type to the Vessel, with first class insurance companies, underwriters or associations (the “Owners’ Insurance”);

6.2 at Owners’ expense and costs on the Owners’ Insurances are paid promptly by their due date.

6.3 the Owners’ Insurances name the Managers and subject to underwriters’ agreement, any third party designated by the Managers as a co-insured, with full cover, with the Owners obtaining copies thereof of each of the Insurances specified in sub-clause 6.2.

(i) on the appointment by the Managers and any such third party acting as the Insurers to assume, at the request of the Owners or at the Managers’ expense, any liabilities, risks or expenses arising in connection with the Insurers or insurance policies;

(ii) in respect of the Managers and any such third party acting as the Insurers to assume, at the request of the Owners or at the Managers’ expense, any liabilities, risks or expenses arising in connection with the Insurers or insurance policies;

(iii) on such other terms as may be agreed in writing.

Issue alternative 6.2 (i) or (ii) or both in Box 16. If Box 16 is left blank then (i) applies.

6.4 Written evidence is provided, to the reasonable satisfaction of the Managers, of compliance with their obligations under Clause 5 within a reasonable time of the commencement of this Agreement, and of each renewal date and, if specifically required, of each payment date of the Managers’ Insurances.

7. EXPENSES COLLECTED AND EXPENSES PAID ON BEHALF OF OWNERS

7.1 All money collected by the Managers under the terms of this Agreement (other than money payable by the Owners to the Managers) and any interest thereon shall be paid to the credit of the Owners in a separate bank account.

7.2 All expenses incurred by the Managers under the terms of this Agreement on behalf of the Owners (including expenses as provided in Clause 6) may be paid against the account of the Owners in the account referred to under sub-clause 7.1 but shall in any event remain payable by the Owners to the Managers on demand.

8. MANAGEMENT FEE

8.1 The Owners shall pay to the Managers for their services as Managers under this Agreement an annual management fee as stated in Box 15 which shall be payable by equal monthly installments in advance, the first installment being payable on the commencement of this Agreement (see Clause 2 and Box 9) and subsequent installments being payable every 24 months.

8.2 The management fee shall be subject to an annual review on the anniversary date of the Agreement and the proposed fee shall be presented in the annual budget referred to in sub-clause 9.1.

8.3 The Managers shall, at their own cost to the Owners, provide their own office accommodation, office staff, facilities and stationery. Without limiting the generality of Clause 7, the Owners shall reimburse the Managers for postage and telecommunication expenses, travelling expenses, and other out of pocket expenses properly incurred by the Managers in pursuance of
PART II

“SHIPMAN 98” Standard Ship Management Agreement

11.1 Force Majeure - Neither the Owners nor the Managers shall be under any liability for any failure to perform any of their obligations hereunder by reason of any cause whatsoever of which they had no previous knowledge, and of which they cannot reasonably be held responsible.

11.2 Liability to Owners - (i) Without prejudice to sub-clause 11.1, the Managers shall be under no liability whatsoever to the Owners for any loss, damage, delay or expense of whatsoever nature, whether direct or indirect, including (but not limited to) loss of profit arising out of or in connection with alteration or delay to the Vessel or knowledge regarding the course of performance of the Management Services UNLESS same is proved to have resulted solely from the negligence, gross negligence or willful default of the Managers or their employees, or agents or sub-contractors engaged by them in connection with the Vessel, in which case the Managers shall be responsible for the amount of such loss, damage, delay or expense which is attributable to such negligence, gross negligence or willful default.

296
**PART II**

"SHIPMAN 96" Standard Ship Management Agreement

13. General Administration
13.1 The Managers shall handle and settle all claims arising out of the Management Services hereunder and keep the Owners informed regarding any incident of which the Managers become aware which gives or may give rise to claims or disputes involving third parties.

13.2 The Managers shall, as instructed by the Owners, bring or defend actions, suits or proceedings in connection with matters entrusted to the Managers according to this Agreement.

13.3 The Managers shall also have power to obtain legal or technical or other outside expert advice in relation to the handling and settlement of claims and disputes or all other matters affecting the interests of the Owners or the Vessel.

13.4 The Owners shall arrange for the provision of any necessary guarantee bond or other security.

13.5 Any costs reasonably incurred by the Managers in carrying out their obligations according to this Agreement shall be reimbursed by the Owners.

14. Auditing
The Managers shall at all times maintain and keep true and correct accounts and shall make the same available for inspection and auditing by the Owners at such times as may be mutually agreed. On the termination, for whatever reasons, of this Agreement, the Managers shall deliver to the Owners, if so requested, the originals where possible, or otherwise certified copies of all such accounts and all documents specifically relating to the Vessel and its operation.

15. Inspections of Vessel
The Managers shall have the right at any time to inspect the Vessel and to take photographs of the same as consideration for any reason they consider necessary.

16. Compliance with Laws and Regulations
Notwithstanding the obligations of the Managers, the Managers will not be liable for any breach or infringement of regulations of the Vessel’s flag, or of the States where she trades.

17. Duration of the Agreement
This Agreement shall come into effect on the day and year stated in Article 16 and shall continue until the date upon which such notice was given.

18. Termination
18.1 Owners’ default
(i) If the Managers have terminated the Agreement in accordance with Article 14, and the Managers have not received the Owners’ written reinstatement request within six months from the date of the notice, the Managers shall be entitled to terminate the Agreement.

(ii) If the Owners fail to meet their obligations under sub-clauses 5.2 and 5.4 of this Agreement, the Managers may terminate the Agreement immediately.

(iii) If the Owners fail to meet their obligations under sub-clauses 5.2 and 5.4 of this Agreement, the Managers may terminate the Agreement immediately.

(iv) If the Managers terminate the Agreement under sub-clauses 5.2 and 5.4 of this Agreement, the Managers shall give the Owners a written notice of their intention to terminate.

19. Law and Arbitration
19.1 This Agreement shall be governed by and construed in accordance with English law and any dispute arising out of or in connection with this Agreement shall be referred to arbitration in London in accordance with the Arbitration Act 1996. Any statutory modification or re-enactment thereof shall be to the extent necessary to give effect to the provisions of this Clause.

19.2 The arbitration shall be conducted in accordance with the London Maritime Arbitration Association (LMAA) Terms current at the time when the arbitration proceedings are commenced.

19.3 The reference shall be the three arbitrators. A party wishing to refer a dispute to arbitration shall appoint its arbitrator and send notice of such appointment in writing to the other party requesting the other party to appoint its arbitrator within 14 calendar days of notice.

19.4 If the arbitrators appointed do not agree, the parties may submit to the arbitration of a sole arbitrator, or a party may be appointed by the LMAA to act as sole arbitrator.

19.5 If the arbitrators appointed do not agree, the parties may submit to the arbitration of a sole arbitrator, or a party may be appointed by the LMAA to act as sole arbitrator.
Annex: Examples of charter contracts

PART II
"SHIPMAN 98" Standard Ship Management Agreement

525 arbitrator and shall advise the other party accordingly. The
526 award of a sole arbitrator shall be binding on both parties
527 as if it had been appointed by agreement.
528 Nothing herein shall prevent the parties agreeing in writing
529 to vary these provisions to provide for the appointment of a
530 sole arbitrator.
531 In cases where neither the claim nor any counterclaim
532 exceeds the sum of USD3,000 (or such other sum as the
533 parties may agree) the arbitration shall be conducted in
534 accordance with the IMAA Small Claims Procedure current
535 at the time when the arbitration proceedings are commenced.
536
537 19.2 This Agreement shall be governed by and construed
538 in accordance with Title 9 of the United States Code and
539 the Maritime Law of the United States and any disputes
540 arising out of or in connection with this Agreement shall be
541 referred to persons of New York, one to be appointed
542 by each of the parties hereto, and the third by the two so
543 chosen, their decision or that of any two of them shall be
544 final, and for the purposes of enforcing any award,
545 judgement may be entered on an award by any court of
546 competent jurisdiction. The proceedings shall be conducted
547 in accordance with the rules of the Society of Maritime
548 Arbitrators, Inc.
549 In cases where neither the claim nor any counterclaim
550 exceeds the sum of USD3,000 (or such other sum as the
551 parties may agree) the arbitration shall be conducted in
552
553 accordance with the Shortened Arbitration Procedure of the
554 Society of Maritime Arbitrators, Inc. current at the time when
555 the arbitration proceedings are commenced.
556
557 19.3 This Agreement shall be governed by and construed
558 in accordance with the laws of the place mutually agreed by
559 the parties and any dispute arising out of or in connection
560 with this Agreement shall be referred to arbitration at a
561 mutually agreed place, subject to the procedures applicable
562 there.
563
564 19.4 If Box 18 in Part I is not appropriately filled in, sub-
565 clause 19.1 of this Clause shall apply.
566
567 Note: 19.1, 19.2, and 19.3 are alternatives; indicate
568 alternative agreed in Box 18.
569
570 20. Notices
571
572 20.1 Any notice to be given by either party to the other
573 party shall be in writing and may be sent by fax, telex,
574 registered or recorded mail or by personal service.
575
576 20.2 The address of the Parties for service of such
577 communication shall be as stated in Box 16 and 17
578 respectively.
579
580
581 This document a computer generated "SHIPMAN 98" form printed by authority of INAC. Any instruction or division to this form must be clearly visible. In the event of any modification made to the pre
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Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments
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This Handbook represents the first comprehensive overview of conceptual and practical issues related the compilation of statistics on sea and air transport in national accounts (NA) and balance of payments (BOP).

Estimating the contribution of the use of vessels and aircraft to national economies is challenging due to the complexity of shipping and aviation business models and infrastructure. However, statistical institutions and data users have increasingly recognised the need for comprehensive, reliable and internationally available information on sea and air transport in NA and BOP.

The purpose of this handbook is to increase and improve existing understanding of economic activities in shipping and aviation. This allows interpreting international manuals and guides, relevant for collecting and compiling sea and air transport statistics, in a consistent and coordinated way.

This handbook is the result of the joint work of the members of the Eurostat Task Force on the compilation of statistics on sea and air transport, consisting of experts from Eurostat Unit C5 Balance of Payments and Integrated Global Accounts, European national statistical institutes and central banks, as well as the ECB. This handbook benefits from contributions of experts working in the maritime and aviation cluster.

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