



ISSN 1725-3209 (online)  
ISSN 1725-3195 (printed)

# EUROPEAN ECONOMY

Occasional Papers 177 | March 2014

## Macroeconomic Imbalances Finland 2014



Economic and  
Financial Affairs

**Occasional Papers** are written by the Staff of the Directorate-General for Economic and Financial Affairs, or by experts working in association with them. The Papers are intended to increase awareness of the technical work being done by staff and cover a wide spectrum of subjects. Views expressed in unofficial documents do not necessarily reflect the official views of the European Commission.

Comments and enquiries should be addressed to:

European Commission  
Directorate-General for Economic and Financial Affairs  
Unit Communication  
B-1049 Brussels  
Belgium  
E-mail: [ecfin-info@ec.europa.eu](mailto:ecfin-info@ec.europa.eu)

## LEGAL NOTICE

Neither the European Commission nor any person acting on its behalf may be held responsible for the use which may be made of the information contained in this publication, or for any errors which, despite careful preparation and checking, may appear.

This paper exists in English only and can be downloaded from [http://ec.europa.eu/economy\\_finance/publications/](http://ec.europa.eu/economy_finance/publications/).

More information on the European Union is available on <http://europa.eu>.

KC-AH-14-177-EN-N  
ISBN 978-92-79-35361-1  
doi: 10.2765/73559 (online)

KC-AH-14-177-EN-C  
ISBN 978-92-79-36136-4  
doi: 10.2765/79847 (print)

© European Union, 2014

Reproduction is authorised provided the source is acknowledged.

European Commission

Directorate-General for Economic and Financial Affairs

# **Macroeconomic Imbalances**

Finland 2014

## ACKNOWLEDGEMENTS

This report was prepared in the Directorate General for Economic and Financial Affairs under the direction of Servaas Deroose, deputy director-general, István Pál Székely and Anne Bucher, directors.

The main contributors were István Pál Székely, Laura Bardone, Michael Stierle, Dan Matei and Peeter Soidla. Other contributors were Jonas Fischer, Rafal Raciborski and Magdalena Spooner. Statistical assistance was provided by Jan Kattevilder, Paolo Covelli and Laura Fernandez Vilaseca.

Comments on the report would be gratefully received and should be sent, by mail or e-mail to:

Michael Stierle  
European Commission  
DG ECFIN, Unit H3  
B-1049 Brussels  
e-mail: [michael.stierle@ec.europa.eu](mailto:michael.stierle@ec.europa.eu)

The cut-off date for this report was 25 February 2014.

## **Results of in-depth reviews under Regulation (EU) No 1176/2011 on the prevention and correction of macroeconomic imbalances**

**Finland** continues to experience *macroeconomic imbalances, which require monitoring and policy action*. In particular, the weak export performance during the last years, driven by industrial restructuring, cost and non-cost competitiveness factors, deserve continued attention.

More specifically, high import growth prior to the crisis and subdued exports afterwards explained the erosion in external balance. However, the current account has stabilised recently and external sustainability is not a concern. The country continued to lose export market shares at a fast pace, despite the recovery in world trade. Finland's integration into global value chains has played a role in the declining performance of exports, while the industrial restructuring has not yet been able to make up for the large downsizing of the electronics and forestry industries. In turn, the adjustment capacity of the economy is constrained by low productivity and weak competitive pressures in services as well as increasing costs due to dynamic wage growth and a high energy-intensity. Exporters have thus been able to sustain price competitiveness mainly by compressing profit margins, which have limited their capacity to translate the high innovation potential into new products. Non-cost factors appear to explain most of the deterioration in competitiveness: a limited number of large exporting firms selling a narrow product range, a lower propensity of small companies to export as well as less efficient R&D spending. In turn, weak investment, a declining working age population and a significant drop in productivity weigh on potential growth. As regards public finances, the structural deficit is expected to be slightly above its medium-term objective in 2014 while, partly due to the unfavourable growth dynamics, the public debt is projected to increase to above 60 per cent of GDP.

*Excerpt of country-specific findings on Finland, COM(2014) 150 final, 5.3.2014*



Executive Summary and Conclusions	9
1. Introduction	11
2. Macroeconomic Developments	13
3. Imbalances and Risks	19
3.1. Current account balance	19
3.1.1. Main developments and savings-investment balances	19
3.1.2. Net international investment position and cross-border financial linkages	25
3.2. Trade performance and Finland's integration into the global value chain	26
3.3. Price and cost competitiveness	32
3.3.1. Nominal and real effective exchange rate	32
3.3.2. Labour costs	34
3.3.3. Other cost components and profit margins	40
3.4. Non-price competitiveness	44
4. Policy Challenges	51
References	53

## LIST OF TABLES

2.1. Key economic, financial and social indicators	17
--	----

## LIST OF GRAPHS

2.1. Labour market	14
2.2. Dispersion of regional unemployment rates, selected countries	14
2.3. Low-skilled to high-skilled unemployment gap, selected countries	15
2.4. Part-time employment in total employment, selected countries	15
3.1. Decomposition of external position (current and capital accounts)	19
3.2. Average annual growth of domestic demand, exports and imports of goods	21
3.3. Terms of trade, selected countries	21
3.4. Terms of trade, selected products	21
3.5. EMS in selected countries (index)	21
3.6. Contribution to EMS growth	22
3.7. Energy trade balance, selected countries	22

3.8.	Current Account financing	23
3.9.	Decomposition of change in current account balance (2007-12)	23
3.10.	Net Lending/Borrowing by Sector	23
3.11.	Savings and investment by sector	24
3.12.	Gross capital formation by type	24
3.13.	Investment excl. construction, selected countries	24
3.14.	Decomposition of NIIP	25
3.15.	Decomposition of rate of change of NIIP	25
3.16.	NIIP by sector	26
3.17.	Geographical and sectoral composition of nominal rate of change of goods exports	27
3.18.	Destinations of exports of goods (2011), selected countries	27
3.19.	Composition of goods exports (current prices)	27
3.20.	Shares in exports and imports of goods in the BRICs	28
3.21.	Share of high-tech exports, selected countries	28
3.22.	Low-tech exports, selected countries (index)	28
3.23.	High tech exports by industry	28
3.24.	Non-ICT exports in values, selected countries (index)	28
3.25.	Services exports in values, selected countries (index)	29
3.26.	Turnover in manufacturing for outward foreign affiliates, selected countries	30
3.27.	Turnover in paper and electronics (in domestic and outward foreign affiliates)	30
3.28.	NEER in selected countries (index)	32
3.29.	Real effective exchange rate in Finland (index)	33
3.30.	ULC and export price based REER, selected countries (index)	33
3.31.	Change in REER: tasks vs goods (cumulative % change 2000-2011)	34
3.32.	Unit labour costs, selected countries (index)	35
3.33.	Average ULC, real wages and productivity, selected countries	35
3.34.	ULC by sector (index)	36
3.35.	Price index of Gross value added in tradables, selected countries	36
3.36.	Price levels of final consumption of households (2012, EU27=100), selected countries	36
3.37.	Share of low-wage earners, selected countries	38
3.38.	Gross value added in manufacturing (index)	38
3.39.	Gross value added in electronics (index)	38
3.40.	Labour costs to value added ratio, selected countries (index)	39
3.41.	Labour cost index in manufacturing, selected countries	40
3.42.	Manufacturing cost structure, % of output value (basis prices, 2010)	40
3.43.	Intermediate consumption deflators in manufacturing, selected countries (index)	42
3.44.	Output deflators in manufacturing, selected countries (index)	42
3.45.	Profit margins, non-financial corporations (% of value added)	42
3.46.	Gross operating surplus, selected countries	43
3.47.	Gross operating surplus in main sectors	43
3.48.	Return on assets (medians solid line, quartiles dotted)	44
3.49.	Return on assets by sector (medians)	44

3.50. Trade balance decomposition	44
3.51. Global Competitiveness Index	45
3.52. Allocated efficiency (AE) by sectors	45
3.53. Concentration and diversification (2011)	45
3.54. Export distribution by firm size class (2011), selected countries	46
3.55. Net investment rate by sector	47
3.56. Net investment rate (medians solid line, quartiles dotted)	47
3.57. Outward FDI by sector, stocks	47
3.58. Inward FDI by sector, stocks	48
3.59. Growth in triadic patents over 1999-2010, selected countries	49

## LIST OF BOXES

3.1. Potential growth and total factor productivity in Finland	20
3.2. Finland in the global value chains (GVC)	31
3.3. Determinants of exports in Finland	34
3.4. ULC decomposition into cost and price components	37
3.5. The new labour market agreement in Finland	39
3.6. Energy costs in Finland	41
3.7. Government support for business development and R&D in Finland	48



## EXECUTIVE SUMMARY AND CONCLUSIONS

In April 2013, the Commission concluded that Finland was experiencing macroeconomic imbalances, in particular as regards developments related to competitiveness. In the Alert Mechanism Report (AMR) published on 13 November 2013, the Commission found it useful, also taking into account the identification of an imbalance in April, to examine further the persistence of imbalances or their unwinding. To this end this In-Depth Review (IDR) provides an economic analysis of Finland's economy in line with the scope of the surveillance under the Macroeconomic Imbalance Procedure (MIP). The main observations and findings from this analysis are:

- **Finland's medium-term outlook remains subdued.** The continuous deterioration of exports weighs on the recovery while a weak investment activity, a declining working age population and a significant drop in productivity limit potential growth. These developments also weigh on public debt dynamics, despite fiscal adjustment measures taken. On the positive side, financial markets confidence in the economy remains unshaken and funding costs low.
- **As the process of industrial restructuring has not yet made up for the substantial downsizing of the electronics and forestry industries, the erosion of Finland's external position appears structural.** High import growth prior to the crisis and subdued exports afterwards explain the erosion in Finland's external balance. While Finland still ranks in the top league of international competitiveness rankings, exports are still around one fifth lower than in 2008, despite the recovery in world trade, and the country continues to lose export market shares at a fast pace. These developments demonstrate Finland's difficulty so far to respond to the structural shocks in its tradable sectors.
- **Finland's integration into global value chains has also played a role in the declining performance of exports, while the economy would be well placed to reap the benefits of integration.** To gain access to worldwide markets and achieve efficiency gains, Finnish multinationals have favoured outward FDI over exports, partly replacing domestic investment by investment abroad. This implies high adjustment costs, but the benefits of integration into global value chains are seen in the dynamics of the domestic value-added content of exports. A skilled workforce, significant research and development expenditure and effective active labour market policies can help minimise the costs of adjustment and reap the benefits of this inevitable process.
- **The capacity of the economy to reorient itself is constrained by increasing costs, which have depressed profitability and investment.** In recent years, Finnish exporters have been able to sustain price competitiveness mainly by compressing profit margins. While competition on global markets determines prices, domestic costs have increased due to dynamic wage growth and a high energy-intensity. The worsening profitability failed to rebound after the crisis, limiting the capacity and incentives to translate the high innovation potential into new marketable products.
- **The deterioration in competitiveness is mainly due to non-cost factors.** Geographic and product mix factors cannot fully explain the swift loss in export market shares. A limited number of large exporting firms selling a narrow product range as well as the lower propensity of Finnish small companies to export weigh on trade performance. The decline of the Finnish ICT sector raises concerns about the future path of R&D investment and total factor productivity. The limited allocative efficiency in non-tradable sectors and less efficient R&D spending are also among the underlying drivers. Cost factors play a role as well, given Finland's specialisation shift from high-tech to more price-sensitive intermediate products.
- **The dynamics of household debt remains a source for concern, although deleveraging needs seem not pressing.** Household indebtedness expanded steadily over the past decade; however it remains far below unsustainable levels observed in other European countries. Housing cost overburden rates for households are still rather low, but developments in the mortgage market deserve close attention.

The IDR also discusses the policy challenges stemming from these developments and what could be possible avenues for the way forward. A number of elements can be considered:

- **The labour market adjustment capacity to absorb shocks could be enhanced.** Further efforts are envisaged to achieve productivity gains in public service provision to facilitate reallocation of workers to more productive sectors. To counter the decline in the working age population due to ageing, the activation of young people, the long-term unemployed and older workers, as well as an increase of the effective retirement age and encouraging part-time employment, are needed. Following the wage agreement reached by social partners providing significant wage moderation for at least 2014-15, social partners could pursue efforts to take sectoral and local productivity growth into account in wage agreements and effectively curb labour cost growth.
- **Deregulation and a more level playing field would help prevent a further worsening in competitiveness.** Measures aimed at enhancing competition and deregulation, especially in less internationally exposed service sectors, could put a lid on price increases including for intermediate inputs, improve productivity and soften the impact of the on-going restructuring in traditional industries.
- **A further focus on energy efficiency would have a positive impact on Finland's cost competitiveness and trade balance.** Measures aimed at enhancing energy efficiency improve the competitive position of the industrial sector by lowering the cost of inputs.
- **The export potential could be boosted by providing tailored support for the internationalisation of smaller firms and leveraging the country's high R&D intensity.** Efforts need to be reinforced in particular on further supporting the clusters between multinationals and domestic innovative companies. Given the large number of government agencies and available schemes involved in funding business development, a review of their effectiveness would be useful. Finland's high R&D intensity could be more effectively translated into the development of new products and creating high-productive jobs, while government funding for R&D could be targeted on enhancing R&D spillovers.

# 1. INTRODUCTION

On 13 November 2013, the European Commission presented its second Alert Mechanism Report (AMR), prepared in accordance with Article 3 of Regulation (EU) No. 1176/2011 on the prevention and correction of macroeconomic imbalances. The AMR serves as an initial screening device helping to identify Member States that warrant further in depth analysis to determine whether imbalances exist or risk emerging. According to Article 5 of Regulation No. 1176/2011, these country-specific “in-depth reviews” (IDR) should examine the nature, origin and severity of macroeconomic developments in the Member State concerned, which constitute, or could lead to, imbalances. On the basis of this analysis, the Commission will establish whether it considers that an imbalance exists in the sense of the legislation and what type of follow-up it will recommend to the Council.

This is the third IDR for Finland. The previous IDR was published on April 10, 2013 on the basis of which the Commission concluded that Finland was experiencing macroeconomic imbalances, in particular as regards developments related to competitiveness. Overall, in the AMR the Commission found it useful, also taking into account the identification of an imbalance in May, to examine further the persistence of imbalances or their unwinding. To this end this IDR takes a broad view of the Finland's economy in line with the scope of the surveillance under the Macroeconomic Imbalance Procedure (MIP).

Against this background, first section 2 provides an overview over macroeconomic developments while section 3 looks more in detail into the main imbalances and risks. Section 4 discusses policy considerations.



## 2. MACROECONOMIC DEVELOPMENTS

### A hesitant recovery

**The Finnish economy is still struggling to overcome the crisis, as the recent recovery has proven fairly muted.** Following an initial recovery in 2010–11, the economy faced a recession before returning to tepid growth in the second quarter of 2013. Stagnant private consumption, subdued confidence and declining investment as well as lower-than-expected export growth hampered a more vigorous recovery through end-2013. Output remains below pre-crisis levels, with an estimated output gap of -2.4% of GDP in 2013.

**The continuous deterioration of exports weighs on the recovery.** The sharp contraction of its traditional industries (i.e. electronics and paper industries) contributes to Finland's weak export performance. In addition, the composition of Finnish exports, dominated by investment and intermediate goods, exposes exports to the most cyclical components of global demand. A review of price-cost competitiveness shows that increasing labour costs and declining export prices also help explaining these developments. Exports are still around one fifth lower than their pre-crisis level and they remained weak throughout 2013 with high frequency indicators suggesting that this overall muted performance is not set to reverse.

**Private consumption, the main driver of growth since 2010, has lost steam due to faltering income growth.** In contrast to the previous years, no positive growth contribution is expected from consumption in 2013. In the beginning of 2013, the VAT rate was increased by 1 pp. and income taxation was also increased. Declining employment, lower wage growth prospects and rising taxes are weighing on consumer confidence. The impact on consumption was offset only in part by a decline in the household saving rate. Consumers have become cautious, delaying the purchase of durable goods. This is most apparent in car sales, which were exceptionally low in 2013. While household credit continued to expand, pushing household debt to 106% of disposable income, it did little to support aggregate demand. Going forward, private consumption is expected to resume growth but at a slower pace than prior to the crisis.

**As elsewhere in Europe, investment also stalled because of low business confidence related to the weak outlook.** Gross fixed capital formation declined in 2012 and is estimated to have weakened further in 2013. The decline cuts across all sectors –construction as well as machinery and equipment while investments excluding construction are low compared to peer countries. This casts a shadow also on future potential growth.

**After considerable stickiness, inflation has declined throughout 2013, in response to the slack in the economy and declining energy prices.** Wage inertia as well as increasing energy prices combined with high energy intensity of the economy kept inflation at higher levels in Finland than in other euro-area countries. Despite the 2013 hike in consumption taxes and further tax increases in 2014, HICP inflation receded to 2.2% in 2013 and is set to further drop over 2014-15. In 2013 this development was largely due to declining energy prices, while over 2014-15 a persistently negative output gap and lower wage increases are expected to further dampen inflation.

**After a steady deterioration, the current account is stabilising.** A review of the current account components in section 3 indicates that several structural factors appear to have played a significant role in the continued weakening of Finland's external position between 2002 and 2011. The current account balance is estimated to have further stabilized in 2013 (-0.2% of GDP), as a slowdown in import volume growth is expected to have more than offset a softening in export dynamics. As consumption and investment are expected to remain weak, the trade account is forecast to be close to balance in 2015.

**Output and labour market trends weigh on fiscal developments, despite the significant adjustment measures.** Low growth in 2013 is reflected through the operation of automatic stabilizers in an estimated weakening of the general government balance by 0.6 pp., to -2.4% of GDP. The budget deficit is set to widen marginally in 2014, largely due to a shortfall in revenues amid weak growth outlook. Based on these developments, the general government debt is expected to reach 60.4% of GDP in 2014 and the

muted growth outlook could make it more difficult to reverse debt dynamics in the medium run.

### Labour market rather resilient since the onset of the crisis

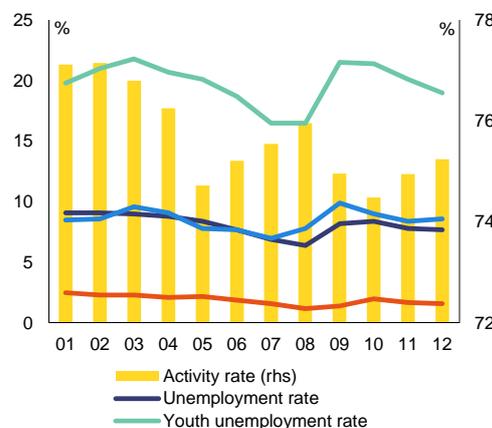
The Finnish labour market has performed relatively well during the crisis amid the ongoing restructuring of the economy (Graph 2.1). The (seasonally adjusted) unemployment rate stood at 8.1% in June 2013, below the EU average of 11%, but somewhat above Sweden and Denmark. Over the period 2008-12, the unemployment rate increased in Finland by only 1.3 pps., i.e. among the smallest increases in the EU, while the employment rate was the 7<sup>th</sup> highest in the EU (2012). Similarly, the shares of young and long-term unemployed in total unemployment have increased moderately relatively to pre-crisis levels. <sup>(1)</sup> Looking at the relationship between unemployment and vacancies, Finland appears to be moving along the same Beveridge curve<sup>(2)</sup> as before the crisis, suggesting stable underlying labour market matching dynamics. On employment protection legislation, the indicator regarding the strictness of rules regulating hiring and firing in Finland appears to be in line with peer countries in the region.<sup>(3)</sup>

<sup>(1)</sup> According to the Ministry of Employment and the Economy, the growing level of unemployment in Finland is mainly due to a lengthening of unemployment spells rather than higher inflows. However, Finland, along with Sweden and Denmark are also the countries with the lowest average duration of unemployment in the EU, supported by relatively high and increasing amounts spent for active labour market policies.

<sup>(2)</sup> The Beveridge curve is the graphical representation of the relationship between unemployment and the job vacancy rate (the number of unfilled jobs expressed as a proportion of the labour force). It has vacancies on the vertical axis and unemployment on the horizontal, and slopes downwards, as a higher rate of unemployment normally occurs with a lower rate of vacancies (For a detailed description of the analysis and its methodology, see the report 'Labour Market Developments in Europe 2013'.)

<sup>(3)</sup> Although regulation on collective dismissals is loose and there are no severance payments in Finland, the protection against individual dismissal of permanent workers exceeds the OECD average (the indicator is close to France and Sweden but significantly above Denmark). Further taking into account fixed term contracts (with a high incidence in Finland) and temporary agency work, regulation is at OECD average. (OECD, 2013)

Graph 2.1: Labour market

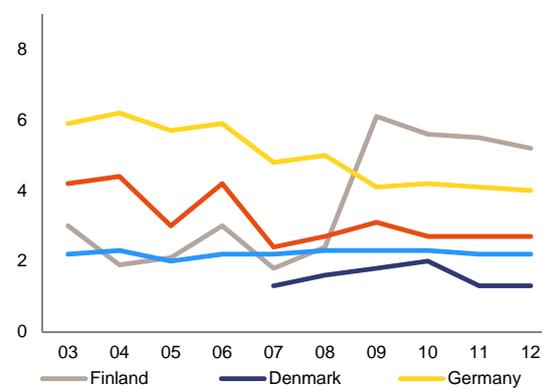


Source: Commission services

### However, a more in-depth look at the Finnish labour market reveals some weaknesses.

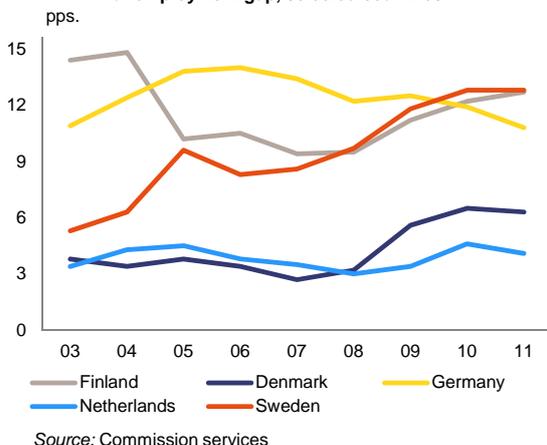
Dispersion of regional unemployment rates in Finland increased markedly during the crisis and reached the highest level among the peer countries (Graph 2.2). Similarly, the unemployment among low-skilled workers increased, bringing the difference between unemployment of low and high-skilled among the highest in the region, whereas part-time employment stayed at significantly lower levels (Graphs 2.3-2.4). These developments suggest that the adjustment capacity of the Finnish labour market in response to the ongoing restructuring in traditional industries may be rather limited.

Graph 2.2: Dispersion of regional unemployment rates, selected countries

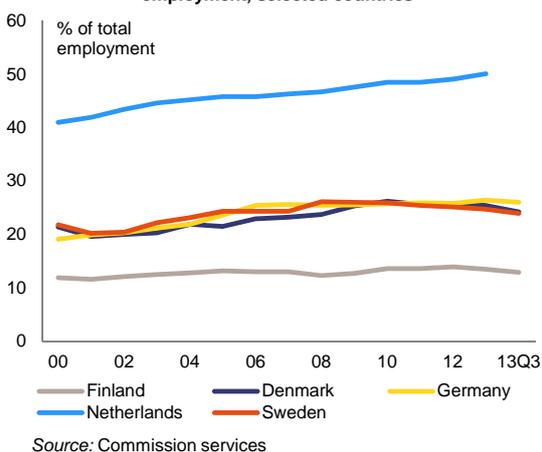


Source: Commission services, LAF database

Graph 2.3: Low-skilled to high-skilled unemployment gap, selected countries



Graph 2.4: Part-time employment in total employment, selected countries



### Population is ageing faster than in other EU Member States, impacting labour supply.

Currently, labour market shortages are mainly found in public sector occupations such as health care professionals, social workers, special teachers etc. Entrepreneurs face shortages as well, but there are no shortages reported for occupations in the industrial sector.<sup>(4)</sup> However, companies are expected to experience labour shortages in the near future, as the working age population is forecast to start declining as of 2013 due to population ageing. In turn, this could affect wage developments and productivity levels.

<sup>(4)</sup> Ministry of Employment and the Economy in Finland based on Occupation Barometer III/2013 which monitors the labour market balance for over 200 occupations.

### Growth prospects remain muted

#### Growth is not expected to resume before 2015.

The economy is estimated to have contracted by 1.5% in 2013 followed by a weak recovery of 0.2% in 2014, before rebounding to 1.3% in 2015. This assumes that net exports will profit from a gradual recovery of the global economy and investment will pick up as the uncertainty further recedes, while exports are set to continue to be influenced by the restructuring of export-oriented industries. Both persistent unemployment and lower increases in wages will weigh on private consumption. On the positive side, credit conditions remain supportive and demand is not restricted by deleveraging, making it more apt to respond favourably to an improvement in confidence.

**The main risks lie in a weaker-than-expected external environment as well as domestic policy uncertainty and the ongoing industrial restructuring.** Risks to the outlook are balanced and are mainly connected with the external environment and the future fiscal policy choices. Industrial restructuring could also be in a more advanced phase than currently considered and can result in faster than anticipated growth, also thanks to the social partners' agreement on moderate wage growth. Conversely, export share losses could be stronger than expected as Finland's traditional industries face structural challenges and competitive pressures.

### Deleveraging in the private sector seems not pressing

#### After a slight decline in 2011, private sector indebtedness has reached a new peak of 158% of GDP in 2012, but risks appear limited.

Non-financial corporations account for almost two-thirds of private debt, the remainder being held by households. Given that companies are currently net lenders to the rest of the economy, access to financing remains good and on an aggregate level deleveraging seems not pressing at the moment. As highlighted in the previous IDR, the increase in non-financial corporation debt potentially reflects an increased appetite for loans linked to the historically-low level of interest rates as well as cross-border intercompany loans and multinational companies concentrating part of their debt in Finland. Financial markets' confidence in the

Finnish economy remains unshaken so far and funding costs have remained low for borrowers.

**While household indebtedness remains below the unsustainable levels observed in some other EU countries at the onset of the crisis, it has grown steadily since 2001.** Household debt grew steadily from 62% of disposable income in 2001 to 106% in 2012, just below the EU average. Given the factors limiting housing supply like sluggish construction activity and a relative shortage of land, rising housing demand could exert overheating pressures on prices in the medium term and lead to further increases in household indebtedness. Furthermore, aggregate data on prices might hide regional differences, as prices increased most in the Helsinki area. However, also given a relatively low housing cost overburden rates for households, no sudden deleveraging is expected in the near future, but developments in the mortgage market deserve close attention, the more in light of a potential increase in mortgage rates. Measures to curb household debt growth would soften the risks related to the financial position of households.

Table 2.1:

Key economic, financial and social indicators - Finland	2007	2008	2009	2010	2011	2012	Forecast		
							2013	2014	2015
Real GDP (yoy)	5.3	0.3	-8.5	3.4	2.8	-1.0	-1.5	0.2	1.3
Private consumption (yoy)	3.5	1.9	-2.9	3.3	2.5	0.3	-1.0	-0.2	1.4
Public consumption (yoy)	1.1	1.9	1.1	-0.4	0.5	0.5	-0.8	-0.7	0.9
Gross fixed capital formation (yoy)	10.7	-0.6	-13.2	1.7	5.8	-0.8	-4.4	-1.0	1.7
Exports of goods and services (yoy)	8.2	5.8	-21.3	7.9	2.8	-0.2	-0.4	3.4	4.4
Imports of goods and services (yoy)	7.0	7.5	-17.2	6.8	6.2	-0.7	-1.5	2.0	4.4
Output gap	5.3	3.8	-5.7	-3.2	-1.1	-2.5	-4.0	-4.0	-3.2
Contribution to GDP growth:									
Domestic demand (yoy)	4.2	1.2	-4.1	2.0	2.6	0.1	-1.7	-0.5	1.3
Inventories (yoy)	0.3	-0.6	-1.9	0.8	1.5	-0.9	-0.2	0.2	-0.1
Net exports (yoy)	0.9	-0.4	-2.6	0.5	-1.3	0.2	0.4	0.5	0.0
Current account balance BoP (% of GDP)	4.3	2.6	1.8	1.5	-1.5	-1.7	.	.	.
Trade balance (% of GDP), BoP	5.3	4.0	2.0	1.6	-0.6	-0.8	.	.	.
Terms of trade of goods and services (yoy)	-0.2	-2.0	1.2	-2.1	-1.8	-1.2	2.1	0.6	0.0
Net international investment position (% of GDP)	-27.9	-2.7	6.7	21.4	19.7	18.4	.	.	.
Net external debt (% of GDP)	-2.1	6.5	18.6	22.0	26.5	36.5	.	.	.
Gross external debt (% of GDP)	121.1	131.9	165.3	189.6	216.1	231.3	.	.	.
Export performance vs. advanced countries (5 years % change)	.	.	.	.	.	.	.	.	.
Export market share, goods and services (%)	.	.	.	.	.	.	.	.	.
Savings rate of households (Net saving as percentage of net disposable income)	-0.9	-0.3	4.2	3.6	1.3	0.9	.	.	.
Private credit flow (consolidated, % of GDP)	13.1	16.4	0.1	7.1	4.1	9.0	.	.	.
Private sector debt, consolidated (% of GDP)	127.9	141.7	153.2	154.2	150.3	157.8	.	.	.
Deflated house price index (yoy)	3.5	-2.5	0.1	4.3	-0.4	-0.5	.	.	.
Residential investment (% of GDP)	6.9	6.3	5.7	6.6	6.9	6.8	.	.	.
Total Financial Sector Liabilities, non-consolidated (yoy)	10.5	16.4	6.5	18.9	30.2	-0.2	.	.	.
Tier 1 ratio (1)	.	13.2	13.4	13.5	14.7	14.8	.	.	.
Overall solvency ratio (2)	.	13.7	14.6	14.6	14.4	17.2	.	.	.
Gross total doubtful and non-performing loans (% of total debt instruments and total loans and advances) (2)	0.6	0.8	1.1	0.9	0.8	0.8	.	.	.
Employment, persons (yoy)	2.1	2.6	-2.6	-0.1	1.3	0.1	-0.6	0.0	0.3
Unemployment rate	6.9	6.4	8.2	8.4	7.8	7.7	8.2	8.3	8.1
Long-term unemployment rate (% of active population)	1.6	1.2	1.4	2.0	1.7	1.6	.	.	.
Youth unemployment rate (% of active population in the same age group)	16.5	16.5	21.5	21.4	20.1	19.0	19.9	.	.
Activity rate (15-64 years)	75.6	76.0	75.0	74.5	74.9	75.2	.	.	.
Young people not in employment, education or training (% of total population)	7.0	7.8	9.9	9.0	8.4	8.6	.	.	.
People at-risk poverty or social exclusion (% total population)	17.4	17.4	16.9	16.9	17.9	17.2	.	.	.
At-risk poverty rate (% of total population)	13.0	13.6	13.8	13.1	13.7	13.2	.	.	.
Severe material deprivation rate (% of total population)	3.6	3.5	2.8	2.8	3.2	2.9	.	.	.
Persons living in households with very low work intensity (% of total population)	8.8	7.5	8.4	9.3	10.0	9.3	.	.	.
GDP deflator (yoy)	3.0	2.9	1.5	0.3	2.7	2.9	2.9	2.2	2.0
Harmonised index of consumer prices (yoy)	1.6	3.9	1.6	1.7	3.3	3.2	2.2	1.7	1.6
Nominal compensation per employee (yoy)	3.7	4.4	2.3	1.8	3.2	3.5	2.4	1.6	1.6
Labour Productivity (real, person employed, yoy)	3.1	-2.2	-6.1	3.4	1.3	-1.1	.	.	.
Unit labour costs (whole economy, yoy)	0.5	6.7	9.0	-1.6	1.9	4.6	3.3	1.3	0.7
Real unit labour costs (yoy)	-2.4	3.7	7.4	-2.0	-0.8	1.6	0.4	-0.8	-1.3
REER (ULC, yoy)	-0.3	4.7	6.8	-5.0	0.8	-0.4	5.0	2.2	-0.7
REER (HICP, yoy)	0.2	1.5	3.1	-5.7	-0.1	-2.7	2.9	2.4	-0.6
General government balance (% of GDP)	5.3	4.4	-2.5	-2.5	-0.7	-1.8	-2.4	-2.5	-2.3
Structural budget balance (% of GDP)	2.5	2.4	0.6	-0.8	-0.1	-0.4	-0.3	-0.4	-0.6
General government gross debt (% of GDP)	35.2	33.9	43.5	48.7	49.2	53.6	57.2	60.4	62.0

(1) domestic banking groups and stand-alone banks.

(2) domestic banking groups and stand alone banks, foreign (EU and non-EU) controlled subsidiaries and foreign (EU and non-EU) controlled branches.

Source: Eurostat, ECB, AMECO.



### 3. IMBALANCES AND RISKS

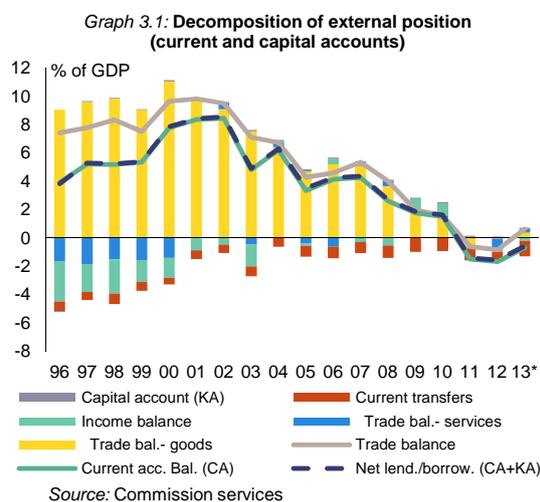
**Despite ranking in the top league of international competitiveness rankings, Finland has been losing export market shares at record speed since 2008.** Even though external sustainability is not a concern, the current account balance has turned from a large surplus into a limited deficit within only a few years. The section 3.2 takes a close look at export developments and explores the factors driving them. The loss of export market shares comes alongside a decline in potential output, in particular total factor productivity, suggesting that the two developments have common roots, related to the fact that industrial restructuring in Finland has not yet been able to make up for the large downsizing of the electronics and forestry industries. An analysis of the role of price/cost factors in the loss of competitiveness in section 3.3 reveals that Finnish exporters, facing increasing costs, have been able to sustain price competitiveness mainly by compressing profit margins, thus limiting their capacity to invest. At the same time, Finland's integration into global value chains – which is a positive feature - also plays a role in the declining performance of exports. Non-cost factors, discussed in section 3.4, take a front seat in explaining the deterioration in competitiveness: a limited number of large exporting firms selling a narrow product range and a lower propensity of small companies to export. In addition, the declining efficiency of research and development spending and slow investment, including low inward FDI, result in difficulties to translate the high innovation potential into new marketable products.

**The weakening of exports and a significant drop in potential growth indicate that both developments might be closely linked.** The lower potential growth in Finland is based on subdued developments in all contributing factors. Declining working age population due to population aging impacts labour input whereas low investment weighs on capital accumulation. Especially the decline of the ICT sector had a substantial impact on total factor productivity (see Box 1).

#### 3.1. CURRENT ACCOUNT BALANCE

##### 3.1.1. Main developments and savings-investment balances

**It is the steep downward trend of the current account balance rather than its level that raises concerns.** As highlighted in the previous IDRs, Finland's current account balance steadily eroded within a decade from a significant surplus of over 8% of GDP in 2002 into a deficit of -1.5% in 2011. This was due to a weakening in the trade balance of goods, which also moved into deficit as of 2011 (Graph 3.1). Since then, the current account deficit trended sideways and is expected to reach -0.2% of GDP in 2013. High import growth prior to 2008 and subdued exports since the onset of the crisis explain the stronger decline in merchandise trade in Finland than in similar advanced countries (Graph 3.2). The deterioration in the current account balance was also driven by worsening terms of trade as the increasing price of imported oil and raw materials, on which the economy is structurally dependent, affected the goods balance (Graph 3.3 and 3.4).



### Box 3.1: POTENTIAL GROWTH AND TOTAL FACTOR PRODUCTIVITY IN FINLAND

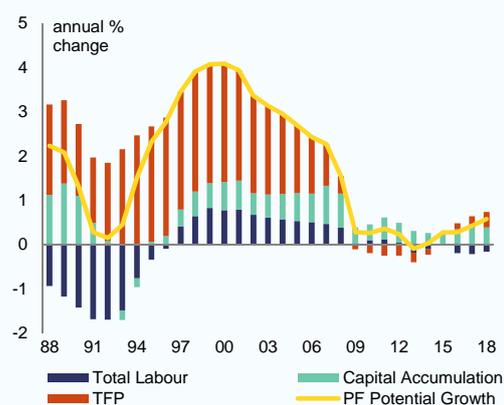
The average annual rate of potential growth in Finland is forecast at about 0.2% over 2013-16, lower than the euro-area average (0.7%) over the same period. This marks a significant slowdown from 3.0% p.a. average growth over 2001-07 and a permanent shift following the global crisis. The decline in total factor productivity (TFP) growth accounts for most of this drop (from 2.4% in 2001 to -0.3% in 2012) (Graph 1a). Over the longer term, while TFP growth is expected to mildly improve from the 2012 level, the decline in working age population due to population ageing will weigh on the contribution of labour to potential growth.

TFP growth in Finland excelled prior to the crisis. The average TFP growth rate was 2.5% annually over 1995-2007, considerably above the EU 15 average (1.1%) and comparable to or better than its peer countries (Swedish TFP growth rate averaged 2.2%). During the crisis most EU countries, including Finland, experienced sharp declines in their TFP growth rates, with the trough for many of them reached in 2009. For Finland, the trough was the deepest within the EU15 (-7.0%, while the Swedish TFP growth rate fell 'only' to -3.7%). Since then, Finland's TFP has only partly recovered, as its growth rate averaged a paltry 0.4% (compared with 1.2% in Sweden).

The sharp reduction in TFP growth during the crisis, combined with a very sluggish recovery, implied substantial losses in terms of trend TFP. Graph 1b shows the log-level TFP trend baseline projection, compared with a counterfactual in which the log-level trend after 2006 is assumed to grow at the growth rate of trend TFP in 2006 (1¼%). The chart shows that by 2022, the Finnish trend TFP is expected about 17% lower than what it could be, had its growth rate remained at its 2006 level. Trend TFP is thus not expected to make up for the losses accumulated during and immediately after the crisis.

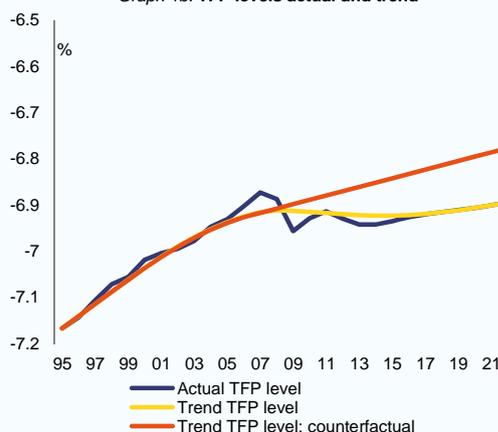
The recently observed level shift in the Finnish TFP growth rate may be largely explained by the troubles of its ICT sector. Given that historically the ICT sector's contribution to overall productivity growth was extraordinarily high (averaging 1.7 pps. over 1995-07, compared to only about 0.8 pp. in the US over the same period, OECD, 2012), the sudden drop in ICT's value added had a substantial impact on TFP performance in Finland.

Graph 1a: Contribution to potential growth

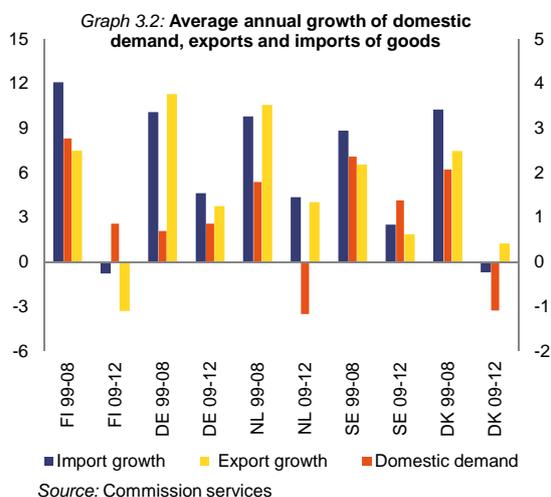


Source: Commission services

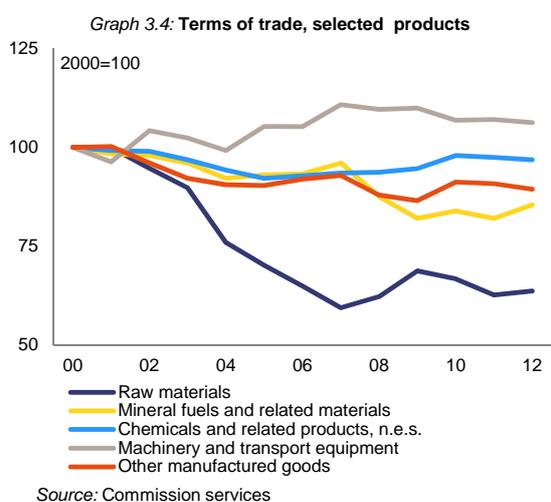
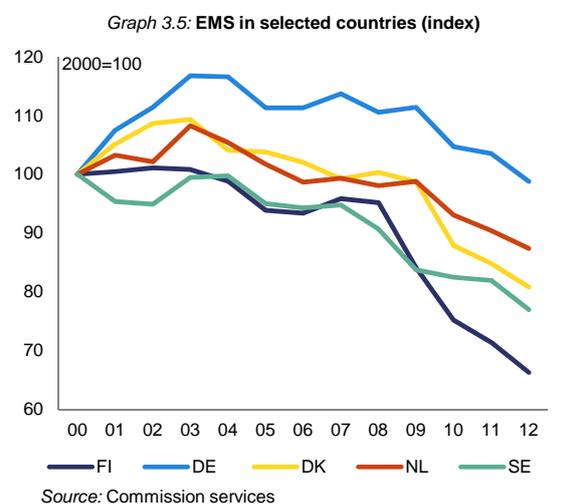
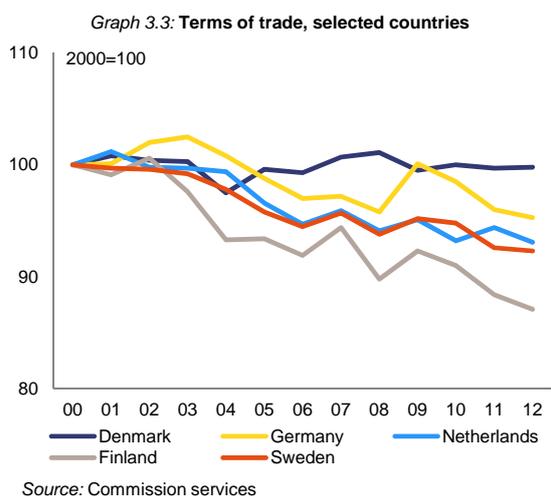
Graph 1b: TFP levels actual and trend



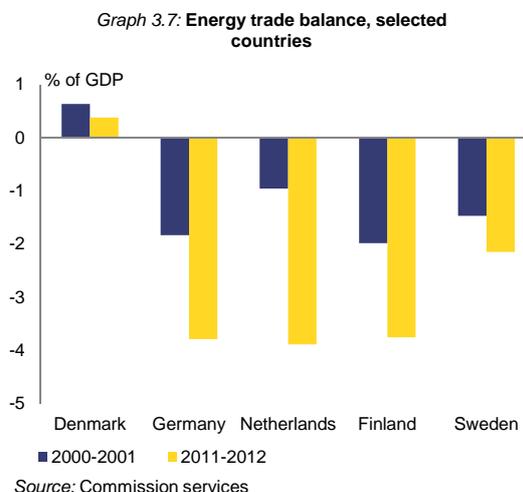
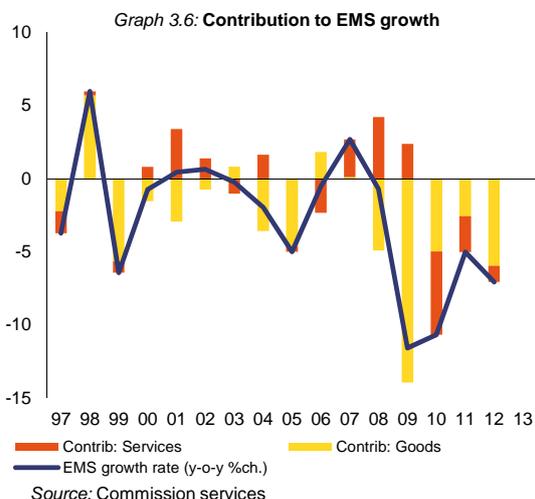
Source: Commission services



**Finland has continued to lose export market share not only globally but also relative to peers.** Trailing behind world trade growth is not exceptional among advanced countries following the increasing role of emerging economies and the changing structure of world trade.<sup>(5)</sup> However, Finland has been losing export market shares (EMS) at the fastest pace in the EU during the recent global downturn and, despite the recovery in world trade, exports relative to GDP are 8 pps. lower than in 2008. This trend remains mostly unchanged from last year's IDR and contrasts with developments in peer economies. Finland, Sweden and Denmark witnessed similar market share changes until 2008 (Graph 3.5), but the decline in Finland's EMS intensified afterwards. The large drop of EMS over 2009-10 have slightly weakened over 2011-12, but a reversal is still not estimated for 2013. Graph 3.6 depicts the strong negative contribution of goods to Finland's EMS particularly during the crisis, whereas services brought a brief positive contribution in 2007-08 followed by a small negative contribution over 2009-12.



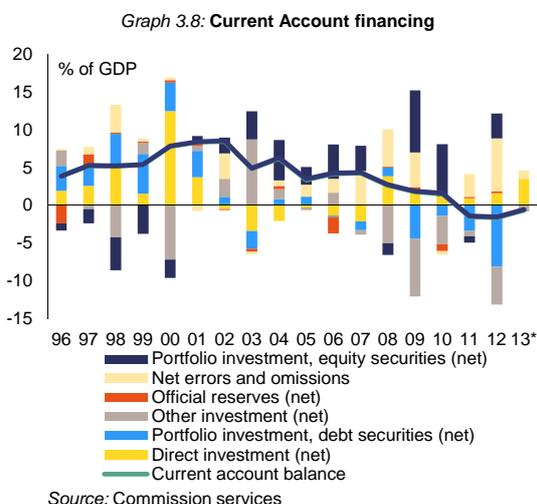
<sup>(5)</sup> Declining export market share appears to have been common to most advanced economies.



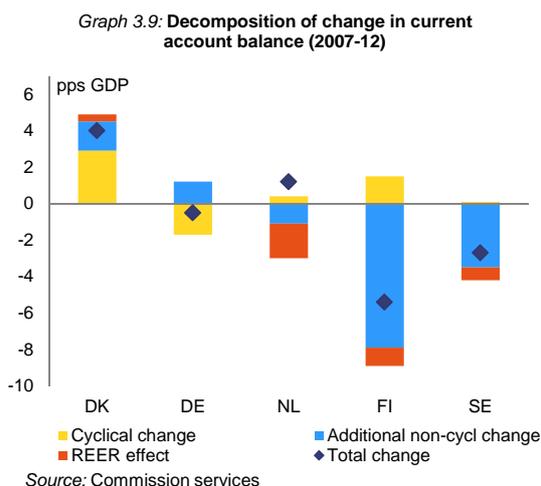
**The trade balance of goods seems to be driven by several structural factors.** Prior to the crisis, growing domestic demand translated into increasing imports.<sup>(6)</sup> Fast growth of imports in value terms can be explained not only by a more dynamic household consumption, but also by the energy import dependency on the back of rapidly rising energy prices and high energy intensity of the economy. The already large trade deficit in energy products expanded considerably from 1.9% in 2000 to 3.5% of GDP in 2012 (see Graph 3.7). While in other peer countries the increasing energy bill was offset by a higher trade surplus in other categories of goods, the Finnish trade balance in non-energy products gradually weakened (from 13.8% to 6.1% of GDP over 2000-12).

<sup>(6)</sup> Annual growth in Finland's domestic demand was the highest in the region until 2008 and remained relatively strong afterwards (see Graph 3.2).

**In contrast, balances for the trade of services, income and current transfers showed no major changes over the past decade.** Current transfers typically display a stable negative balance (around -0.9% of GDP), reflecting i.a. Finland's position as a net contributor to the EU budget (about ½% of GDP) and foreign aid to third countries. Unlike in other countries where the services trade surplus increased, mirroring a shift towards services-oriented economies, the Finnish services balance has remained slightly negative over the past decade. Since a positive net international investment position is a relatively recent development, net income flows increased somewhat over 2009-12 mainly reflecting low net returns. Finland relied to varying degrees on foreign direct investment, portfolio debt or equity, as well as unsecured inter-bank loans, as vehicles to invest its savings abroad (Graph 3.8). As in other Nordic countries, past surpluses, which are supported by significant surpluses of social security funds, were mainly invested through portfolio instruments.

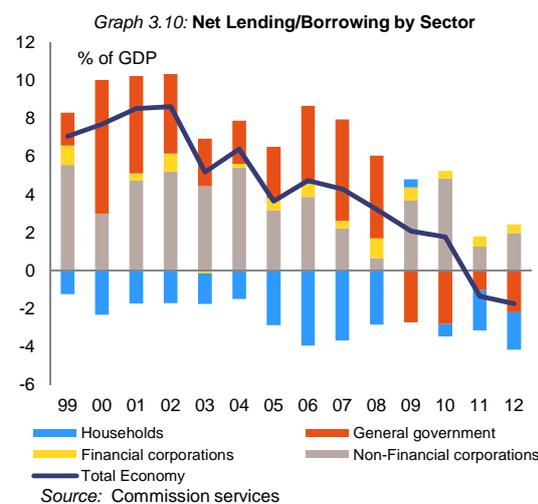


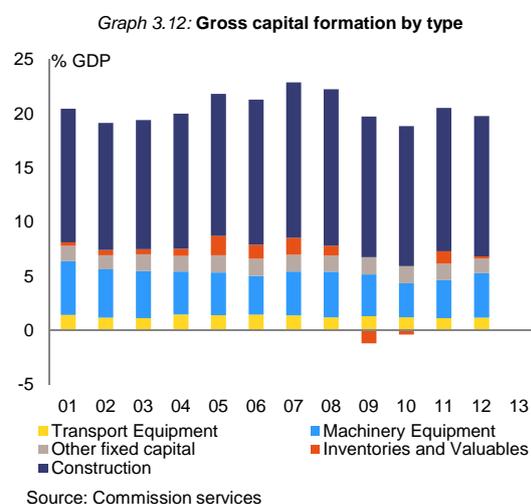
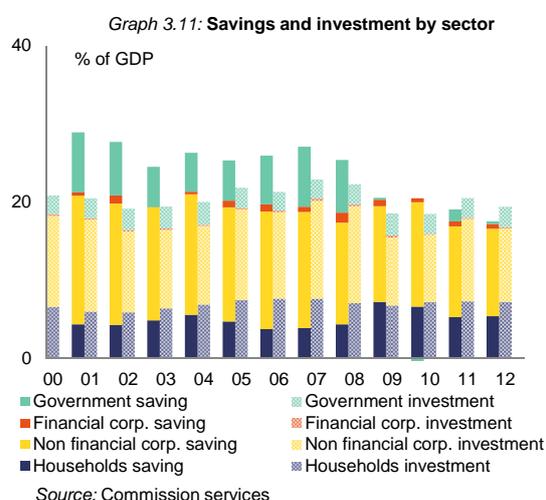
**The erosion of Finland’s external balance appears mainly structural.** After the strong decline over 2002-10, the current account has been stable since 2011. For 2014 and 2015, a small surplus of around 0.5% of GDP is expected according to the Commission forecast. Recent estimates on the cyclically-adjusted current account balance appear to confirm that most of the deterioration in the external balance is permanent, i.e. it would prevail if both the domestic and trading partner economies were at potential output (see Graph 3.9).



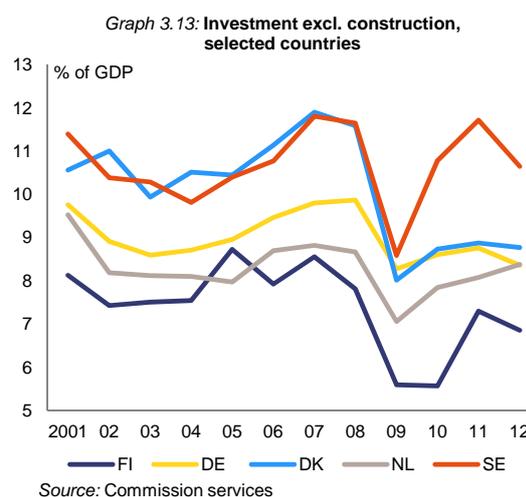
**The deterioration in the current account was mainly driven by a continuous fall in the national saving rate, while investment has remained broadly stable.** From a saving-investment perspective, both corporate and public

sectors were behind the accumulation of ample net savings until 2008. Since the crisis, most of the decline in savings (7.8 pps of GDP over 2008-12) stems from the cyclical drop in government saving, amid lower tax revenues and increased public spending linked to stimulus measures. Net borrowing by the government therefore reached 2.7% of GDP in 2009-10 and decreased only slightly afterwards (Graph 3.10). Households reinforced their net borrower position in particular by continuing housing investment. In turn, the financial sector consistently saved more than it invested, reflected in a net lending position throughout the past decade. Finally, non-financial corporates (NFC) have recorded sizeable saving surpluses, but the previous ample savings lost significant ground since the onset of the crisis (Graph 3.11) as Finnish NFCs experienced an exceptional swift decline in profitability, as discussed in section 3.4.





**In particular corporate investment net of construction is lower in Finland than in other peer countries.** A trend decline in the investment ratio seems to be a common feature across developed economies, linked to economic woes, production outsourcing and capital-saving biases in new technologies. The investment level in Finland (19.8% of GDP in 2012) is similar to the EU average, but a comparison with investment patterns in peer countries reveals that Finnish investment was driven by the construction sector. Once investment in construction is netted out, the investment rate is significantly lower than in neighbouring countries as well as than in the euro area and in the EU, particularly since 2008 (see Graphs 3.12-3.13). In particular, prior to the crisis, NFCs' investment has also been less dynamic than what could have been expected given their high profitability.

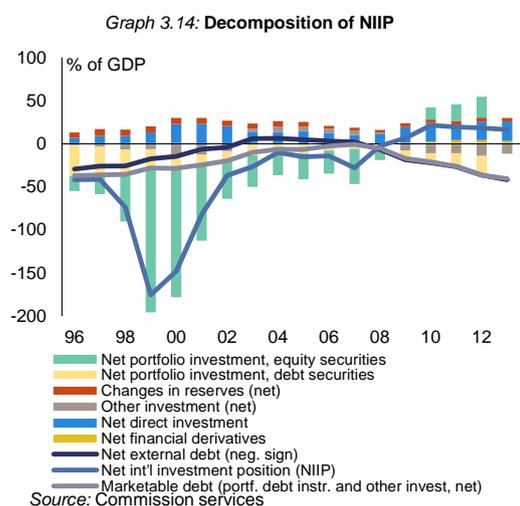


**No substantial changes in the sectoral net positions are expected in the medium term.** Given the muted recovery outlook, the operation of automatic stabilisers will uphold the negative saving position of the public sector. A low interest rate environment will continue to support growth in housing investment resulting in an increasing indebtedness of the household sector over the medium term and a declining ability to cover the future costs of ageing. With a low investment ratio, limiting growth prospects going forward, the corporate sector is envisaged to remain in a net lending position. This will offset by the combined net borrowing positions of the public sector and households. Persistent surpluses in the corporate sector would continue to underpin a broad stabilisation of the current account deficit. Conversely, a further improvement in the

economic outlook could entail a recovery in investment and an ensuing worsening of the current account balance if not accompanied by a corresponding increase in the saving rate.

### 3.1.2. Net international investment position and cross-border financial linkages

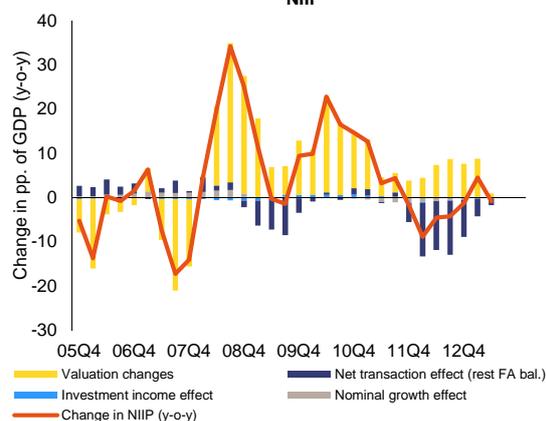
**External sustainability seems not to be a reason for concern.** As highlighted in the previous IDR, the net international investment position (NIIP) improved steadily from -27.9% of GDP in 2007 and peaked at a surplus of 21.4% of GDP by the end of 2010. More recently, the country's net position broadly trailed the current account balance and slightly declined to 18.4% of GDP in 2012 (Graph 3.14). Looking at its composition, the NIIP is supported by net outward FDI, portfolio investment and reserve assets (21.5% of GDP, 1.9% of GDP and 4.4% respectively in 2012), which more than offset the net negative position of other investments (-13.8% of GDP). In a regional perspective, Finland's NIIP is higher than the level in Sweden (-10.2% of GDP in 2012) but lower than in the Netherlands (46.8%), Germany (41.5%) or Denmark (37.8%).



**Valuation effects have shaped Finland's NIIP over the past decade.** The NIIP conceals large gross stocks of foreign assets and liabilities, which render the net position susceptible to large valuation changes. The large swings in NIIP since the euro adoption were mainly driven by negative valuation effects related to the rising market value of Finnish equities held by foreign investors as

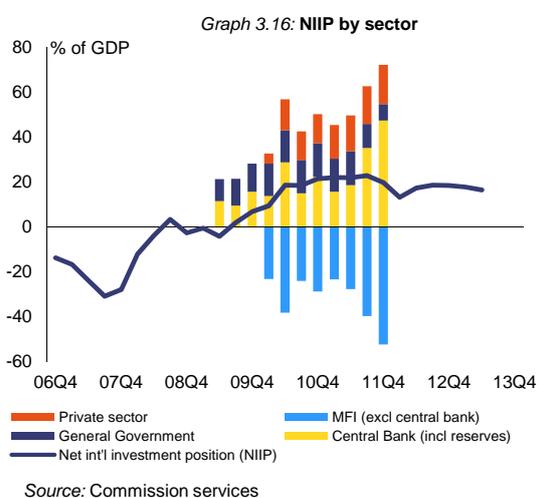
well as the appreciation of the euro over 2003-08 and their reversal since the crisis (Graph 3.15).

Graph 3.15: Decomposition of rate of change of NIIP



**The NFCs and households hold increasing stocks of net foreign assets albeit from low levels.** During the crisis, the non-banking private sector increased its net holdings of external assets, typically including outward FDI and inter-company lending (for a discussion of FDI see section 3.4). In a regional comparison, the net holdings of the Finnish non-banking private sector (17.4% of GDP in 2011) are in line with those in Sweden (14%), but markedly lower than in Germany (41%), Denmark (80%) or the Netherlands (112%).

**In contrast, the government's net foreign assets are on a decline.** Graph 3.16 shows that the public sector in Finland has remained a net external creditor, given the large, albeit declining, stock of foreign assets managed by the social security funds. Given the large size of the expected ageing-related costs, these reserves are expected to only partially meet the corresponding financing needs over the long term.



While the net positions of the financial institutions deteriorated significantly, they were matched by the increasing net creditor position of the Finnish central bank.<sup>(7)</sup> The sharp widening of the balance of portfolio debt securities and other investments since 2007<sup>(8)</sup> is reflected by the increase in net external liabilities of the banking sector (in the form of currency and deposits). As described in the previous IDR, deposits of banks mainly from Southern euro-area countries, increased substantially over 2011 in Northern Europe mostly reflecting safe-haven effects.

**A high degree of integration in the global financial markets implies challenges for financial sector supervision.** Both the stocks of domestic portfolio debt and equity owned by foreign investors and the gross holdings of foreign portfolio assets by residents (122.7% of GDP and 124.6% respectively in 2012) are high in Finland. This can be explained by the intense investment activity of residents as well as the relative attractiveness for foreign investors of Finnish corporate and government bonds, as safe investment instruments. Similarly, the high 'other investment' stocks, in particular inter-bank loans, reflect the importance of financial corporations in intermediating saving and investing. Given the large and concentrated banks operating in the

<sup>(7)</sup> This development is due to the rapid growth of intra-Eurosystem claims – TARGET2 (Trans-European Automated Real-time Gross settlement Express Transfer system).

<sup>(8)</sup> Correspondingly, the net external debt surged by 38.5 pps. to 36.4% of GDP in 2012.

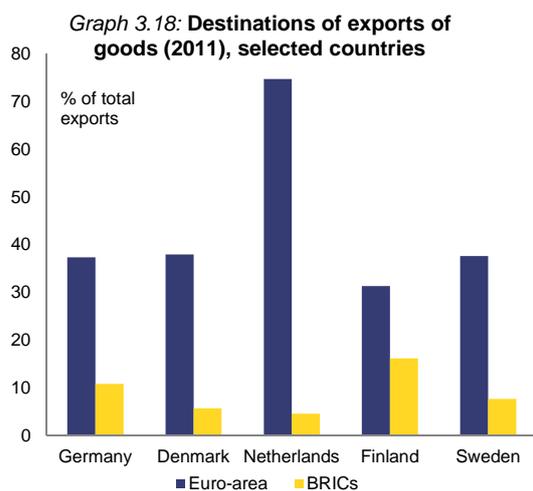
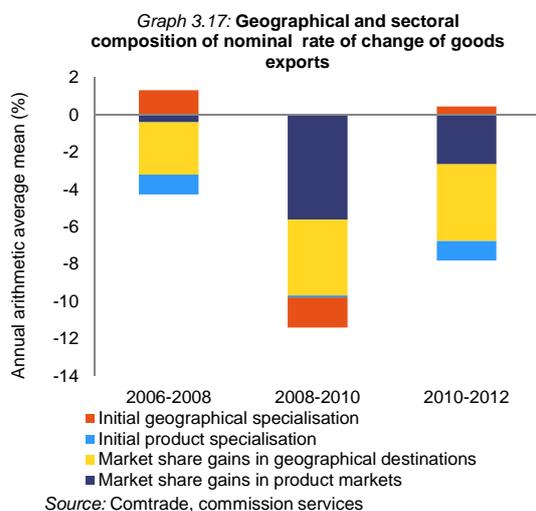
Nordic countries, indebted households and elevated housing prices, shocks can be transmitted rapidly across the region.<sup>(9)</sup> More generally, these uncertainties could weigh on the financial system and the whole economy.

### 3.2. TRADE PERFORMANCE AND FINLAND'S INTEGRATION INTO THE GLOBAL VALUE CHAIN

**Losses in competitiveness vis-à-vis Finland's trading partners, a narrow product range of exports and downsizing of production in traditional sectors have been key drivers of the country's poor export performance.** This section analyses the geographical and product composition of exports and the impact of outsourcing and downsizing in traditional industries as well as Finland's position in the global value chain.

**The Finnish exports have been supported by a favourable geographical orientation.** Before the crisis the destination market composition of Finnish exports was rather supportive to exports. In turn, in 2009 the halving of Finnish exports to Russia, one of the main trading partners, offset the previous positive destination market effect. Overall, exports have been directed relatively strongly towards the growing emerging markets and neighbouring economies, where import demand expanded faster than import demand globally (Graph 3.17). In fact, compared with its regional competitors, Finland's presence is the highest in the BRICs (Graph 3.18). Correspondingly, the country is the least dependent on euro-area for goods exports (about 30% of total exports), while roughly 40% of exports are directed towards other dynamic European destinations (out of which about a half to the Nordic countries).

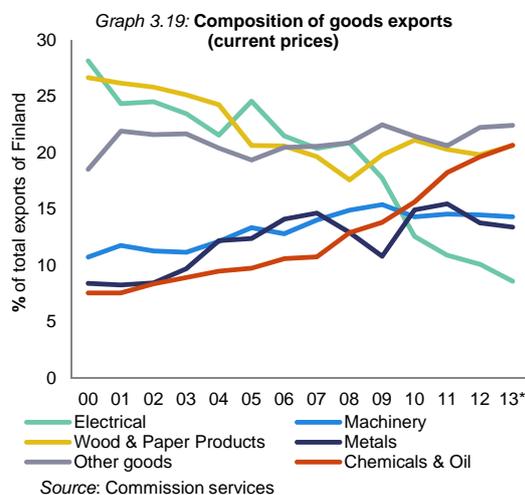
<sup>(9)</sup> As described in the previous IDR, the Nordic banks present in Finland are heavily reliant on wholesale funding, with bonds becoming an increasingly important source of financing.



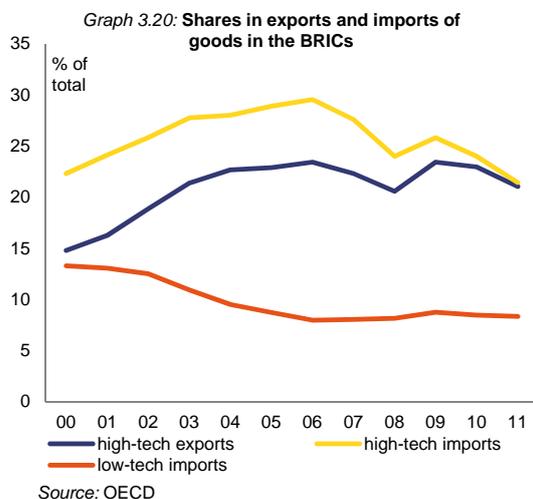
**However, Finland is rapidly losing market shares in the dynamic emerging markets.** Finland's relatively large presence in emerging markets could be explained by the product composition of its exports, which is concentrated in investment and intermediate products. A constant share of exports to BRICs implies that Finland is also losing EMS fast in these dynamic markets while the export shares of peer countries to BRICs are steadily increasing. Increasing outsourcing of production in traditional sectors reflected in expanding outward FDI in the same sectors might lie behind these developments.

**The Finnish goods exports are concentrated in cyclical products, but the cyclical impact on market share losses has been limited.** The product composition of Finnish exports, with its

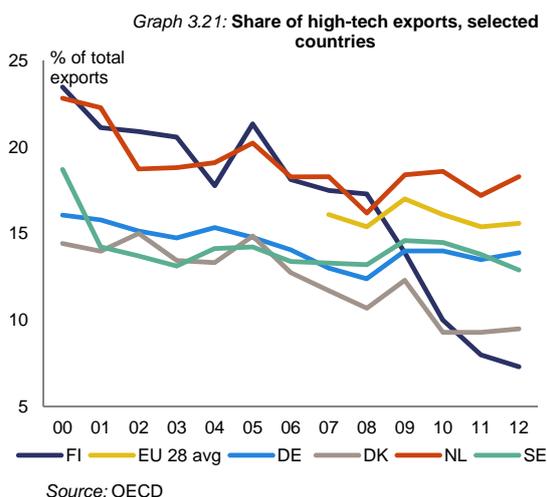
bias towards high-tech goods, helped the country meet the brisk foreign demand prior to the crisis.<sup>(10)</sup> Finland's main export goods are concentrated in machinery and electrical products, wood and paper products, metals and chemicals, with about 30% being classified as capital goods (Graph 3.19). At a global level, demand for such goods was robust during economic upswings and correspondingly weak through downturns, as these products are largely capital goods (and also high income elasticity products). In contrast, the demand for low tech products remained slower than world trade growth throughout the last decade (see the low-tech imports of BRICs in Graph 3.20). However, while the structure of goods exports contributed to Finland's declining EMS during the recent downturn, the declining EMS cannot be explained by this factor alone. When compared with its main competitors, Finnish high- and medium-tech goods lost significantly more ground after 2008 (Graph 3.21). The relative performance of Finnish low-tech exports also appears less favourable (Graph 3.22).



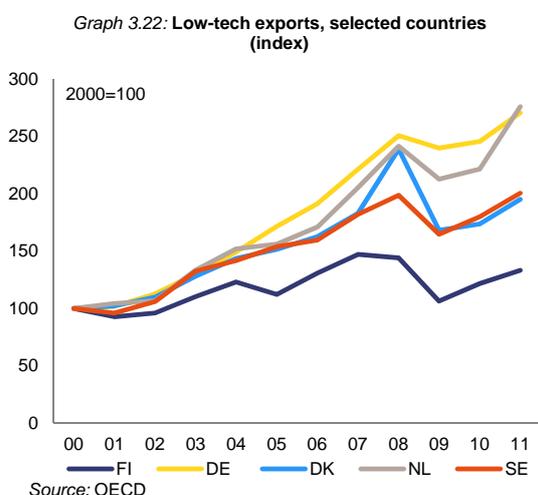
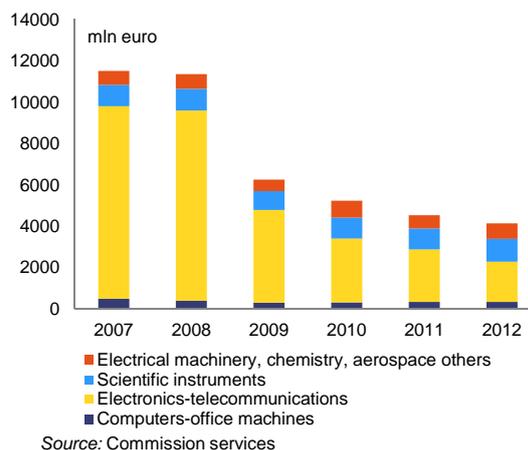
<sup>(10)</sup> See the high-tech imports of BRICs until 2006-07 in Graph 3.24.



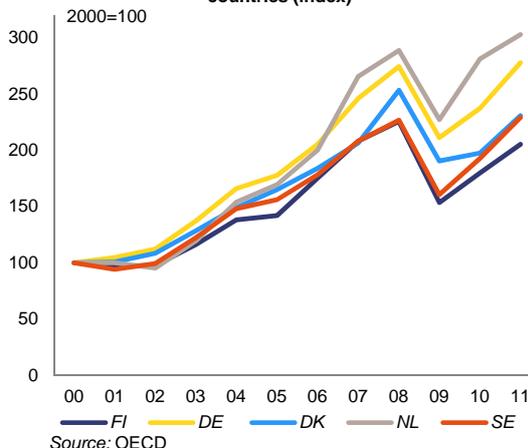
The collapse exports of the ICT sector largely explains the decline in high-tech <sup>(1)</sup> exports, but only partially the weakening performance of total exports (Graph 3.23). As highlighted in the previous IDR, the importance of the ICT cluster, dominated by Nokia, in Finland's value added steadily diminished during the past decade amid intensified global competition. Similarly, the share of exports of ICT products in total goods exports collapsed from 25% to 7% over 2000-11. However, even if the ICT-related exports are netted out from total goods exports in the sample countries, Finland's export performance remains the lowest in the region (Graph 3.24).



Graph 3.23: High tech exports by industry



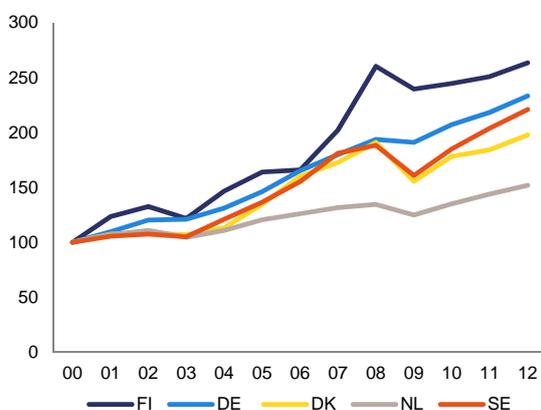
Graph 3.24: Non-ICT exports in values, selected countries (index)



<sup>(1)</sup> High technology products include Aerospace, Computers-office machines, Electronics-telecommunications, Pharmacy, Scientific instruments, Electrical machinery, Chemistry, Non-electrical machinery, Armament.

**Finnish service exports appear to have held up well through the downturn but the outlook is uncertain.** Services exports play an increasing role in Finland, with their value more than doubling in the last decade and reaching 11.4% of GDP in 2012<sup>(12)</sup>. Their destination is also fairly diverse as almost a third goes to Europe and a quarter to Asia. However services exports have grown more slowly in recent years than in competing economies (see Graph 3.25), reflecting the sluggish performance in exports 'of other services' which comprises high value added services such as IT, consulting, planning, marketing and expert services.<sup>(13)</sup> The concentration in terms of both industry and the type of service is high with IT accounting for one third of 'other services' and more generally the electronics industry for almost two thirds, making the country's exports vulnerable to shocks in these sectors. In addition, a major part of this trade is intra-group business services often linked to the exports of goods and pricing of services may thus not reflect the actual costs incurred.

Graph 3.25: Services exports in values, selected countries (index)



Source: Commission services

**Arguably, a more entrenched and widespread global recovery will not reverse the current trends in Finland's export performance.** At first sight, Finland's export specialisation in cyclically sensitive goods such as capital goods could help

<sup>(12)</sup> However, the services' trade balance was -0.8% of GDP in 2012.

<sup>(13)</sup> The turnover in IT services and consulting engineering increased throughout 2013 according to the technology industries confederation's recent report ([http://www.teknologiateollisuus.fi/file/17116/TT\\_SitOut\\_1\\_2014.pdf.html](http://www.teknologiateollisuus.fi/file/17116/TT_SitOut_1_2014.pdf.html)).

the country once again to boost its trade over the next global cycle. However, the competition from China and other emerging economies has already shifted from low-tech products to the higher value added production segments.<sup>(14)</sup> Graph 3.20 indicates that high-tech imports in the BRICs have been trending down since 2006-07 while BRIC's share of high-tech exports peaked in 2009 and is already above the level in most euro-area countries.<sup>(15)</sup> These developments might suggest that some of the fast growing economies have already reached the peak of their demand for high-value added goods that still cannot be produced domestically. Furthermore, a low diversification of exports and high concentration of Finnish exporters imply that the country is less well positioned to benefit from the global trade integration.

**Growing competitive pressures from low-cost countries might have speeded the restructuring in some traditional sectors amid the recent global crisis.** The impact of competition from low-cost countries on Finland has been so far contained to some industries (electronics and paper) while others (chemicals and metals) appear to have been more sheltered from competition from low-cost economies and benefited from trade integration.

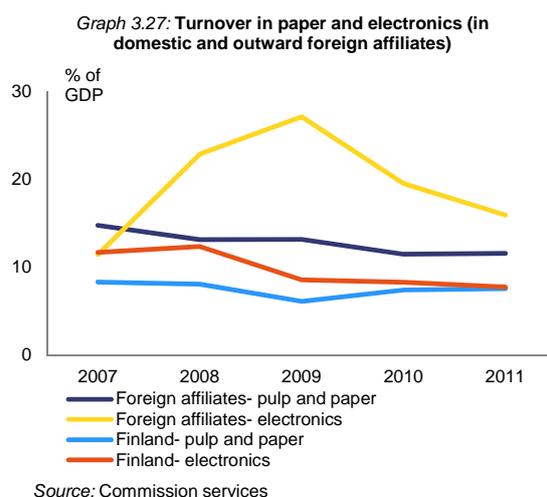
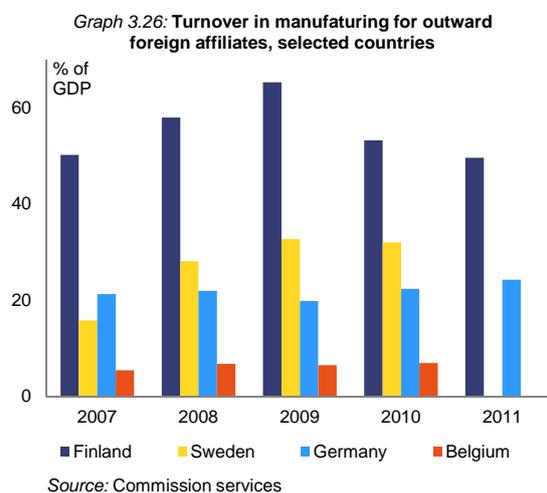
**The strategies of Finnish multinationals have also played a role in the EMS decline.** To gain access to worldwide markets, Finnish industries seem to have favoured FDI over exports, the value of production generated by Finland's foreign affiliates exceeding the domestic turnover in paper and electronics sectors (see Graphs 3.26-3.27, see also section 3.4 on FDI developments).<sup>(16)</sup>

<sup>(14)</sup> The impact of increased competition from fast growing emerging economies in Asia on the northern Europe countries is asymmetric with Germany benefiting from the new outsourcing opportunities brought by the integration of the low-cost emerging economies in the EU. (Current account surpluses in the EU, European Commission, 9/2012)

<sup>(15)</sup> BRIC's average share of high-tech goods masks diverse country performances. For example, China's high-tech export reached 34% of total goods exports in 2006 while Russia's high-tech export share is only 1%.

<sup>(16)</sup> Graph 3.29 shows that the turnover of Finnish affiliates abroad in manufacturing is significantly higher than in peer countries. Their turnover peaked in 2009 and declined afterwards, suggesting that not only Finnish exporters but also their affiliates abroad were less successful in recent years. In addition, the number of their employees abroad dropped by about 10% to 337 thousands over 2007-11.

However it is not clear to what extent these decisions were motivated by cost factors.



**Finland's specialisation shift from high-tech to more price-sensitive intermediate products brings further vulnerabilities.** Finland is becoming increasingly specialised in medium-tech products as these goods increased their share in Finnish exports from 35% to 50% over 2000-11. This mirrors a decline in the prominence of high-tech goods with their share shrinking from above 20% to less than 10% over the same period. Finland's technological configuration has thus diverged from that of the euro area, the shift reflecting the internationalisation of production and the integration of the Finnish economy into global production chains. Conversely, this trade specialisation entails risks as medium-tech goods

tend to be more price elastic than high-tech capital products, exposing the economy to increasing competition from low labour costs emerging economies.

**Finnish exports showed a relatively good performance in terms of value-added.** Trade in value added aims to capture the domestic content-value that countries are adding to the value of goods and services exported.<sup>(17)</sup> Finland benefitted from being increasingly integrated into global value chains (GVC) as proved by the dynamics in its domestic value-added content of exports (see Box 2). Available data on Finland also show that not only electronics and paper industries but also other traditional sectors such as chemicals and metals are already well integrated into global value chains. However, the integration in GVCs comes along with increased output volatility and high adjustment costs, as industries optimize costs by relocating across countries.<sup>(18)</sup>

<sup>(17)</sup> The value-added in trade statistics also reflects to what extent a country can compete with others in terms of activities related to global manufacturing, rather than competing in manufacturing goods as measured by exports. A favourable gross exports-based indicator does not necessarily indicate a competitive edge in the production of a specific product and might mask the fact that a country is merely specialised in the final assembly of that good by importing intermediate inputs while creating less value added.

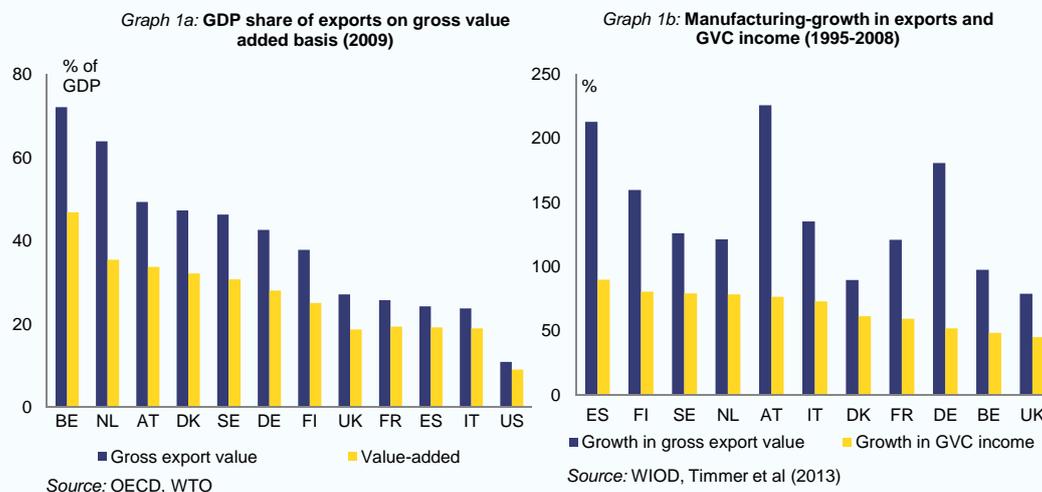
<sup>(18)</sup> Changes in the set of activities carried out in global manufacturing production have not been factor-neutral as the share of capital income increases faster than labour income, both in mature and emerging economies, according to Timmer et al. (2013).

### Box 3.2: FINLAND IN THE GLOBAL VALUE CHAINS (GVC)

Finland's growing internationalization of production is reflected in increased consumption of intermediate inputs in manufacturing. The imported inputs in manufacturing intermediate consumption increased from 34% to 40% over 2000-10.<sup>1</sup> Conversely, the use of intermediate inputs produced by domestic manufacturing declined by 8 pps. while the use of domestic market services increased in manufacturing by 1½ pps. over the last decade.

Standard trade statistics do not take into account that economies are increasingly interconnected at all stages of the production chain. They have been mainly designed to capture trade flows in final products, while the main trade component is currently intermediate products.<sup>2</sup> If, for example, intermediate products cross borders several times at different stages of production, their value is artificially increased in traditional trade statistics. These distortions are corrected by measuring trade in terms of value-added.<sup>3</sup>

Graph 1a shows that the segmentation of production across countries creates a wedge between the gross export value and the domestic value-added that is embedded in exports. The domestic value-added content of exports in Finland is broadly in line with the peer countries and higher than in Belgium and Netherlands (as percent of exports)<sup>4</sup>. Graph 1b indicates that Germany's manufacturing exports increased by 180% over 1995-2008, whereas its manufacturing GVC income increased only by 52% during the same period. It also shows that, prior to the crisis, Finnish manufacturing exports have expanded faster than in Germany and in Austria in terms of growth in value-added.<sup>5</sup> Equally important, data reveals that the decline in manufacturing GVC employment in Finland (from 24% to 20% of total employment over 1995-2008) was fully offset by expanding employment in services GVC.<sup>6</sup>



<sup>1</sup> Based on Finland's input-output tables from 2000 and 2010 (Eurostat).

<sup>2</sup> Intermediate inputs accounted for 56% of world goods trade and 72% of services trade (OECD, 2009)

<sup>3</sup> The OECD and WTO TiVA database provides statistics from 40 countries and 18 sectors on foreign trade in goods and services computed on a value-added basis up to 2009.

<sup>4</sup> Conversely, the foreign value added embedded in exports is about one third of gross exports in Finland, broadly in line with other developed countries. Higher shares of foreign value added are recorded in electrical equipment and basic metals (about 50%), followed by chemicals, minerals and transport equipment (45%).

<sup>5</sup> German and Austrian firms took advantage of foreign suppliers by outsourcing higher shares of their production processes, mainly in Central and Eastern Europe.

<sup>6</sup> Similar trends developed in all Nordic countries, while Germany recorded significant net increases in total GVC employment. In contrast, France, United Kingdom and Belgium recorded losses.

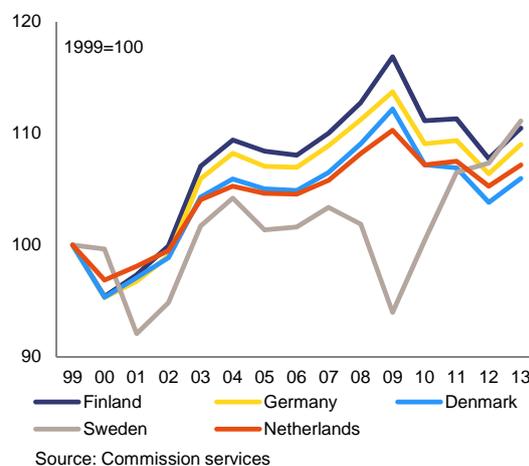
### 3.3. PRICE AND COST COMPETITIVENESS

The analysis in the previous section has emphasized that increasing specialisation in cost-sensitive intermediate products makes price-cost competitiveness a prominent issue for Finland's export performance. In the following, cost competitiveness indicators are analysed against the developments in peer countries, assessing their contribution in explaining the Finnish export performance. Thereafter, labour costs are examined in greater detail in section 3.3.2, looking into sectoral unit-labour cost (ULC) developments, productivity and prices as well as their interplay. Section 3.3.3 highlights the importance of other cost pressures on competitiveness in manufacturing, beyond wages (e.g. energy costs, input prices from non-tradable sectors) as well as the impact on profitability.

#### 3.3.1. Nominal and real effective exchange rate

**Finland's nominal effective exchange rate cannot explain the country's subdued export performance.** Developments in Finland's nominal effective exchange rate (NEER) are largely similar to other euro-area Member States like Germany and Netherlands, whereas Finland experienced the largest drop in export market share (Graphs 3.28). As highlighted in the previous IDR, exchange rate movements vis-à-vis Finland's main trading partners, particularly Sweden and Russia, have briefly amplified the appreciation in the NEER in 2009, however the overall impact was modest and has reversed in the meantime.

Graph 3.28: NEER in selected countries (index)

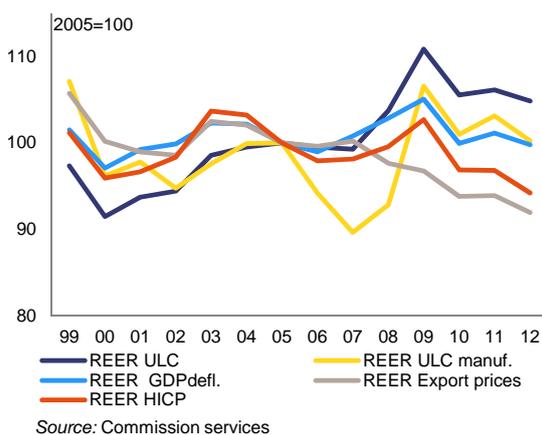


**Finland's conventional real effective exchange rate (REER) indicators present a mixed picture.** Finland's REER, based both on HICP and ULC, largely trailed the developments in the Euro/USD exchange rate. As a small open economy, the HICP-based REER may not be a good competitiveness measure for Finland as prices are significantly influenced by external price developments. The cumulated appreciation in total economy ULC-based REER implies a deterioration in Finland's cost competitiveness of about 15 pps. over 2000-09, followed by a modest adjustment of about 5 pps.<sup>(19)</sup> ULC dynamics amplified developments in the REER particularly in 2008-09 when the sectoral wage agreements provided high wage growth and output fell at a faster rate than employment. These increases in ULC-based REER were only partially compensated in 2010, while thereafter the REER stabilised. The ULC-based measure for Finland also indicates the largest loss in cost competitiveness among peer countries. Germany experienced a similar appreciation of its NEER, but the impact on REER was offset by considerable wage restraint and decreasing relative ULC.

<sup>(19)</sup> Darvas (2012) estimates that the constant-weight REER-ULC in Finland depreciated by an additional 2.5% than the conventional ULC-based REER (cumulative % change over 2008-11). This is mainly due to the impact of compositional changes on average productivity, labour compensation and REER-ULC, as sectoral shifts, such as shrinkage of low labour productivity and the low-wage construction sector, can lead to apparent increases in average labour productivity and wages, especially when capital intensity differs across sectors.

The appreciation of the REER based on a broader set of deflators appears significantly more limited.<sup>(20)</sup> In particular since 2007, price deflated REER indicators point to no further deterioration (Graph 3.29).<sup>(21)</sup> Graph 3.30 shows that Finland experienced the largest discrepancy between the ULC- and export prices deflated REER, suggesting that Finnish exporters have increasingly compensated the gap in cost competitiveness by adjusting prices and cutting their profit margins. As described in section 3.3.3, retaining price competitiveness in the short run by depressing profit margins undermines the capacity of companies to invest and thus reduces overall competitiveness in the longer run and contributes to further outsourcing of production.

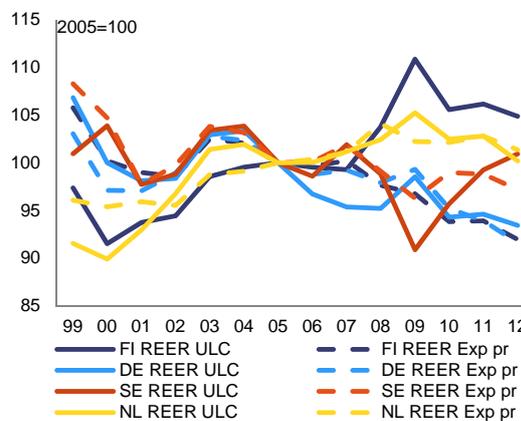
Graph 3.29: Real effective exchange rate in Finland (index)



<sup>(20)</sup> This is also confirmed when examining a range of REER-indicators (based on wholesale prices, CPI, ULC, and export unit values) separately on intra- and extra-euro area trade for Finland. (Bayoumi et al., 2011)

<sup>(21)</sup> HICP- and ULC-based REERs face a number of limitations in gauging competitiveness, as they depict the relative prices of domestically sold consumer goods including taxes and import prices or, in the case of the latter, reflect only a subset of costs- labour, omitting other input costs and profit margins. A common issue shared by consumer price indices, GDP deflators and producer price indices is that they comprise both non-traded and traded goods, whose prices may diverge over time due to different sectoral productivity growth paths.

Graph 3.30: ULC and export price based REER, selected countries (index)



**Alternative REER based indicators do not point to a gap in competitiveness.** With an increasing role of global supply chains and production sharing, changes in relative prices of goods have become less sensitive to changes in relative factor prices. Thus conventional REERs might be less suitable in assessing price competitiveness when imports are increasingly used in exports. Both tasks-based REER<sup>(22)</sup> and Goods REER<sup>(23)</sup> show that the competitiveness challenge in Finland appears less dire than suggested by cost-based indicators (Graph 3.31). A more general finding would also be that both appreciations and depreciations in REERs tend to be moderated when accounting for outsourcing. Finland's tasks-based REER even indicate a slight improvement in competitiveness, as its participation in GVCs has helped offsetting the impact of rising domestic costs and its competitiveness has not been eroded by the increasing cost of imported production factors from emerging economies (with higher inflation).

<sup>(22)</sup> Tasks-based REER (Bems & Johnson, 2012) captures the overall cost competitiveness of the full range of a country's production factors. Under this framework, countries compete in the supply of value-added (tasks) rather than products. The method uses bilateral trade in value added to construct weights and GDP deflators to measure changes in relative prices, as they summarize both capital and labour factor costs.

<sup>(23)</sup> Goods REER (Bayoumi et al., 2013) reflects the interplay of outsourcing in offsetting the effects of domestic price inflation by including the changes in the cost of intermediate inputs. The method uses GDP deflators to measure changes in relative prices and bilateral gross trade and the foreign versus domestic composition of value added embedded in tradables to construct weights.

### Box 3.3: DETERMINANTS OF EXPORTS IN FINLAND

Using quarterly data during 1995–2012, the Finnish export volumes are regressed on ULC-based REER and foreign demand (calculated as trade-weighted import demand of Finland’s main export recipients). The estimation is based on an error-correction model in the first step- a long-run cointegration relation with variables in logarithms. In the second step, short-run elasticities were estimated with variables in first differences, along with the error correction term from the cointegration equation. The findings are consistent with economic intuition as the estimated coefficients for foreign demand and the REER are of the right sign.

The results (presented in Table 1) suggest that: i) 1% increase in Finland’s foreign demand is associated with an increase in exports of around 0.7% in the short and 1% in the long run; ii) 1% increase (appreciation) in Finland’s REER is associated with a decline in exports of about 0.1% in the long run, whereas the short-run impact of REER on exports is not statistically significant.

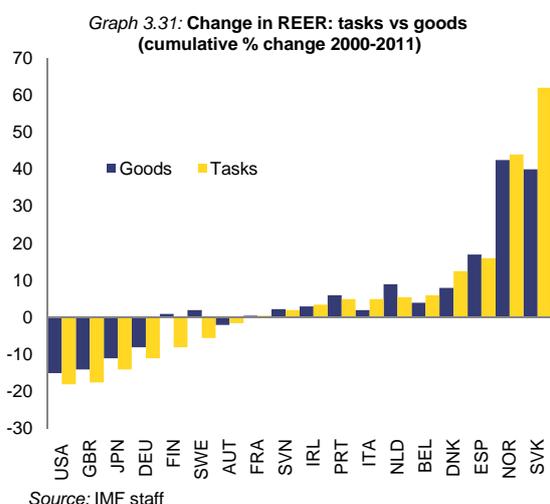
**Table 1:**

**Estimates of the export equation for Finland**

Long-run elasticities		Short-run elasticities		
Foreign demand	REER	Foreign demand	REER	R-Squared
0.67*	-0.15*	1.04**	-0.31	0.57

\*\* significant at 1 percent significance level, \* significant at 5 percent significance level

Source: Commission services



**REER-based indicators seem not to be the main drivers of changes in Finnish exports.** Box 3 indicates that foreign demand dynamics are the main driver of the variance in exports whereas Finland’s REER explains about 15% of the long term changes. <sup>(24)</sup> Although it appears that ULC-

<sup>(24)</sup> Rodriguez et al. (2012) estimated export equations on ten advanced economies using REERs based on ULCs, manufacturing wages and GDP deflators. The findings suggest that although there is a long-term relationship between relative-price-based competitiveness indicators and exports, the REERs in most cases explain well below 10% of the variance in individual exports, while world trade is the variable that best explains export developments

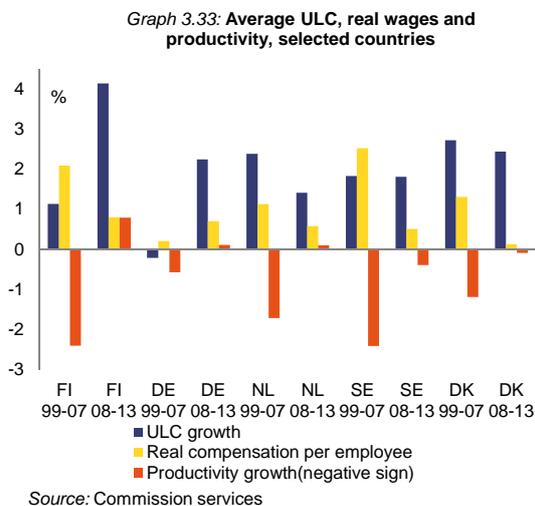
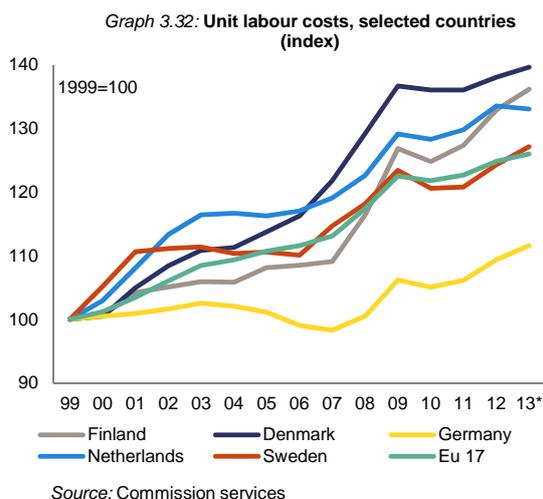
based REER has no major direct impact on export dynamics, wage increases affected profitability, with a corresponding impact on investments.

#### 3.3.2. Labour costs

**Losses in cost competitiveness are largely attributed to rising prices and productivity-adjusted wages in the non-tradable sector.** The analysis in this section also finds that economy-wide unit labour cost developments mask large divergences between ULC in tradable and non-tradable sectors. ULC dynamics in Finland appear to be higher than in the peer economies, but the difference is not so evident in manufacturing, while it is more prominent in non-tradable sectors, leading also to higher aggregate price levels. Due to price effects from the electronics industry it also appears that manufacturing ULC indicate a more benign picture than the one displayed by labour costs to output value. In response to these developments, the agreement reached by social partners to contain wage growth is a positive sign, while to correct the accumulated competitiveness gap entirely will take time.

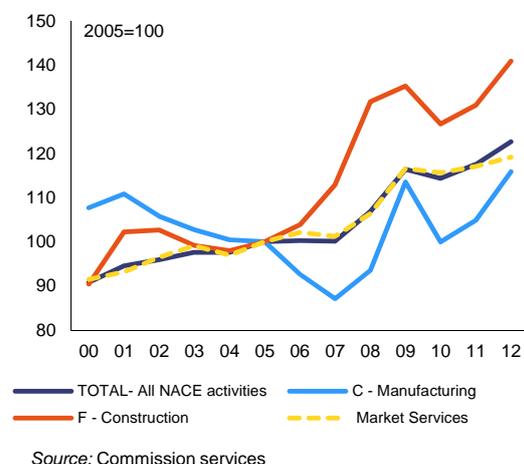
(about 80%, with the remainder being explained by the past behaviour of exports).

**Finland's losses in EMS have overlapped with an increase in unit labour costs since 2009.** Until 2008, economy-wide ULC growth in Finland was slower than in peer economies and the euro area as a whole, if Germany is regarded as an outlier with its prolonged wage moderation (Graph 3.32). Real compensation per employee expanded by 2.1% on average per year over 1999-2007 with only Sweden recording similar growth rates, but productivity also increased at a faster pace in Finland (Graph 3.33). Despite the relatively subdued ULC in the pre-crisis period, Finland's trade performance lagged behind in the region, emphasizing the puzzling role of labour costs in measuring competitiveness. As of 2008 however, ULC in Finland have expanded at a faster pace following the stronger growth of wages as well as negative productivity developments and the drop in EMS accelerated.

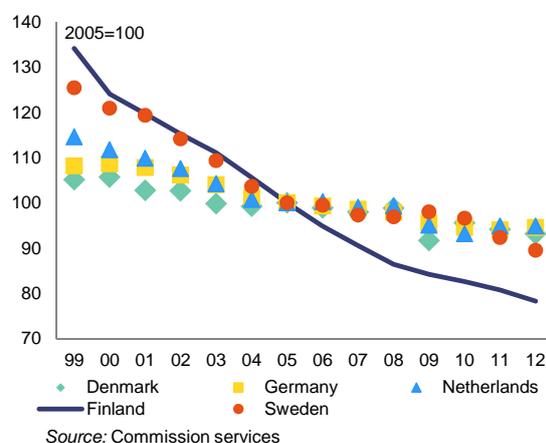


**Sectoral ULC developments show steadily increasing labour costs in non-tradables and subdued in tradables.** Large divergences between ULC in the tradable and non-tradable sectors, caution against using aggregate ULC as an indicator of export competitiveness (Graph 3.34). Labour compensation expanded on average at the same rate in tradable and non-tradable sectors in Finland until 2008, whereas productivity growth in manufacturing significantly outpaced productivity growth in sectors more sheltered from international competition like services and construction. Since 2008 labour compensation slowed down in most of the sectors, however it was still growing faster in non-tradable sectors. Although ULC dynamics in Finland appear to be higher than in the peer economies, the difference is not so evident in manufacturing, whereas it is more pronounced in non-tradable sectors.

Graph 3.34: ULC by sector (index)



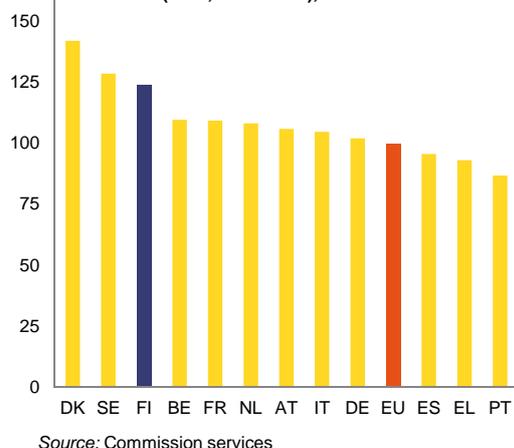
Graph 3.35: Price index of Gross value added in tradables, selected countries



**ULC increases are closely linked with rising prices in the Finnish non-tradable sector.** An alternative decomposition of ULC shows that losses in cost competitiveness are largely credited to growing prices in the non-tradable sector, which may affect the tradable sector only indirectly via escalating input prices and mounting pressures for wage increases amid tighter labour markets (see Box 4). More generally, the relative price of tradable to non-tradable declined substantially over time in Finland, reaching the lowest ratio among its peers (Graph 3.35). Prior to the crisis, the negative contribution of the share of wages to ULC in Finnish manufacturing (-0.8% per year) was offset by more negative price developments (-2.4% per year), indicating that companies have more than passed through their cost gains to prices, squeezing profit margins. These developments highlight that Finland has experienced limited price competitiveness losses in the tradable sector, as exporters are generally price takers of exogenous international prices and they remained relatively insulated from the domestic demand-driven escalating prices.

**Weak competitive pressures in non-tradable sectors lead to high prices, aggravating the erosion of external competitiveness.** The price level in Finland is among the highest in the euro area (see Graph 3.36). The level mirrors the high prices of the non-tradable sector (labour intensive) relative to those in the tradable sector (capital intensive), which tend to be similar across countries with the free trade of goods. While excluding volatile energy and seasonal food prices, Finland also performs worse than its neighbours and the euro-area average in terms of core inflation. This reflects relatively weak competitive pressures. Increasing competition could lower both production costs and mark-ups of Finnish companies, resulting in a lower price level.

Graph 3.36: Price levels of final consumption of households (2012, EU27=100), selected countries



### Box 3.4: ULC DECOMPOSITION INTO COST AND PRICE COMPONENTS

While the traditional decomposition of ULC dynamics reveals the contributions of nominal wages and labour productivity changes, an alternative approach (Felipe and Kumar (2011)) decomposes ULCs on a cost competitiveness component - share of labour in nominal value-added and a price competitiveness component - value-added price.

Table 1 shows the average annual growth rates of each ULC component over 1999-2007 and 2008-12 by main sectors of activity. ULC increases in both periods are mainly driven by price developments for all the countries in the region, whereas the largest impact comes from the value added price dynamics within the non-tradable sector. Differences between value-added price trends in tradable and non-tradable sectors were significantly larger in Finland than in the neighbouring economies throughout the last decade. Construction, professional and support services, as well as public administration (including social and healthcare services) recorded high annual increases in prices, whereas value-added prices in manufacturing posted the strongest decline in Finland among the peer countries (averaging -1.7% per year over 1999-2012, with only Sweden recording negative average annual rates of -1.3%). Thus, increasing overall ULC may not necessarily trigger losses in export competitiveness, but may indicate a booming domestic demand prior to the crisis. In contrast, labour compensation in total nominal value added remained rather constant in the region over 1999-2007, except Germany where wage restraint had a significant positive impact on firms' profitability. The analysis also shows that higher ULC in the Finnish tradable sector since 2008 is mainly due to significantly lower value added in manufacturing (-30.6% between 2008 and 2012) rather than wage hikes.

Table 1:

#### Decomposition of sectoral ULC on share of wages and value added prices, selected countries (avg annual growth rate)

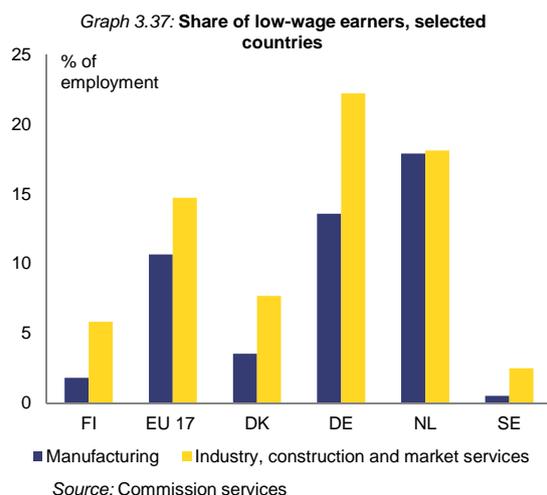
	Denmark		Germany		Netherlands		Finland		Sweden	
	1999-07	2008-12	1999-07	2008-12	1999-07	2008-12	1999-07	2008-12	1999-07	2008-12
<b>Share of compensation of employees in value-added</b>										
Total - All NACE activities	0.3	-0.2	-1.1	1.1	-0.5	0.8	-0.2	2.2	0.2	0.0
Manufacturing	0.2	0.8	-1.8	0.8	-1.3	0.7	-0.8	7.5	-0.2	0.9
Construction	1.0	0.5	-1.1	-1.4	-1.6	1.9	-0.8	3.1	-0.5	2.0
Wholesale & retail, transp., accomodation	0.2	0.6	-1.4	3.0	-0.1	2.4	0.1	1.2	-0.7	0.6
Financial and insurance activities	0.0	-4.1	2.6	0.3	1.3	-6.9	-1.2	7.9	4.4	-4.0
Real estate activities	3.6	-1.3	-2.2	-0.7	0.9	7.4	-0.3	-0.7	3.3	-0.1
Professional, adm. & support serv.	1.6	-1.4	0.8	5.0	0.1	2.0	0.1	1.3	-0.2	1.0
Public administration and services	0.2	0.1	-0.6	0.0	-0.2	-0.4	-0.1	0.0	-0.1	-1.0
<b>Value added prices</b>										
Total - All NACE activities	2.7	2.7	0.5	1.1	2.9	1.1	1.6	2.1	1.7	1.7
Manufacturing	1.5	-0.9	-0.2	1.1	1.0	0.8	-2.4	-0.6	-1.8	-0.6
Construction	4.6	1.2	1.5	3.9	5.2	1.8	5.3	1.6	5.7	4.7
Wholesale & retail, transp., accomodation	2.1	2.9	0.0	0.3	1.0	0.2	1.0	1.8	1.7	1.4
Financial and insurance activities	-1.7	7.3	0.9	-0.4	1.3	10.0	3.4	-1.0	-2.2	3.0
Real estate activities	4.2	2.7	0.8	0.9	4.5	-5.4	3.5	3.8	3.0	1.5
Professional, adm. & support serv.	4.7	2.2	0.9	1.2	4.1	0.9	5.2	3.9	3.2	1.6
Public administration and services	3.3	3.1	1.2	1.9	4.6	1.7	5.4	5.1	4.9	2.8
<b>Unit labour costs</b>										
Total - All NACE activities	3.0	2.5	-0.6	2.3	2.4	1.9	1.3	4.3	1.9	1.7
Manufacturing	1.7	-0.1	-2.0	2.0	-0.3	1.4	-3.2	6.9	-2.0	0.3
Construction	5.6	1.6	0.3	2.5	3.6	3.6	4.5	4.7	5.2	6.7
Wholesale & retail, transp., accomodation	2.3	3.5	-1.4	3.3	0.8	2.6	1.1	3.0	1.0	2.0
Financial and insurance activities	-1.6	3.3	3.5	-0.1	2.5	3.1	2.1	6.9	2.2	-1.0
Real estate activities	7.8	1.4	-1.4	0.2	5.4	1.9	3.3	3.1	6.2	1.4
Professional, adm. & support serv.	6.3	0.8	1.7	6.2	4.2	2.9	5.3	5.2	3.0	2.6
Public administration and services	3.4	3.2	0.6	1.9	4.3	1.4	5.3	5.1	4.8	1.8

Source: Commission services

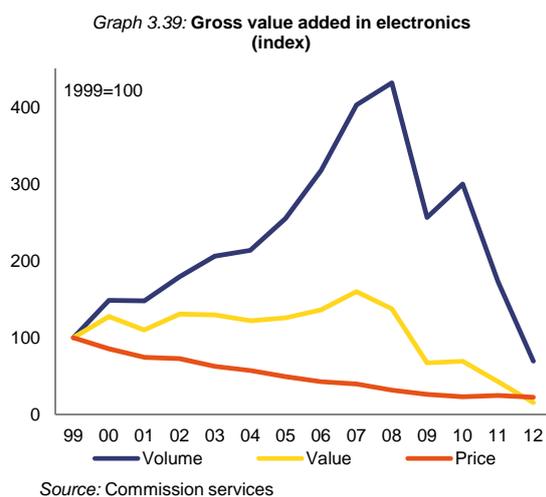
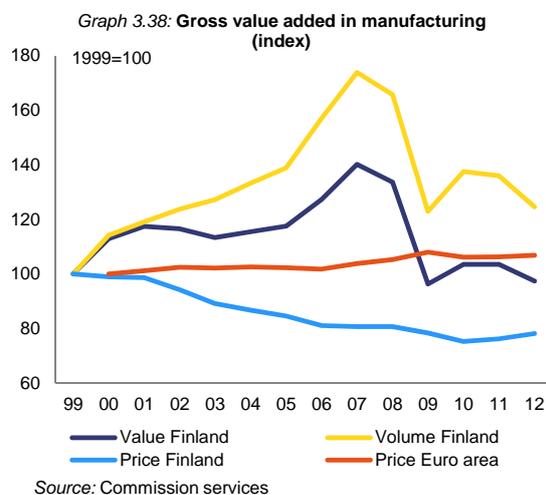
**Low wage dispersion may contribute to high price levels in Finland.** More equal wage distribution (i.e. smaller wage dispersion) typically reflects less differentiation across various skill levels of workers and seems to be associated with

higher prices. Both Finland and Sweden have very low proportions of low-paid workers (Graph 3.37) which together with relatively high unemployment among low-skilled imply high prices for unskilled services. Lower wage dispersion could also lead to

a negative effect on the productivity of highly skilled workers and combined with better work conditions in the public sector may discourage skilled workers from taking jobs in the private sector (Mahy et al., 2011).



**ULC developments in manufacturing are distorted by price effects from the electronics industry.** Competitiveness measures based on ULC in manufacturing are rather difficult to interpret in the presence of significant differences in industrial structures across countries or divergences in sectoral prices. Nominal value added in manufacturing sector gradually declined relative to output volume, mainly due to remarkably weak price developments in the Finnish industry. Graph 3.38 shows that prices in manufacturing dropped by 20% in Finland since 2000, whereas they marginally increased in the euro area. Therefore the value added in manufacturing remains below the 1999 level, a situation unique to Finland among the peer countries. Given the weight of the electronics in the Finnish industry, price developments in this segment had a particularly strong impact on the overall manufacturing sector (see Graph 3.39). As a result, ULC in manufacturing displayed a declining path in Finland until 2008 in line with the apparently stronger output and productivity growth amid falling prices.



### Box 3.5: THE NEW LABOUR MARKET AGREEMENT IN FINLAND

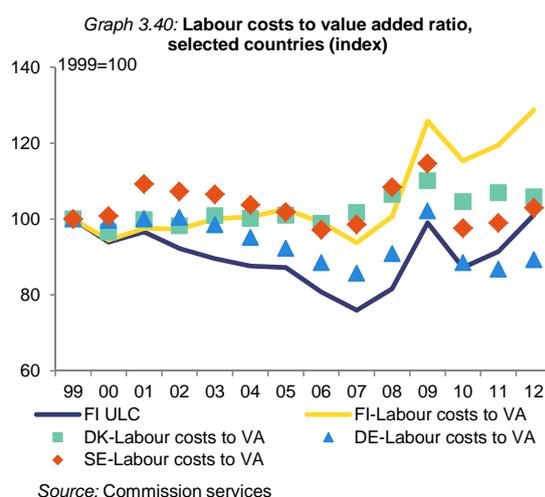
Wage agreements in Finland are negotiated between social partners while the government has only a secondary role. The government can only advise, provide research and offer certain incentives to facilitate a desired agreement. In addition, there is no legal framework on how and on what level (central or sectoral) an agreement should be reached. In August 2013 the central labour market institutions reached a preliminary agreement on a pact for employment and growth, which has become effective in October 2013. In addition to wages, it concerns also taxation issues and sets a path towards the pension reform.

The agreement provides significant wage moderation for at least 2014-15. The first agreed wage increase (EUR 20 per month, irrespective of the base salary) is expected to be implemented by mid-2014. The second agreed increase of 0.4% of base salary is envisaged to become effective after another 12 months. Both increases shall be applied across all sectors of the economy, including public service. The estimated impact on compensation per employee, including the wage drift, is an increase by 1.4% in both years. This contrasts to increases of 3.5% and 2.4% in 2012 and 2013 respectively (estimates), provided under the previous framework agreement. The social partners also agreed to meet in June 2015 to review the general economic situation, implementation of structural reforms, labour market situation, exports and competitiveness and other factors. The pact could be extended by two additional years, if an agreement is reached by June 2015.

To reduce the impact on real wages, unemployment insurance contributions for employee shall be reduced from 0.6% to 0.5% in 2014. However, agreed work related employee pension contribution rate will increase according to the previous agreements (22.8% in 2013 to 23.6% in 2014, 24.0% in 2015 and 24.4% in 2016). An agreement has also been reached to facilitate short-term employment.

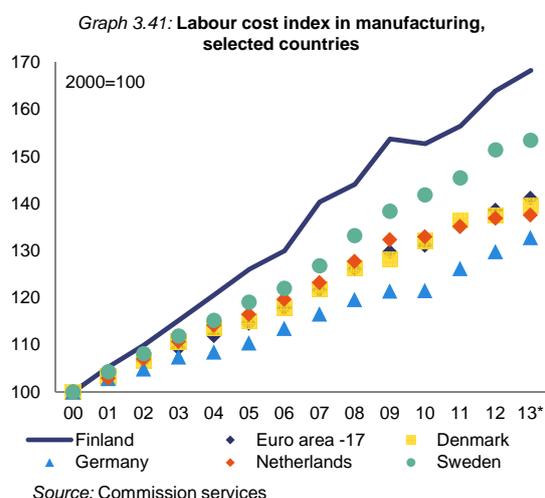
The social partners agreed on the need to review the effectiveness of the current bargaining system by the end of 2014. The review shall focus particularly on the binding character of collective agreements, the compliance with such agreements and on the sanctions incurred by various parties for breaching the agreement. It will include an assessment on ways of improving the conciliation system and dispute resolution procedure, and of implementing wage increases in industries that are not covered by an agreement.

**Manufacturing ULC indicate a more benign picture than the one displayed by the labour compensation to output value ratio.<sup>(25)</sup>** When measured against the output value to account for the cost structure and profitability conditions in which manufacturing companies operate, labour costs remained flat in Finland in the pre-crisis period, with only Sweden recording higher rates (Graph 3.40). After 2008, the labour cost indicator expanded strongly (by more than 25% over 2008-12), reaching the highest level in the region. In addition, these trends appear to be confirmed by the developments in the labour cost index in manufacturing <sup>(26)</sup>, depicting Finland above the euro-area average by more than 25 pps. over 2000-13Q3 (Graph 3.41).



<sup>(25)</sup> As ULC indicator is based on output volumes, it does not reflect the declining value of output due to decreasing export prices in manufacturing.

<sup>(26)</sup> Labour cost index measures the change in average labour costs per hour worked (Eurostat).



**The new labour market agreement in Finland could become an important step in restoring cost competitiveness.** The recent Tripartite Agreement, which became effective in October 2013 and will be valid for two years, sets wage growth at a moderate pace (see Box 5). The growth of compensation of employees is forecast to slow down from the current 2.4% level to about 1.6% for the years 2014-15. According to the autumn forecast, the agreement lowers the growth of unit labour costs to 0.4% in 2015, from a 3.7% growth in 2012 while assuming a productivity increase of 1.3%. However, the current wage formation implies that industries which show below-average productivity growth may have come under pressure due to relatively higher labour cost growth. Wage agreements do not explicitly take sectoral productivity growth into account to effectively curb labour costs growth. In addition, the current 25 months duration of wage agreements might be rather long in view of adjustment needs to unexpected changes in cyclical and competitiveness conditions and a review of the effectiveness of bargaining system is needed. In this respect, after the wage increases over 2008-09 decided just before the financial crisis it might take years for Finland to regain cost competitiveness relative to trade partners.

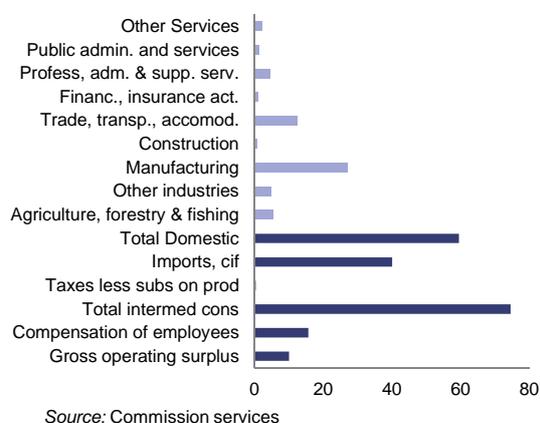
### 3.3.3. Other cost components and profit margins

**In recent years, Finnish exporters have been able to sustain price competitiveness mainly by compressing profit margins.** As highlighted

above, wages represent a growing share in manufacturing output, nevertheless, cost competitiveness is also undermined by other factors described in this section. High energy intensity and energy imports expose Finland to price shocks, affecting industries' competitiveness. Exporting industries are also facing increasing cost pressures from prices of intermediary inputs whereas unfavourable end-price developments compound the cost effects. The worsening profitability in manufacturing failed to rebound after the crisis, limiting its capacity to invest and create jobs. Restoring profitability in the tradable sectors could help firms to increase investment and improve their non-price competitiveness.

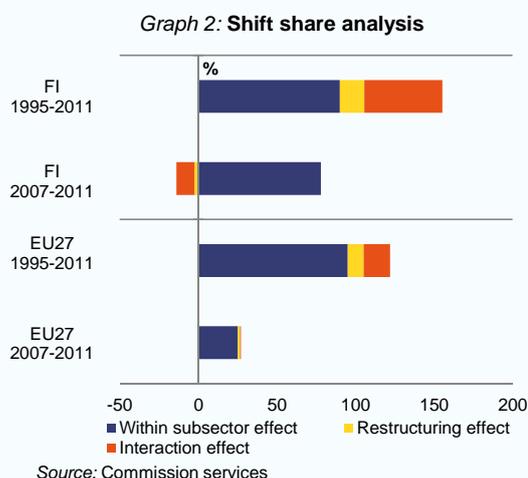
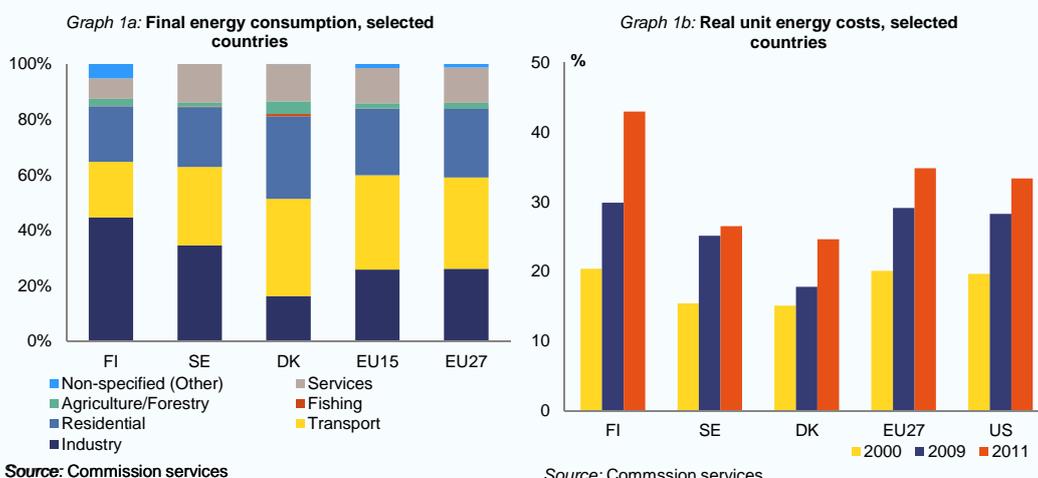
**Amid rising labour costs, exporting industries are also facing increasing cost pressures from intermediary inputs.** Based on the input-output tables for Finland, the share of intermediate goods and services in manufacturing output is significant at about 75%. High intermediate consumption and low value added may indicate that manufacturing labour costs are relatively less relevant to the price formation of final goods in the sector. Over a third of intermediate inputs in manufacturing come from domestic industries and about 40% from imports (see Graph 3.42 and Box 2). As noted earlier, deteriorating terms of trade have thus affected the cost competitiveness of Finnish exporters with energy costs playing an important role in this development (see Box 6).

**Graph 3.42: Manufacturing cost structure, % of output value (basis prices, 2010)**



**Box 3.6: ENERGY COSTS IN FINLAND**

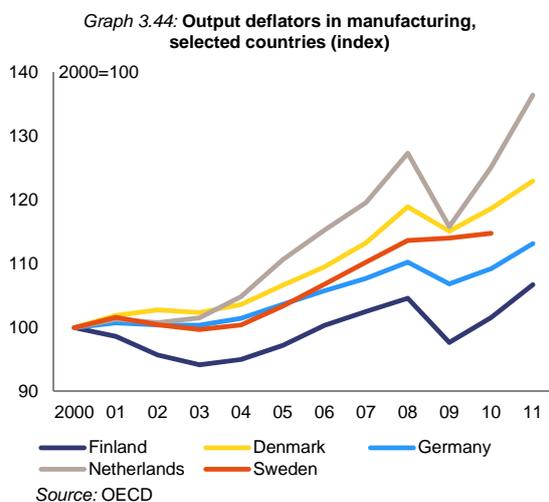
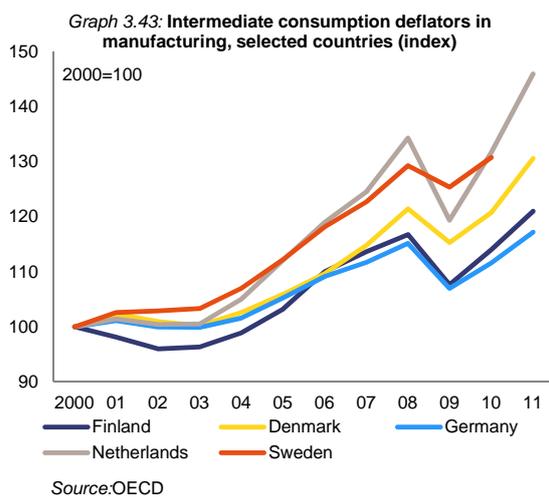
The Finnish economy is among the most energy intensive euro area economies. While its energy intensity recorded an average annual decline of 1.2% over the period 2001-11, it is the slowest pace of improvement when compared to regional peers. Finland's high energy intensity is driven by the industrial sector, as 45% of final energy consumption is attributed to industry in contrast to 35% in Sweden and 16% in Denmark (see Graph 1a). Some manufacturing sectors which account among the largest energy consumer industries in Finland (e.g. forest, metal and chemical industries) are also recording much higher energy intensities than their regional peers. A closer look at energy intensity in industry sectors reveals that energy intensive sectors increased their energy intensity over the last decade (Graph 1b).



Real Unit Energy Cost (RUEC) is higher in Finland than in regional peers, while its increase over 2009-11 is striking when compared to other EU countries. A shift-share analysis shows that the share of manufacturing sectors with high energy costs has increased over the reference period pushing the real unit energy costs up. Conversely, the restructuring effect had a small negative contribution to the growth of RUEC over 2007-11, suggesting that the value added shares of some sectors with high energy costs decreased from 2007. At the same time, pure energy costs (cleared of restructuring effect) applied a large upward pressure over the reference period, confirming that energy intensive industry are more exposed to changes in energy prices (Graph 2).

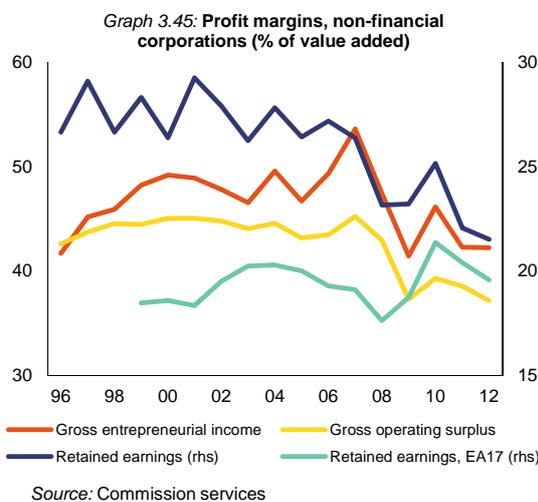
**Unfavourable end-price developments for exporting industries compound the cost effects.**

The price of intermediate consumption in Finnish manufacturing increased by 21% over 2000-11 broadly in line with developments in the region, nevertheless output price rose by only 7% over the same period, significantly lower than in the peer countries (see Graphs 3.43-3.44). This is also reflected by REER developments based on export prices showing that Finnish firms have compensated the most among their peers in the region the deterioration of cost competitiveness by adjusting prices and reducing profit margins. As discussed above, the electronics industry played also some role in these developments with its output price halving over the last decade.

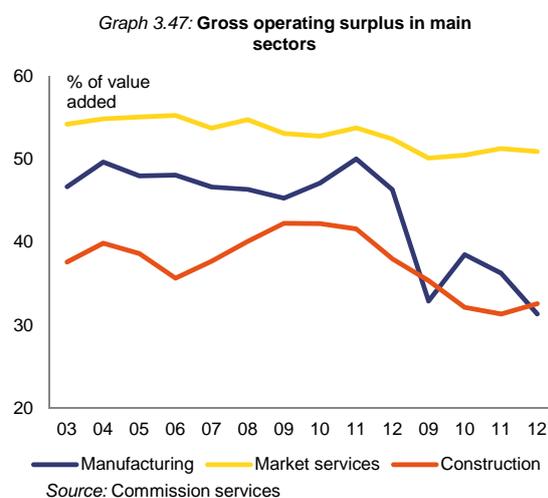
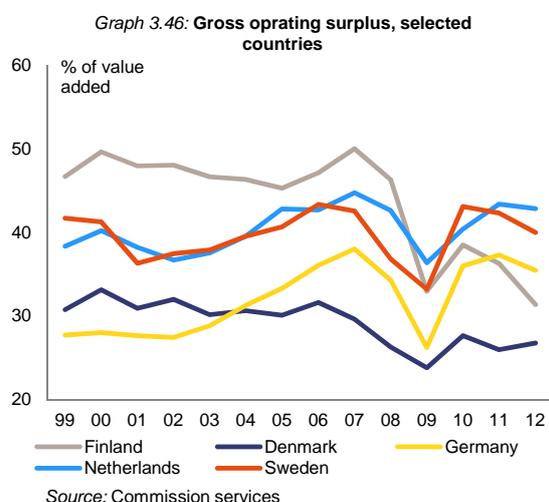


**The gross operating surplus of Finnish businesses has been on a downward trend since 2008.**

Profit margins across the Finnish economy, as measured by entrepreneurial income and gross operating surplus as a share of gross value added, have markedly declined since 2008 after staying flat over the pre-crisis period (Graph 3.45).<sup>(27)</sup> Profitability suffered particularly in 2008 and 2009 amid the global downturn, however, the margin recovered considerably less in Finland than in the peer countries over the following years. Whereas differences in profitability among sectors could be largely explained by sector-specific capital intensities and technological progress, changes in profitability over time point to the relative strength of businesses operating in various sectors. The deteriorating profitability reflects divergent trends across sectors in recent years. Graph 3.46 indicates that the overall decline in operating surplus is driven by erosion in manufacturing profitability while construction and market services show signs of recovery.



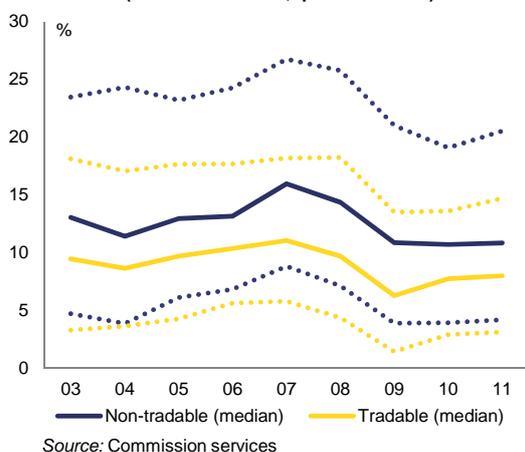
<sup>(27)</sup> Restructuring in the traditional tradable sectors, lower export prices and higher labour costs are among the underlying factors behind these developments.



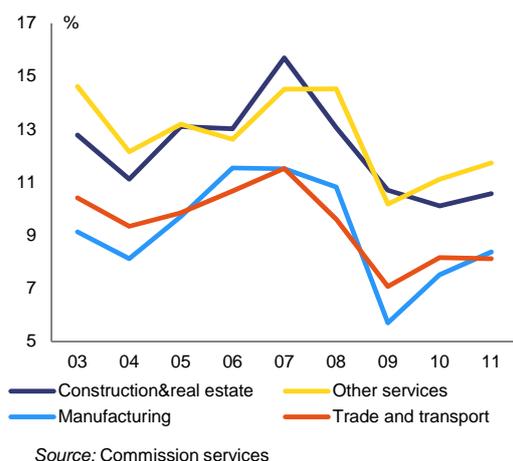
**Declining profitability in the manufacturing sector weighs on the overall competitiveness of the economy.** Operating surplus in the manufacturing industry has significantly dropped since 2008 as companies were unable to pass through production cost increases to prices (see Graph 3.47). This suggests that Finnish industries have been able to support price competitiveness mainly by compressing profit margins, which in turn has limited their financial capacity and incentives to invest. The open output gap would be expected to put downward pressure on real wages and restore profitability over time, but the adjustment might be slowed by a low inflation outlook. More generally, although Finland may offset losses in cost competitiveness with gains in non-cost competitiveness, losses in cost competitiveness and the ensuing low profitability undermine the capacity of companies to invest in non-price competitiveness factors (such as innovation), closely linking the two types of competitiveness.

**Also firm-level based data on profitability might hint at product market imperfections in Finland.** Prior to the crisis years profitability as measured by return on assets of firms in the non-tradable sector was above that of firms in tradable sectors in Finland (also in France, Spain, Greece or Portugal), but not in Germany. Finnish NFCs' profitability in both tradable and non-tradable sectors fell over 2008-09 in line with developments in other euro area countries and failed to rebound afterwards (see Graphs 3.48-3.49). In contrast, profitability in Germany experienced only a temporary set-back during 2008-09 while already exceeding pre-crisis levels in 2011. Even more important, the compression of profitability was in general stronger in the non-tradable sector, while tradables tended to hold up relatively better to the adverse economic shock. An inversion of relative profitability in favour of tradables occurred in most of the surveyed euro area countries, whereas the gap only marginally closed in Finland pointing to possible product market rigidities that hamper the readjustment process.

Graph 3.48: Return on assets  
(medians solid line, quartiles dotted)



Graph 3.49: Return on assets by sector (medians)

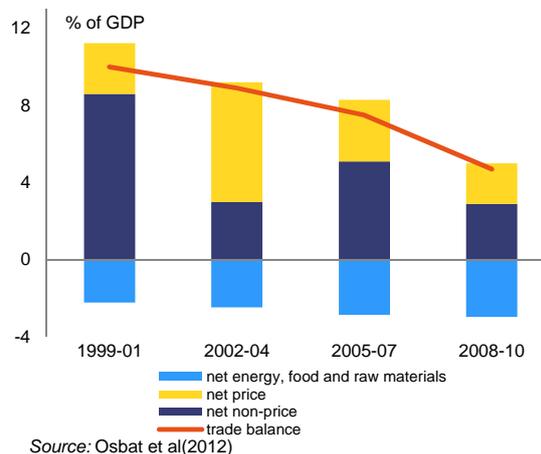


### 3.4. NON-PRICE COMPETITIVENESS

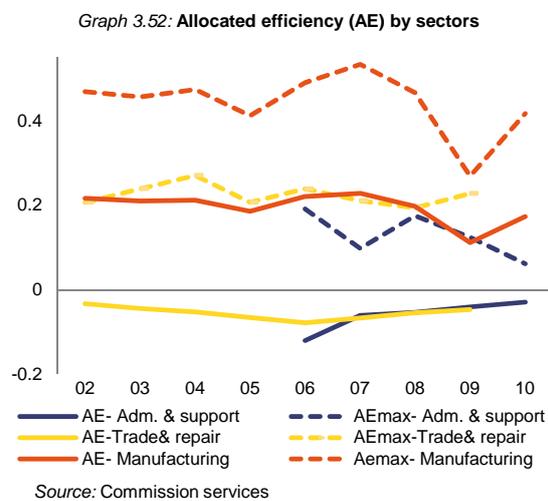
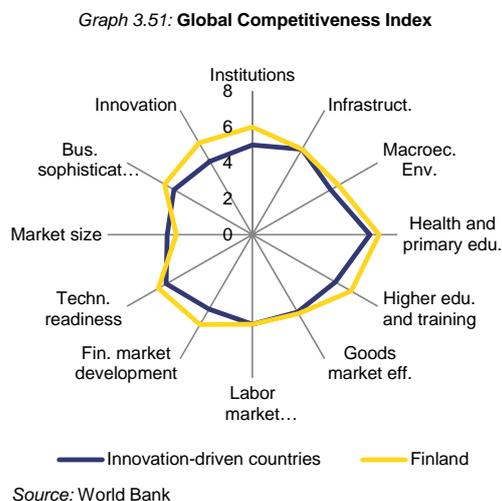
**Although cost competitiveness is a contributing factor, the deterioration in trade performance seems mainly due to losses in non-cost competitiveness.** As concluded in the previous section, Finnish export prices remained competitive despite cost competitiveness losses when compared to developments in peer countries, suggesting that a poor export performance might rather be explained by quality related factors. Available estimates based on disaggregated product data, disentangle the separate effects of the price and non-price components on Finland's trade balance (see Graph 3.50). According to this framework, it appears that the deterioration in the trade balance over the last decade is mainly driven

by non-price factors whereas changes in net price and net energy components played a smaller role.

Graph 3.50: Trade balance decomposition



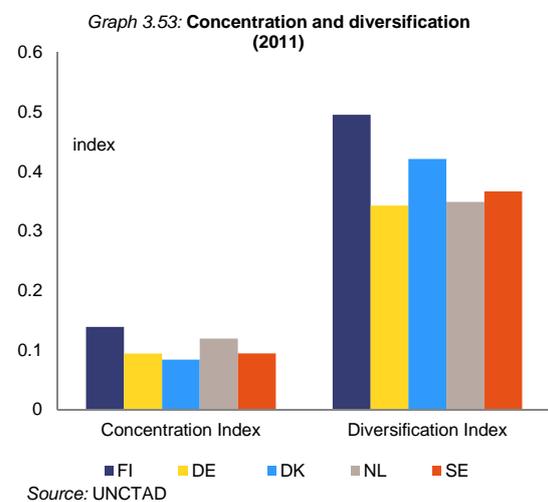
**In global rankings Finland is seen among the top league of the most competitive economies and Finland has one of the highest R&D expenditures.** Finland's competitiveness ranks third in the Global Competitiveness Index of 2013-14 and compares also well with other innovation driven economies on the ease of doing business indicators. The country is considered to be the world leader in institutional setup, health, education and innovation, while retaining top positions regarding financial markets development and business sophistication (see Graph 3.51). In turn, somewhat weaker points are the macroeconomic environment, labour market and product market efficiency. In addition, total R&D spending as a share in GDP in Finland is the highest in the EU.



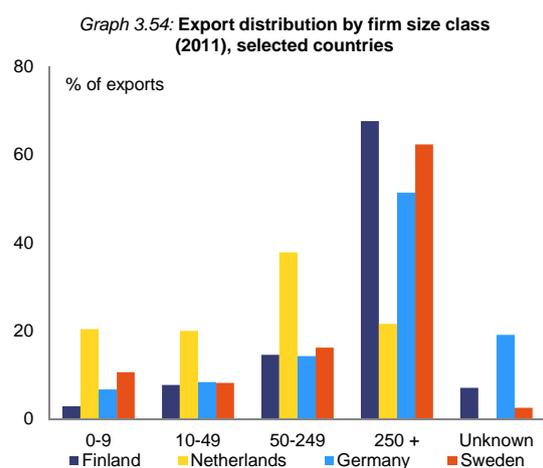
**The interplay of various factors can help explaining the apparent paradox of a competitive and innovative economy losing export market shares at record speed.** Recent sluggish productivity increases in Finland illustrate the importance of focusing on non-price competitiveness (see Box 1). Stagnating total factor productivity growth appears to be related not only to lack of competition but also to the failure of many Finnish firms to grow and become international players. The limited allocative efficiency in non-tradable sectors, less efficient R&D spending and capacity of firms, in particular SMEs, to develop exporting activities, quality of the products as well as lack of investment in manufacturing are among the underlying drivers examined in this section.

**Weak competition in non-tradable sectors is hampering allocative efficiency within sectors.** Estimates on allocative efficiency indicate that resources are allocated in a less efficient way in most of Finnish services and some factors (such as excessive regulation or rent-seeking) prevent competition to work properly (see Graph 3.52). The OECD's 2013 Product Market Regulation scoring also points to relatively high regulation when compared to other euro area countries in transport sectors, energy, retail trade and postal services. While some progress has been made in recent years in enhancing competition in Finnish network industries, improvements have been slower than in other euro area countries, largely reflecting a high share of public ownership in transport and utilities sectors.

**A limited number of large exporting firms selling a narrow product range contributed to the poor export performance in Finland.** Whereas firm size is a significant determinant of ability to engage in export activities as larger firms are typically more capable of doing the initial investment for penetrating foreign markets, a concentration of exports in a limited number of large trading firms could become equally problematic. The impact of electronics industry (Nokia) on declining exports is one recent example. In 2012, the top 1% Finnish exporting firms accounted for 76% of gross exports. Structural indices of Finnish merchandise exports confirm a relatively higher concentration and lower diversification of exports (see Graph 3.53), suggesting that the country's trade performance is more prone to shocks in specific sectors/products.



**Similarly, a lower propensity of Finnish small companies to export also weighs on trade performance.** Although the average Finnish firm across sectors is similar to its peers in the region both in terms of employment and productivity levels, small firms contribute less to total exports than in other countries (about 2%, see Graph 3.54). Whereas the lower propensity of Finnish small companies to export could be related to a relatively more dynamic domestic demand, microeconomic factors (e.g. cultural aspects, export promotion policies) might also play a role in their lower export performance. A review of size-dependent policies with lock-in effect in the areas of taxation and public funding for business development and R&D could reveal their role in discouraging the small firms to grow and contribute to exports (see Box 7).

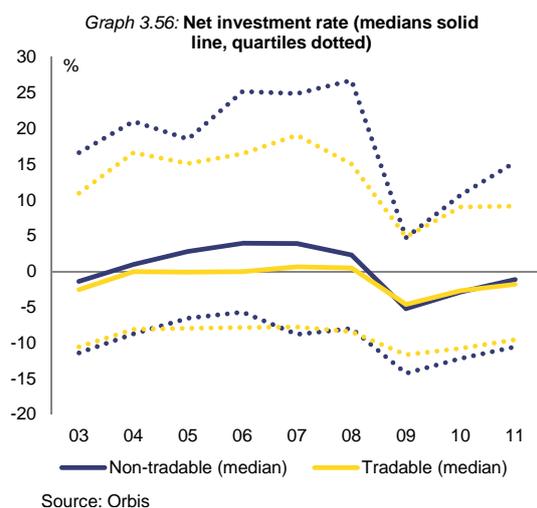
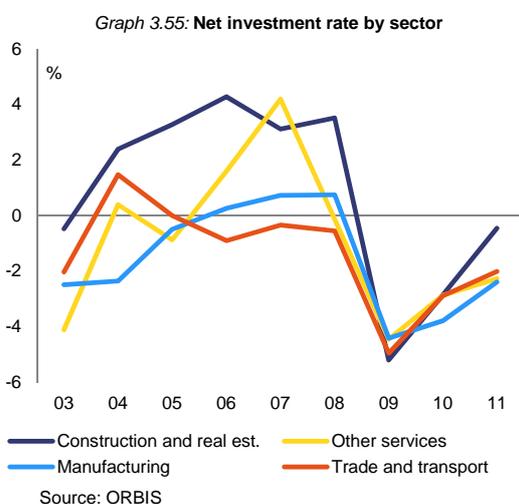


**Efforts of the Finnish companies to enhance their products quality proved insufficient, particularly in high-technology industries.** As quality encompasses physical characteristics as well as intangible characteristics of products (e.g. brand name and reputation, labelling, consumer tastes etc.), evidence on quality of exported goods is mostly indirect. While increasing export market shares combined with higher prices is typically a good indicator of improvements in quality as in this combination higher prices capture consumer preferences for product quality, the developments in Finland's trade performance and export prices suggest lower improvements in quality relatively to peers. Furthermore, the losses in market shares have been concentrated in high-quality product

segments corresponding to higher unit values, where firms could benefit from substantial price premiums.

**Increasing competition and improving quality of products from developing countries weigh on competitiveness in Finland.** Disaggregated trade data shows that increased competition from developing economies puts pressure on developed economies to constantly improve the quality of their exported goods. More generally, most of the advanced countries suffered losses in non-price competitiveness, while developing economies experienced gains. For example, Benkovskis and Wörz (2012) find substantial quality improvements in exports of EU 10, with an asymmetric impact on EU advanced economies. While estimates on Finland are not available, in a sectoral perspective, EU 10 countries showed strong quality gains over the past decade in traditional sectors for Finnish exports like machinery and mechanical goods, followed by improvements in transport equipment, base metals and chemical products. These findings suggest that faster quality improvements in developing countries might put a permanent lid on the trade performance in traditional industrial products in advanced economies, including Finland.

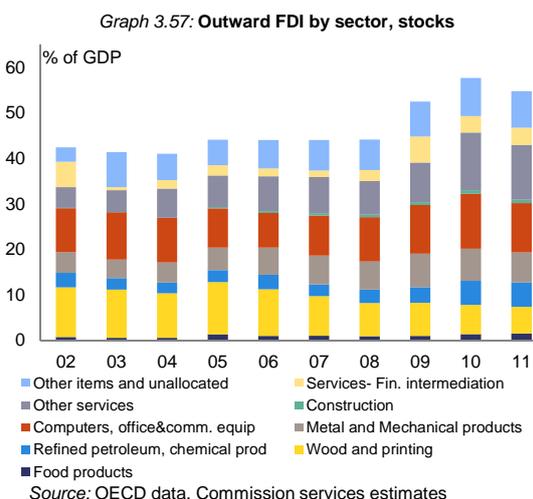
**Non-price competitiveness seems to be hampered by a weakened capacity to invest and innovate, particularly in the non-tradable sectors.** As highlighted in the previous section, the deterioration in profit margins may have impeding companies' ability to invest and innovate. A breakdown of net investment on sectors shows that construction as well as professional and technical activities, public administration (included in 'other services' in Graph 3.55) registered the highest investment rates amongst sectors. Even in these areas, positive growth rates of investment were recorded only prior to the crisis followed by negative rates afterwards. In turn, investment dynamics in the Finnish manufacturing and complementary services (i.e. trade and transport) trailed behind the developments in non-tradables, partly reflecting relatively lower returns in tradables versus non-tradables. Although the investment gap to tradable sector contracted somewhat, relatively unfavourable investment rates in manufacturing suggest that a significant reallocation towards tradable sector was not yet in sight as of 2011 (Graph 3.56).



**While domestic investment is sluggish, Finnish companies are increasingly investing abroad for efficiency and market seeking purposes.** At the end of 2012, the net FDI position in Finland was about 22% of GDP. While this is still lower than e.g. in Netherlands (48% of GDP) and Denmark (32% of GDP), the stock of direct investment abroad rose from 44% of GDP in 2006 to 60% of GDP in 2012. Outward FDI is concentrated in traditional industries (Graph 3.57). Notably, Finnish companies continued to invest abroad throughout the crisis, with even larger shares being directed in the traditional sectors- ICT, metal and machinery production industries. Outward FDI in the pulp and paper industry peaked in 2005-06 and slightly declined afterwards, although it remained significant. Overall, the investments abroad are dominated by the traditional manufacturing sectors

in which the Finnish economy is specialized and has a positive comparative advantage. While it is rather difficult to disentangle to what extent FDI flows went into horizontal (market seeking) or vertical (efficiency seeking) investment components, the significant investment volume and the observed decline in the traditional industries' exports point to a non-negligible vertical investment share. Similarly, the expanding outward FDI in services might reflect increased investment abroad linked to outsourcing of auxiliary activities (business services) as many activities that were earlier handled by domestic companies themselves, such as logistics, have been outsourced.

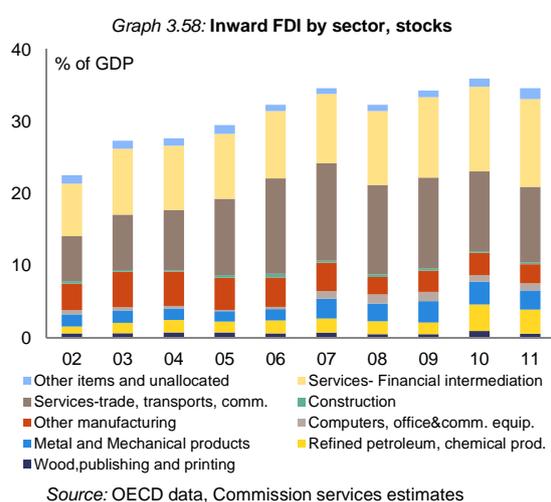
**In turn, recently Finland has not been able to attract significant foreign FDI.** The stock of FDI in Finland increased marginally from low levels (from 35% to 38% of GDP over 2007-12) while in Sweden it expanded by about 9 pps. to 68% of GDP in 2012. However, the stock of FDI in Germany and Netherlands remained broadly constant while it decreased in Denmark over the same period. More importantly, inward FDI in the Finnish manufacturing remains very low (about 10% of GDP) whereas financial intermediation dominates the services component (Graph 3.58).



### Box 3.7: GOVERNMENT SUPPORT FOR BUSINESS DEVELOPMENT AND R&D IN FINLAND

A number of tax policy measures to support business development, innovation and R&D have already been implemented or are in the pipeline: lowering the corporate tax rate to 20% from 2014, corporate R&D tax incentive applied in 2013-14 and tax incentive for business angels applied in 2013-15. New measures are under development on activating commercial capital market, launching Tekes Venture Capital in 2014, increasing lending and export credit capacity through Finnvera and launching the risk financing programme 2013-20. Currently, there are many government agencies and public programmes dedicated to supporting start-ups and SMEs as well as R&D in Finland. Some of the most important public agencies include TEKES (providing support for research activities, innovation and internationalization aiming to foster a more entrepreneurial and risk-taking attitude), Finnvera (credit guarantee and lending agency, financing start-ups and exports) and SITRA (providing business support and venture capital funding).

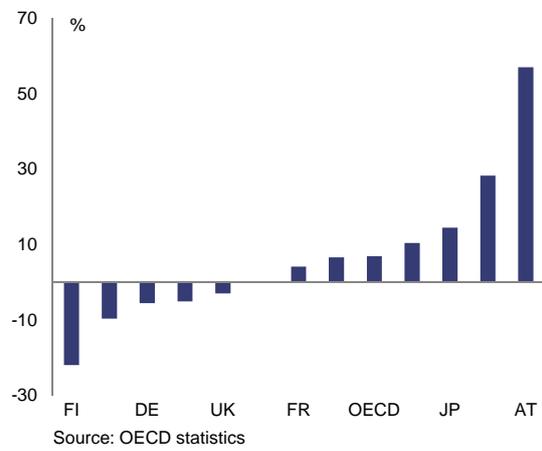
Although the authorities in partnership with the private sector set up a comprehensive support system for business development, encouraging entrepreneurship and innovation, various reviews (e.g. OECD 2012) point to significant overlaps in government agencies, particularly in venture capital activities. In this respect, public venture capital instruments seem to create less value added than their private competitors, while operating costs appear significant. This might be linked to difficulties in identifying the most relevant projects to receive funding as well as the significant development of private capital venture entities. More generally, OECD (2012) finds that effects of various public funding programmes on firms' growth are unsatisfactory with little evidence of a lasting impact on employment and productivity. While analysing firm entry rates (high in Finland) and productivity growth, the study also concludes that incentives for firm growth and businesses that create large positive externalities (including R&D spillovers) rather than entry firms (start-ups) should be enhanced to increase productivity. The tax system also provides incentives for entry firms and self-employment, as closely held companies are taxed less than widely held ones (OECD 2012).



GDP against 1.9% in Germany in 2012), R&D outlays are very much concentrated in the ICT sector. In terms of innovation output, the decrease in Finnish triadic patents over the last decade points to less impressive results (see Graph 3.59). This is also reflected in the 2013 Innovation Union Scoreboard, where Finland's score is low on SMEs introducing product or process innovations and marketing or organisational innovations. Notwithstanding the measures already adopted or proposed by the government in the area of R&D, and whose positive effects depend on their swift implementation, the significant decline of the Finnish ICT sector brings concerns about the future path of R&D investment and total factor productivity.

**Although Finland's R&D spending is the highest in the EU, it is also less efficient in terms of transferring research results into practice.** Finland's high level of spending in R&D has been driven to a large extent by the private sector, whereas government related spending is more modest. While the overall level of R&D expenditures in the private sector is higher in Finland than in other developed countries (2.4% of

Graph 3.59: Growth in triadic patents over 1999-2010, selected countries





## 4. POLICY CHALLENGES

The analysis in sections 2 and 3 indicates that factors underlying macroeconomic potential growth and particularly in the areas of export performance and competitiveness are among the main challenges in Finland.

It should be recalled that these challenges were already identified under the MIP in the first and second IDR and relevant policy responses were reflected and integrated in the country-specific recommendations issued for Finland in July 2013. The assessment of progress in the implementation of those recommendations will take place in the context of the assessment of the Finnish national reform programme and stability programme under the European Semester. Against this background, this section discusses different avenues that could be envisaged to address the challenge of improving growth, export performance and competitiveness.

*Concerning the challenge of improving competitiveness a number of different avenues can be considered:*

**Cost competitiveness and labour costs:** The analysis in this IDR has highlighted that the recent stabilisation of the external balance does not take away the concerns on subdued export performance. Increasing specialisation in cost-sensitive intermediate products makes labour costs a prominent issue for Finland's competitiveness. Higher dynamics of productivity-adjusted wages compared to peers since the onset of the crisis is a significant element with regard to deteriorating competitiveness in Finland. In particular, increasing labour costs and their pass through to prices in segments producing intermediate inputs for manufacturing have contributed to weakening the competitiveness of export industries. In addition, the current wage negotiation mechanism implies that those sectors with below-average productivity growth or exposed to less favourable export prices have come under additional pressure due to their relatively higher labour cost growth.

Since the publication of the 2013 IDR, the agreement reached by social partners to contain wage growth is a positive sign. Wages and unit labour costs are forecast to grow at a more moderate pace, while to correct the accumulated competitiveness gap to the main trading partners will take time. This adjustment will only

materialise gradually and will require relatively low wage growth and higher productivity as trading partners have been undertaking relevant labour market reforms while reducing their wage dynamics.

Given the expected slow recovery in the current juncture, it is important that policies also focus on developing the adjustment capacity of the labour market to absorb (external) shocks. An important factor is ensuring that wage setting mechanisms are responsive to sectoral productivity developments and allow differentiation among sectors based on relative strength. In particular, productivity developments could be considered explicitly in each wage negotiation round. Further efforts are still needed to better develop part-time employment and achieve productivity gains in public service provision to facilitate reallocation of workers to more productive sectors, thus ensuring an optimal labour allocation between dynamic and less dynamic sectors.

**Cost competitiveness more broadly and profitability:** The analysis above has also underlined the importance of other cost pressures for competitiveness, beyond wages.

First, high energy intensity and energy imports expose Finland to price shocks, affecting industries' competitiveness. Given that the overall high energy intensity stems from the dominance of energy-intensive industries, an improvement in the energy efficiency enhances the competitive position of the industrial sector by lowering the cost of inputs.

Second, low productivity and weak competitive pressures in services as well as compressed wage distribution lead to high prices, eroding both domestic welfare and external competitiveness. Higher prices of consumer goods and services than in the neighbouring countries point to a lack of competition in the retail sector and networking industries (energy, transport and postal services). Providing robust competition and deregulation would lower costs for companies, resulting in a lower price level and a lower cost level for intermediate inputs.

The above aspects amplified the financial difficulties of Finnish companies during the global

downturn and profit margins failed to rebound afterwards. A worsening of profitability in manufacturing limits its capacity and incentives to invest and create jobs. Restoring profitability in the exporting sector thus becomes a pre-condition for firms to increase investment in non-price competitiveness factors (such as innovation and products quality).

**Non-price competitiveness:** Recent sluggish productivity increases in Finland illustrate the importance of focusing on non-price competitiveness. Stagnating total factor productivity growth appears to be related not only to lack of competition but also to the failure of many Finnish firms to grow and become international players. A limited number of large exporting firms selling a narrow product range as well as the lower propensity of Finnish small companies to export weigh on trade performance. As costs and conditions for exporting to emerging markets are typically challenging, the export potential would be boosted by providing further tailored support for the internationalisation of smaller firms. Given the numerous government agencies and available schemes involved in financing of business development, a review of their effectiveness in view of further streamlining would also be useful. In addition, a review of size-dependent policies with lock-in effect in the areas of taxation and public funding for business development and R&D could also be explored with a view to provide incentives for firms to expand and align capital taxation across organisational forms.

Efforts need to be reinforced in particular on further support for clusters between multinationals and domestic innovative companies, as well as the further development of entrepreneurial education towards more risk-taking attitude. Efforts to diversify the business structure, in particular by accelerating the introduction of planned measures to broaden the innovation base remain important. Finland's high R&D intensity could be more effectively translated into the development of new products and creating high-productive jobs. The government funding for R&D could be targeted in a larger extent on enhancing the R&D spillovers.

It should be recalled that the country-specific recommendations from 2013 included the need to take further measures to attain cost savings in

public service provision. Efficiency gains in public services such as healthcare and education (through reducing the length of studies and speeding up graduation in higher education) would be most welcome. In addition, public sector accounts for over a third of total employment in Finland, there might be scope for further adjusting employment in this sector in line with productivity growth and reallocating workers to more productive sectors. Productivity growth would also attenuate the labour force decline due to ageing and the impact on labour supply. An increase in the effective and the statutory retirement age would result in a slower decline in the working age population as well as help curbing the cost pressure with pensions. In this context the activation of young people, long-term unemployed and older workers as well as an increase of the effective retirement age taking into account improved life expectancy are also important aspects.

*Concerning the challenges linked to the high level of private debt, a number of measures can be considered:*

**Addressing the risks from high private debt levels:** Although the current high private debt levels are not considered a major risk, the economy would benefit from measures to curb debt growth as the increase in household debt is followed by lower saving rates and a deterioration in the financial position of households. The tax deductibility of mortgage interest payments is gradually being phased out with a view to reduce incentives for taking on and holding debt. The recommendation by the Finnish Financial Supervisory Authority on a binding cap on loan-to-value ratios for mortgage loans is not yet implemented.

## REFERENCES

- Altomonte, C., di Mauro, F. and C. Osbat (2012), 'Going beyond labour costs: How and why 'structural' and micro-based factors can help explaining export performance?' CompNet Policy Brief No 1/2013.
- Bems, R. and R. C. Johnson (2012), 'Value-Added Exchange Rates', NBER Working Papers 18498.
- Benkovskis K. and J. Wörz (2012), 'Non-price competitiveness of exports from emerging countries', Bank of Finland, BOFIT Discussion Papers 19/2012.
- Benkovskis K. and J. Wörz (2013), 'What drives the market share changes? Price versus non-price factors', Bank of Finland, BOFIT Discussion Papers 18/2013.
- Bayoumi, T., Turunen, J. and R. T. Harmsen (2011), 'Euro Area Export Performance and Competitiveness', IMF Working Papers 11/140.
- Bayoumi, T., Saito, M. and J. Turunen (2013), 'Measuring Competitiveness: Trade in Goods or Tasks?', IMF Working Papers 13/100.
- Darvas, Z. (2012), 'Compositional effects on productivity, labour cost and export adjustments', Bruegel Policy Contribution 2012/11.
- ECB (2012), 'Competitiveness and external imbalances within the euro area', A team of the Working Group on Econometric Modelling of the European System of Central Banks, ECB Occasional Paper Series No 139 / December 2012.
- European Commission (2013), 'Innovation Union Scoreboard 2013', 2013.
- European Commission (2013), 'Product Market Review 2013: Financing the real economy', European Economy 8/2013.
- European Commission (2012), 'Current Account Surpluses in the EU', European Economy 9/2012.
- Gaulier, G. and V. Vicard (2012), 'The signatures of euro area imbalances', Mimeo.
- Kajanoja, L. (2012), 'Finland's competitiveness and its measurement', Bank of Finland Bulletin 5/2012.
- Kivisto, J. (2013), 'Sector-specific labour cost developments from the perspective of the industrial sector's cost structure', Bank of Finland Bulletin 3/2013.
- Kumar U. and J. Felipe (2011), 'Unit labor costs in the Eurozone: the competitiveness debate again', Levy Institute Working Paper, No. 651.
- Mahy, B., F. Rycx, and M. Volral (2011), 'Does wage dispersion make all firms productive?', Scottish Journal of Political Economy, Scottish Economic Society, vol. 58(4).
- OECD (2013), OECD Employment Outlook 2013, OECD Publishing.
- OECD (2012), 'Restarting the growth engine', in OECD Economic Surveys: Finland 2012, OECD Publishing.
- OECD (2013), 'Finland: Fit for the Future', OECD February 2013.
- Osbat, C., Özyurt, S. and T. Karlsson (2012), 'Trade balance contributions of price and non-price factors: a cross-country analysis', CompNet Workshop, Frankfurt, 10-11 December 2012.
- Salto, M. and A. Turrini (2010), 'Comparing alternative methodologies for real exchange rate assessment', European Economy. Economic Papers. 427. September 2010.
- Rodríguez, A., Pérez-Quirós, G. and R. Segura-Cayuela (2012), 'Competitiveness indicators: The importance of an efficient allocation of resources', Banco de España Economic Bulletin. Jan 2012.
- Timmer, M., Los, B., Stehrer, R. and G. De Vries (2013), 'Fragmentation, Incomes and Jobs. An analysis of European competitiveness. Paper presented at the CompNet conference in Washington, April 2013.
- The World Bank, Doing business, 2013 (<http://www.doingbusiness.org>).
- World Economic Forum (2013), 'The global competitiveness report 2013-2014'.



## OCCASIONAL PAPERS

**Occasional Papers can be accessed and downloaded free of charge at the following address:**

[http://ec.europa.eu/economy\\_finance/publications/occasional\\_paper/index\\_en.htm](http://ec.europa.eu/economy_finance/publications/occasional_paper/index_en.htm).

**Alternatively, hard copies may be ordered via the “Print-on-demand” service offered by the EU Bookshop:** <http://bookshop.europa.eu>.

- No. 1 The Western Balkans in transition (January 2003)
- No. 2 Economic Review of EU Mediterranean Partners (January 2003)
- No. 3 Annual Report on structural reforms 2003, by Economic Policy Committee (EPC) (April 2003)
- No. 4 Key structural challenges in the acceding countries: the integration of the acceding countries into the Community’s economic policy co-ordination processes; by EPC (July 2003)
- No. 5 The Western Balkans in transition (January 2004)
- No. 6 Economic Review of EU Mediterranean Partners (March 2004)
- No. 7 Annual report on structural reforms 2004 “reinforcing implementation”, by Economic Policy Committee (EPC) (March 2004)
- No. 8 The Portuguese economy after the boom (April 2004)
- No. 9 Country Study: Denmark – Making work pay, getting more people into work (October 2004)
- No. 10 Rapid loan growth in Russia: A lending boom or a permanent financial deepening? (November 2004)
- No. 11 The structural challenges facing the candidate countries (Bulgaria, Romania, Turkey) – A comparative perspective (EPC) (December 2004)
- No. 12 Annual report on structural reforms 2005 “Increasing growth and employment” (EPC) (January 2005)
- No. 13 Towards economic and monetary union (EMU) – A chronology of major decisions, recommendations or declarations in this field (February 2005)
- No. 14 Country Study: Spain in EMU: a virtuous long-lasting cycle? (February 2005)
- No. 15 Improving the Stability and Growth Pact: the Commission’s three pillar approach (March 2005)
- No. 16 The economic costs of non-Lisbon. A survey of the literature on the economic impact of Lisbon-type reforms (March 2005)
- No. 17 Economic Review of EU Mediterranean Partners: 10 years of Barcelona Process: taking stock of economic progress (April 2005)
- No. 18 European Neighbourhood Policy: Economic Review of ENP Countries (April 2005)
- No. 19 The 2005 EPC projection of age-related expenditure: agreed underlying assumptions and projection methodologies (EPC) (November 2005)
- No. 20 Consumption, investment and saving in the EU: an assessment (November 2005)
- No. 21 Responding to the challenges of globalisation (EPC) (December 2005)
- No. 22 Report on the Lisbon National Reform Programmes 2005 (EPC) (January 2006)

- No. 23 The Legal Framework for the Enlargement of the Euro Area (April 2006)
- No. 24 Enlargement, two years after: an economic evaluation (May 2006)
- No. 25 European Neighbourhood Policy: Economic Review of ENP Countries (June 2006)
- No. 26 What do the sources and uses of funds tell us about credit growth in Central and Eastern Europe? (October 2006)
- No. 27 Growth and competitiveness in the Polish economy: the road to real convergence (November 2006)
- No. 28 Country Study: Raising Germany's Growth Potential (January 2007)
- No. 29 Growth, risks and governance: the role of the financial sector in south eastern Europe (April 2007)
- No. 30 European Neighbourhood Policy: Economic Review of EU Neighbour Countries (June 2007)
- No. 31 2006 Pre-accession Economic Programmes of candidate countries (June 2007)
- No. 32 2006 Economic and Fiscal Programmes of potential candidate countries (June 2007)
- No. 33 Main results of the 2007 fiscal notifications presented by the candidates countries (June 2007)
- No. 34 Guiding Principles for Product Market and Sector Monitoring (June 2007)
- No. 35 Pensions schemes and projection models in EU-25 Member States (EPC) (November 2007)
- No. 36 Progress towards meeting the economic criteria for accession: the assessments of the 2007 Progress Reports (December 2007)
- No. 37 The quality of public finances - Findings of the Economic Policy Committee-Working Group (2004-2007) edited by Servaas Deroose (Directorate-General Economic and Financial Affairs) and Dr. Christian Kastrop (President of the Economic Policy Committee of the EU. Chairman of the EPC-Working Group "Quality of Public Finances" (2004-2008). Deputy Director General "Public Finance and Economic Affairs", Federal Ministry of Finance, Germany) (March 2008)
- No. 38 2007 Economic and Fiscal Programmes of potential candidate countries: EU Commission's assessments (July 2008)
- No. 39 2007 Pre-accession Economic Programmes of candidate countries: EU Commission assessments (July 2008)
- No. 40 European neighbourhood policy: Economic review of EU neighbour countries (August 2008)
- No. 41 The LIME assessment framework (LAF): a methodological tool to compare, in the context of the Lisbon Strategy, the performance of EU Member States in terms of GDP and in terms of twenty policy areas affecting growth (October 2008)
- No. 42 2008 Fiscal notifications of candidate countries: overview and assessment (November 2008)
- No. 43 Recent reforms of the tax and benefit systems in the framework of flexicurity by Giuseppe Carone, Klara Stovicek, Fabiana Pierini and Etienne Sail (European Commission, Directorate-General for Economic and Financial Affairs) (February 2009)
- No. 44 Progress towards meeting the economic criteria for accession: the assessments of the 2008 Progress Reports (European Commission, Directorate-General for Economic and Financial Affairs) (March 2009)

- No. 45 The quality of public finances and economic growth: Proceedings to the annual Workshop on public finances (28 November 2008) edited by Salvador Barrios, Lucio Pench and Andrea Schaechter (European Commission, Directorate-General for Economic and Financial Affairs) (March 2009)
- No. 46 The Western Balkans in transition (European Commission, Directorate-General for Economic and Financial Affairs) (May 2009)
- No. 47 The functioning of the food supply chain and its effect on food prices in the European Union by Lina Bukeviciute, Adriaan Dierx and Fabienne Ilzkovitz (European Commission, Directorate-General for Economic and Financial Affairs) (May 2009)
- No. 48 Impact of the global crisis on neighbouring countries of the EU by European Commission, Directorate-General for Economic and Financial Affairs (June 2009)
- No. 49 Impact of the current economic and financial crisis on potential output (European Commission, Directorate-General for Economic and Financial Affairs) (June 2009)
- No. 50 What drives inflation in the New EU Member States? : Proceedings to the workshop held on 22 October 2008 (European Commission, Directorate-General for Economic and Financial Affairs) (July 2009)
- No. 51 The EU's response to support the real economy during the economic crisis: an overview of Member States' recovery measures by Giuseppe Carone, Nicola Curci, Fabiana Pierini, Luis García Lombardero, Anita Halasz, Ariane Labat, Mercedes de Miguel Cabeza, Dominique Simonis, Emmanuelle Maincent and Markus Schulte (European Commission, Directorate-General for Economic and Financial Affairs) (July 2009)
- No. 52 2009 Economic and Fiscal Programmes of potential candidate countries: EU Commission's assessments (European Commission, Directorate-General for Economic and Financial Affairs) (July 2009)
- No. 53 Economic performance and competition in services in the euro area: Policy lessons in times of crisis by Josefa Monteagudo and Adriaan Dierx (European Commission, Directorate-General for Economic and Financial Affairs) (September 2009)
- No. 54 An analysis of the efficiency of public spending and national policies in the area of R&D by A. Conte, P. Schweizer, A. Dierx and F. Ilzkovitz (European Commission, Directorate-General for Economic and Financial Affairs) (September 2009)
- No. 55 2009 Pre-Accession Economic Programmes of candidate countries: EU Commission's assessments (European Commission, Directorate-General for Economic and Financial Affairs) (October 2009)
- No. 56 Pension schemes and pension projections in the EU-27 Member States - 2008-2060 by the Economic Policy Committee (AWG) and Directorate-General Economic and Financial Affairs (October 2009)
- No. 57 Progress towards meeting the economic criteria for accession: the assessments of the 2009 Progress Reports (European Commission, Directorate-General for Economic and Financial Affairs) (November 2009)
- No. 58 Cross-country study: Economic policy challenges in the Baltics (European Commission, Directorate-General for Economic and Financial Affairs) (February 2010)
- No. 59 The EU's neighbouring economies: emerging from the global crisis (European Commission, Directorate-General for Economic and Financial Affairs) (April 2010)
- No. 60 Labour Markets Performance and Migration Flows in Arab Mediterranean Countries: Determinants and Effects — Volume 1: Final Report & Thematic Background Papers; Volume 2: National Background Papers Maghreb (Morocco, Algeria, Tunisia); Volume 3: National Background Papers Mashreq (Egypt, Palestine, Jordan, Lebanon, Syria) by Philippe Fargues & Iván Martín (European Commission, Directorate-General for Economic and Financial Affairs) (April 2010)
- No. 61 The Economic Adjustment Programme for Greece (European Commission, Directorate-General for Economic and Financial Affairs) (May 2010)

- No. 62 The pre-accession economies in the global crisis: from exogenous to endogenous growth? (European Commission, Directorate-General for Economic and Financial Affairs) (June 2010)
- No. 63 2010 Economic and Fiscal Programmes of potential candidate countries: EU Commission's assessments (European Commission, Directorate-General for Economic and Financial Affairs) (June 2010)
- No. 64 Short time working arrangements as response to cyclical fluctuations, a joint paper prepared in collaboration by Directorate-General for Economic and Financial Affairs and Directorate General for Employment, Social Affairs and Equal Opportunities (June 2010)
- No. 65 Macro structural bottlenecks to growth in EU Member States (European Commission, Directorate-General for Economic and Financial Affairs) (July 2010)
- No. 66 External Imbalances and Public Finances in the EU edited by Salvador Barrios, Servaas Deroose, Sven Langedijk and Lucio Pench (European Commission, Directorate-General for Economic and Financial Affairs) (August 2010)
- No. 67 National fiscal governance reforms across EU Member States. Analysis of the information contained in the 2009-2010 Stability and Convergence Programmes by Joaquim Ayuso-i-Casals (European Commission, Directorate-General for Economic and Financial Affairs) (August 2010)
- No. 68 The Economic Adjustment Programme for Greece: First review – summer 2010 (European Commission, Directorate-General for Economic and Financial Affairs) (August 2010)
- No. 69 2010 Pre-accession Economic Programmes of candidate countries: EU Commission assessments (European Commission, Directorate-General for Economic and Financial Affairs) (September 2010)
- No. 70 Efficiency and effectiveness of public expenditure on tertiary education in the EU (European Commission, Directorate-General for Economic and Financial Affairs and Economic Policy Committee (Quality of Public Finances) (November 2010)
- No. 71 Progress and key challenges in the delivery of adequate and sustainable pensions in Europe (Joint Report by the Economic Policy Committee (Ageing Working Group), the Social Protection Committee (Indicators Sub-Group) and the Commission services (DG for Economic and Financial Affairs and DG Employment, Social Affairs and Equal Opportunities), (November 2010)
- No. 72 The Economic Adjustment Programme for Greece – Second review – autumn 2010 (European Commission, Directorate-General for Economic and Financial Affairs) (December 2010)
- No. 73 Progress towards meeting the economic criteria for accession: the assessments of the 2010 Progress Reports and the Opinions (European Commission, Directorate-General for Economic and Financial Affairs) (December 2010)
- No. 74 Joint Report on Health Systems prepared by the European Commission and the Economic Policy Committee (AWG) (December 2010)
- No. 75 Capital flows to converging European economies – from boom to drought and beyond (European Commission, Directorate-General for Economic and Financial Affairs) (February 2011)
- No. 76 The Economic Adjustment Programme for Ireland (European Commission, Directorate-General for Economic and Financial Affairs) (February 2011)
- No. 77 The Economic Adjustment Programme for Greece Third review – winter 2011 (European Commission, Directorate-General for Economic and Financial Affairs) (February 2011)

- No. 78 The Economic Adjustment Programme for Ireland—Spring 2011 Review (European Commission, Directorate-General for Economic and Financial Affairs) (May 2011)
- No. 79 The Economic Adjustment Programme for Portugal (European Commission, Directorate-General for Economic and Financial Affairs) (June 2011)
- No. 80 2011 Pre-accession Economic Programmes of candidate countries: EU Commission assessments (European Commission, Directorate-General for Economic and Financial Affairs) (June 2011)
- No. 81 2011 Economic and Fiscal Programmes of potential candidate countries: EU Commission's assessments (European Commission, Directorate-General for Economic and Financial Affairs) (June 2011)
- No. 82 The Economic Adjustment Programme for Greece – Fourth review – spring 2011 (European Commission, Directorate-General for Economic and Financial Affairs) (July 2011)
- No. 83 The Economic Adjustment Programme for Portugal - First Review - Summer 2011 (European Commission, Directorate-General for Economic and Financial Affairs) (September 2011)
- No. 84 Economic Adjustment Programme for Ireland—Summer 2011 Review (European Commission, Directorate-General for Economic and Financial Affairs) (September 2011)
- No. 85 Progress towards meeting the economic criteria for accession: the assessments of the 2011 Progress Reports and the Opinion (Serbia) (European Commission, Directorate-General for Economic and Financial Affairs) (December 2011)
- No. 86 The EU's neighbouring economies: coping with new challenges (European Commission, Directorate-General for Economic and Financial Affairs) (November 2011)
- No. 87 The Economic Adjustment Programme for Greece: Fifth review – October 2011 (European Commission, Directorate-General for Economic and Financial Affairs) (November 2011)
- No. 88 Economic Adjustment Programme for Ireland — autumn 2011 Review (European Commission, Directorate-General for Economic and Financial Affairs) (December 2011)
- No. 89 The Economic Adjustment Programme for Portugal - Second review - autumn 2011 (European Commission, Directorate-General for Economic and Financial Affairs) (December 2011)
- No. 90 The Balance of Payments Programme for Romania. First Review - autumn 2011 (European Commission, Directorate-General for Economic and Financial Affairs) (December 2011)
- No. 91 Fiscal frameworks across Member States: Commission services' country fiches from the 2011 EPC peer review (European Commission, Directorate-General for Economic and Financial Affairs) (February 2012)
- No. 92 Scoreboard for the Surveillance of Macroeconomic Imbalances (European Commission, Directorate-General for Economic and Financial Affairs) (February 2012)
- No. 93 Economic Adjustment Programme for Ireland — Winter 2011 Review (European Commission, Directorate-General for Economic and Financial Affairs) (March 2012)
- No.94 The Second Economic Adjustment Programme for Greece — March 2012 (European Commission, Directorate-General for Economic and Financial Affairs) (March 2012)
- No. 95 The Economic Adjustment Programme for Portugal — Third review. Winter 2011/2012 (European Commission, Directorate-General for Economic and Financial Affairs) (April 2012)

- No. 96 Economic Adjustment Programme for Ireland — Spring 2012 Review (European Commission, Directorate-General for Economic and Financial Affairs) (June 2012)
- No. 97 2012 Economic and Fiscal Programmes of Albania, Bosnia and Herzegovina: EU Commission's overview and country assessments (European Commission, Directorate-General for Economic and Financial Affairs) (June 2012)
- No. 98 2012 Pre-accession Economic Programmes of Croatia, Iceland, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Turkey: EU Commission's overview and assessments (European Commission, Directorate-General for Economic and Financial Affairs) (June 2012)
- No. 99 Macroeconomic imbalances – Belgium (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 100 Macroeconomic imbalances – Bulgaria (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 101 Macroeconomic imbalances – Cyprus (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 102 Macroeconomic imbalances – Denmark (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 103 Macroeconomic imbalances – Spain (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 104 Macroeconomic imbalances – Finland (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 105 Macroeconomic imbalances – France (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 106 Macroeconomic imbalances – Hungary (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 107 Macroeconomic imbalances – Italy (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 108 Macroeconomic imbalances – Sweden (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 109 Macroeconomic imbalances – Slovenia (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 110 Macroeconomic imbalances – United Kingdom (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 111 The Economic Adjustment Programme for Portugal. Fourth review – Spring 2012 (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 112 Measuring the macroeconomic resilience of industrial sectors in the EU and assessing the role of product market regulations (Fabio Canova, Leonor Coutinho, Zenon Kontolemis, Universitat Pompeu Fabra and Europrism Research (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 113 Fiscal Frameworks in the European Union: May 2012 update on priority countries (Addendum to Occasional Papers No.91) (European Commission, Directorate-General for Economic and Financial Affairs) (July 2012)
- No. 114 Improving tax governance in EU Member States: Criteria for successful policies by Jonas Jensen and Florian Wöhlbier (European Commission, Directorate-General for Economic and Financial Affairs) (August 2012)

- No. 115 Economic Adjustment Programme for Ireland — Summer 2012 Review (European Commission, Directorate-General for Economic and Financial Affairs) (September 2012)
- No. 116 The Balance of Payments Programme for Romania. First Review - Spring 2012 (European Commission, Directorate-General for Economic and Financial Affairs) (October 2012)
- No. 117 The Economic Adjustment Programme for Portugal. Fifth review – Summer 2012 (European Commission, Directorate-General for Economic and Financial Affairs) (October 2012)
- No. 118 The Financial Sector Adjustment Programme for Spain (European Commission, Directorate-General for Economic and Financial Affairs) (October 2012)
- No. 119 Possible reforms of real estate taxation: Criteria for successful policies (European Commission, Directorate-General for Economic and Financial Affairs) (October 2012)
- No. 120 EU Balance-of-Payments assistance for Latvia: Foundations of success (European Commission, Directorate-General for Economic and Financial Affairs) (November 2012)
- No. 121 Financial Assistance Programme for the Recapitalisation of Financial Institutions in Spain. First review - Autumn 2012 (European Commission, Directorate-General for Economic and Financial Affairs) (November 2012)
- No. 122 Progress towards meeting the economic criteria for EU accession: the EU Commission's 2012 assessments (European Commission, Directorate-General for Economic and Financial Affairs) (December 2012)
- No. 123 The Second Economic Adjustment Programme for Greece. First Review - December 2012 (European Commission, Directorate-General for Economic and Financial Affairs) (December 2012)
- No. 124 The Economic Adjustment Programme for Portugal. Sixth Review – Autumn 2012 (European Commission, Directorate-General for Economic and Financial Affairs) (December 2012)
- No. 125 The Quality of Public Expenditures in the EU (European Commission, Directorate-General for Economic and Financial Affairs) (December 2012)
- No. 126 Financial Assistance Programme for the Recapitalisation of Financial Institutions in Spain. Update on Spain's compliance with the Programme - Winter 2013 (European Commission, Directorate-General for Economic and Financial Affairs) (January 2013)
- No. 127 Economic Adjustment Programme for Ireland — Autumn 2012 Review (European Commission, Directorate-General for Economic and Financial Affairs) (January 2013)
- No. 128 Interim Progress Report on the implementation of Council Directive 2011/85/EU on requirements for budgetary frameworks of the Member States. (European Commission, Directorate-General for Economic and Financial Affairs) (February 2013)
- No. 129 Market Functioning in Network Industries - Electronic Communications, Energy and Transport. (European Commission, Directorate General for Economic and Financial Affairs) (February 2013)
- No. 130 Financial Assistance Programme for the Recapitalisation of Financial Institutions in Spain. Second Review of the Programme - Spring 2013 (European Commission, Directorate General for Economic and Financial Affairs) (March 2013)
- No. 131 Economic Adjustment Programme for Ireland – Winter 2012 Review (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 132 Macroeconomic Imbalances – Bulgaria 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 133 Macroeconomic Imbalances – Denmark 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)

- No. 134 Macroeconomic Imbalances – Spain 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 135 Macroeconomic Imbalances – Finland 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 136 Macroeconomic Imbalances – France 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 137 Macroeconomic Imbalances – Hungary 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 138 Macroeconomic Imbalances – Italy 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 139 Macroeconomic Imbalances – Malta 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 140 Macroeconomic Imbalances – Netherlands 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 141 Macroeconomic Imbalances – Sweden 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 142 Macroeconomic Imbalances – Slovenia 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 143 Macroeconomic Imbalances – United Kingdom 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 144 Macroeconomic Imbalances – Belgium 2013 (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 145 Member States' Energy Dependence: An Indicator-Based Assessment (European Commission, Directorate General for Economic and Financial Affairs) (April 2013)
- No. 146 Benchmarks for the assessment of wage developments (European Commission, Directorate General for Economic and Financial Affairs) (May 2013)
- No. 147 The Two-Pack on economic governance: Establishing an EU framework for dealing with threats to financial stability in euro area member states (European Commission, Directorate General for Economic and Financial Affairs) (May 2013)
- No. 148 The Second Economic Adjustment Programme for Greece – Second Review – May 2013 (European Commission, Directorate General for Economic and Financial Affairs) (May 2013)
- No. 149 The Economic Adjustment Programme for Cyprus (European Commission, Directorate General for Economic and Financial Affairs) (May 2013)
- No. 150 Building a Strengthened Fiscal Framework in the European Union: A Guide to the Stability and Growth Pact (European Commission, Directorate General for Economic and Financial Affairs) (May 2013)
- No. 151 Vade mecum on the Stability and Growth Pact (European Commission, Directorate General for Economic and Financial Affairs) (May 2013)
- No. 152 The 2013 Stability and Convergence Programmes: An Overview (European Commission, Directorate General for Economic and Financial Affairs) (June 2013)
- No. 153 The Economic Adjustment Programme for Portugal. Seventh Review – Winter 2012/2013 (European Commission, Directorate General for Economic and Financial Affairs) (June 2013)

- No. 154 Economic Adjustment Programme for Ireland - Spring 2013 Review (European Commission, Directorate General for Economic and Financial Affairs) (July 2013)
- No. 155 Financial Assistance Programme for the Recapitalisation of Financial Institutions in Spain. Third Review of the Programme – Summer 2013 (European Commission, Directorate General for Economic and Financial Affairs) (July 2013)
- No. 156 Overall assessment of the two balance-of-payments assistance programmes for Romania, 2009-2013 (European Commission, Directorate General for Economic and Financial Affairs) (July 2013)
- No. 157 2013 Pre-accession Economic Programmes of Iceland, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Turkey: EU Commission's overview and assessments (European Commission, Directorate General for Economic and Financial Affairs) (July 2013)
- No. 158 2013 Economic and Fiscal Programmes of Albania and Bosnia and Herzegovina: EU Commission's overview and country assessments (European Commission, Directorate General for Economic and Financial Affairs) (July 2013)
- No. 159 The Second Economic Adjustment Programme for Greece - Third Review – July 2013 (European Commission, Directorate General for Economic and Financial Affairs) (July 2013)
- No. 160 The EU's neighbouring economies: managing policies in a challenging global environment (European Commission, Directorate General for Economic and Financial Affairs) (August 2013)
- No. 161 The Economic Adjustment Programme for Cyprus - First Review - Summer 2013 (European Commission, Directorate General for Economic and Financial Affairs) (September 2013)
- No. 162 Economic Adjustment Programme for Ireland — Summer 2013 Review (European Commission, Directorate General for Economic and Financial Affairs) (October 2013)
- No. 163 Financial Assistance Programme for the Recapitalisation of Financial Institutions in Spain. Fourth Review – Autumn 2013 (European Commission, Directorate General for Economic and Financial Affairs) (November 2013)
- No. 164 The Economic Adjustment Programme for Portugal — Eighth and Ninth Review (European Commission, Directorate General for Economic and Financial Affairs) (November 2013)
- No. 165 Romania: Balance-of-Payments Assistance Programme 2013-2015 (European Commission, Directorate General for Economic and Financial Affairs) (November 2013)
- No. 166 Progress towards meeting the economic criteria for EU accession: the EU Commission's 2013 assessments (European Commission, Directorate General for Economic and Financial Affairs) (December 2013)
- No. 167 Economic Adjustment Programme for Ireland — Autumn 2013 Review (European Commission, Directorate General for Economic and Financial Affairs) (December 2013)
- No. 168 Fiscal frameworks in the European Union: Commission services country factsheets for the Autumn 2013 Peer Review (European Commission, Directorate General for Economic and Financial Affairs) (December 2013)
- No. 169 The Economic Adjustment Programme for Cyprus – Second Review - Autumn 2013 (European Commission, Directorate General for Economic and Financial Affairs) (December 2013)
- No. 170 Financial Assistance Programme for the Recapitalisation of Financial Institutions in Spain. Fifth Review – Winter 2014 (European Commission, Directorate General for Economic and Financial Affairs) (January 2014)

- No. 171 The Economic Adjustment Programme for Portugal — Tenth Review (European Commission, Directorate General for Economic and Financial Affairs) (February 2014)
- No. 172 Macroeconomic Imbalances – Belgium 2014 (European Commission, Directorate General for Economic and Financial Affairs) (March 2014)
- No. 173 Macroeconomic Imbalances – Bulgaria 2014 (European Commission, Directorate General for Economic and Financial Affairs) (March 2014)
- No. 174 Macroeconomic Imbalances – Germany 2014 (European Commission, Directorate General for Economic and Financial Affairs) (March 2014)
- No. 175 Macroeconomic Imbalances – Denmark 2014 (European Commission, Directorate General for Economic and Financial Affairs) (March 2014)
- No. 176 Macroeconomic Imbalances – Spain 2014 (European Commission, Directorate General for Economic and Financial Affairs) (March 2014)
- No. 177 Macroeconomic Imbalances – Finland 2014 (European Commission, Directorate General for Economic and Financial Affairs) (March 2014)

## HOW TO OBTAIN EU PUBLICATIONS

### Free publications:

- one copy:  
via EU Bookshop (<http://bookshop.europa.eu>);
- more than one copy or posters/maps:  
from the European Union's representations ([http://ec.europa.eu/represent\\_en.htm](http://ec.europa.eu/represent_en.htm));  
from the delegations in non-EU countries ([http://eeas.europa.eu/delegations/index\\_en.htm](http://eeas.europa.eu/delegations/index_en.htm));  
by contacting the Europe Direct service ([http://europa.eu/europedirect/index\\_en.htm](http://europa.eu/europedirect/index_en.htm)) or  
calling 00 800 6 7 8 9 10 11 (freephone number from anywhere in the EU) (\*).

(\* The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

### Priced publications:

- via EU Bookshop (<http://bookshop.europa.eu>).

### Priced subscriptions:

- via one of the sales agents of the Publications Office of the European Union ([http://publications.europa.eu/others/agents/index\\_en.htm](http://publications.europa.eu/others/agents/index_en.htm)).

