



BANCO DE PORTUGAL
EUROSISTEMA



BACH WG 2015

Financial structure and profitability of European companies

Brussels, 2 December 2015

Workshop dealing with excessive corporate indebtedness



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Outline

1. Introducing Bank for the Accounts of Companies Harmonized (BACH)

2. Financial Structure and profitability of European Companies

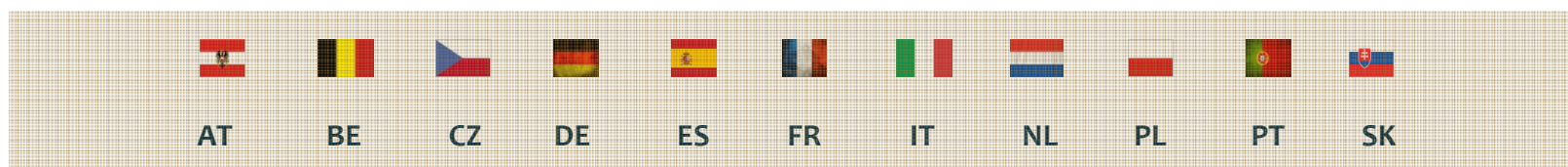
2.1 Financial structure

2.2 Financial and debt service

2.3 Profitability

2.4 Final remarks

- **Countries: 11 European countries**



- **Balance sheet items (41), income statement (22), items from the notes (3) and economic and financial ratios (29)**

- **Statistical measures:** coverages, absolute values, number of companies and employees, weighted mean and quartiles (first, median and third)

[Available at <https://www.bach.banque-france.fr?lang=en>]

- **Breakdown by size class and industry:**

Size class (4 size classes):

- **SME**
 - **Small**
 - **Medium**
- **Large**

NACE industry:

- **17 NACE sections**
- **80 NACE divisions**

- **Samples:** Variable and sliding samples

- **Time span:** from 2000 onward

[Available at <https://www.bach.banque-france.fr?lang=en>]

BACH is a database of aggregated and relatively harmonized accounting data

Under the aegis of the **European Committee of Central Balance Sheet Data Offices (ECCBSO)**, the BACH WG is responsible for maintaining and improving the BACH

Mission:

Comparable and high quality statistics of non-financial incorporated enterprises for European countries

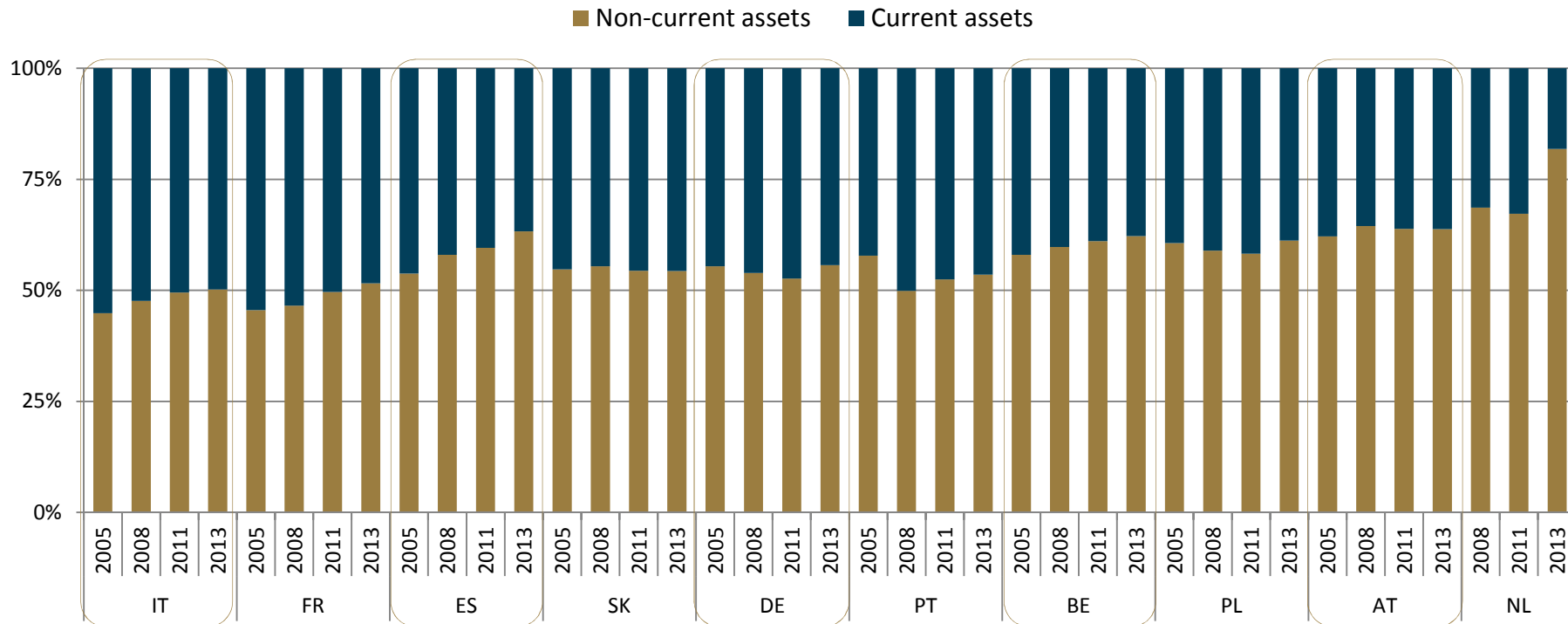
Tasks:

- Assess the **quality** of the database on an ongoing basis
- Continue the **harmonization** process allowing international comparisons
- Produce **cross-country comparisons**
- **Analyse** the behaviour of non-financial enterprises in terms of performance and financial position
- Improve the **coverage and timeliness**
- Update and improve its **userguide**



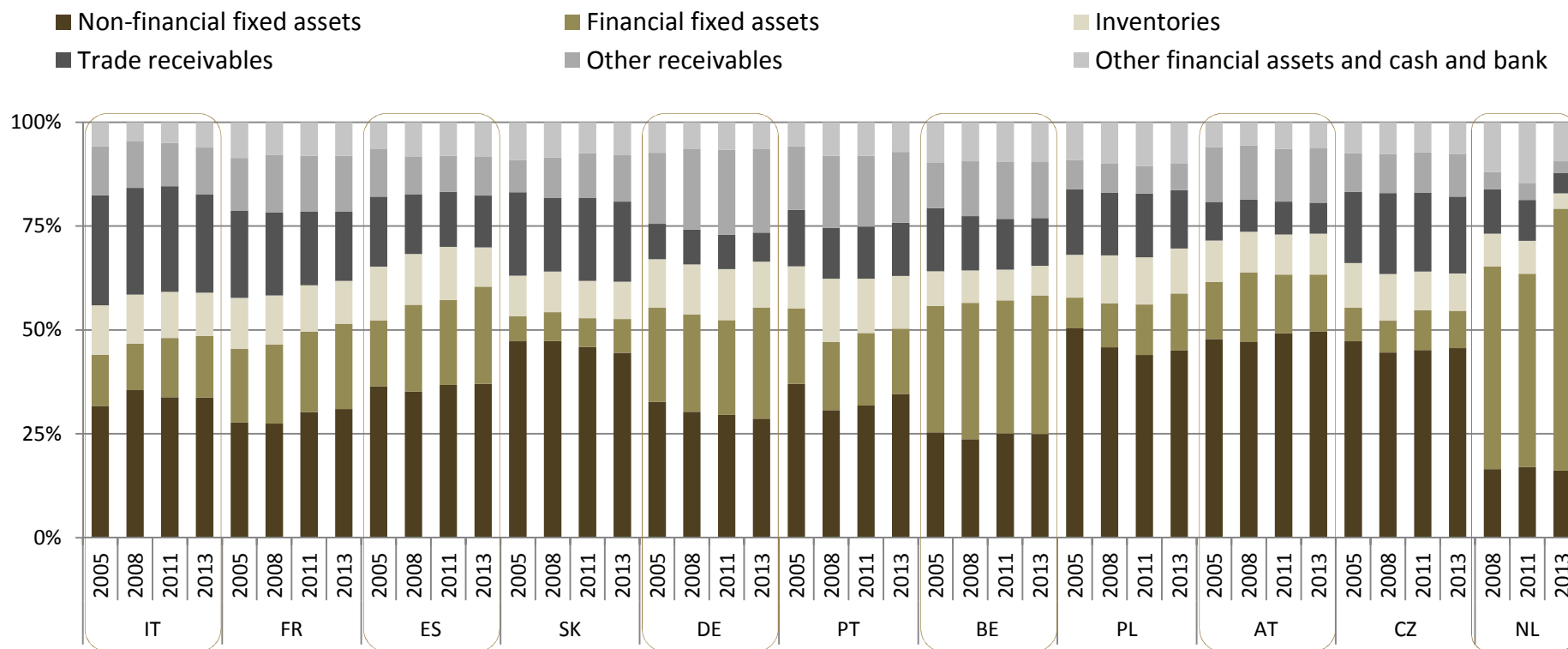
Financial structure

Chart 1: Assets by maturity (2005, 2008, 2011 and 2013, in % of total assets)



Non-current assets: most relevant component. Increasing weight of this component in % of total assets over the period.

Chart 2: Assets by nature (2005, 2008, 2011 and 2013, in % of total assets)



Different patterns. Non-financial fixed assets: most relevant component. Exceptions: BE and NL (financial assets).

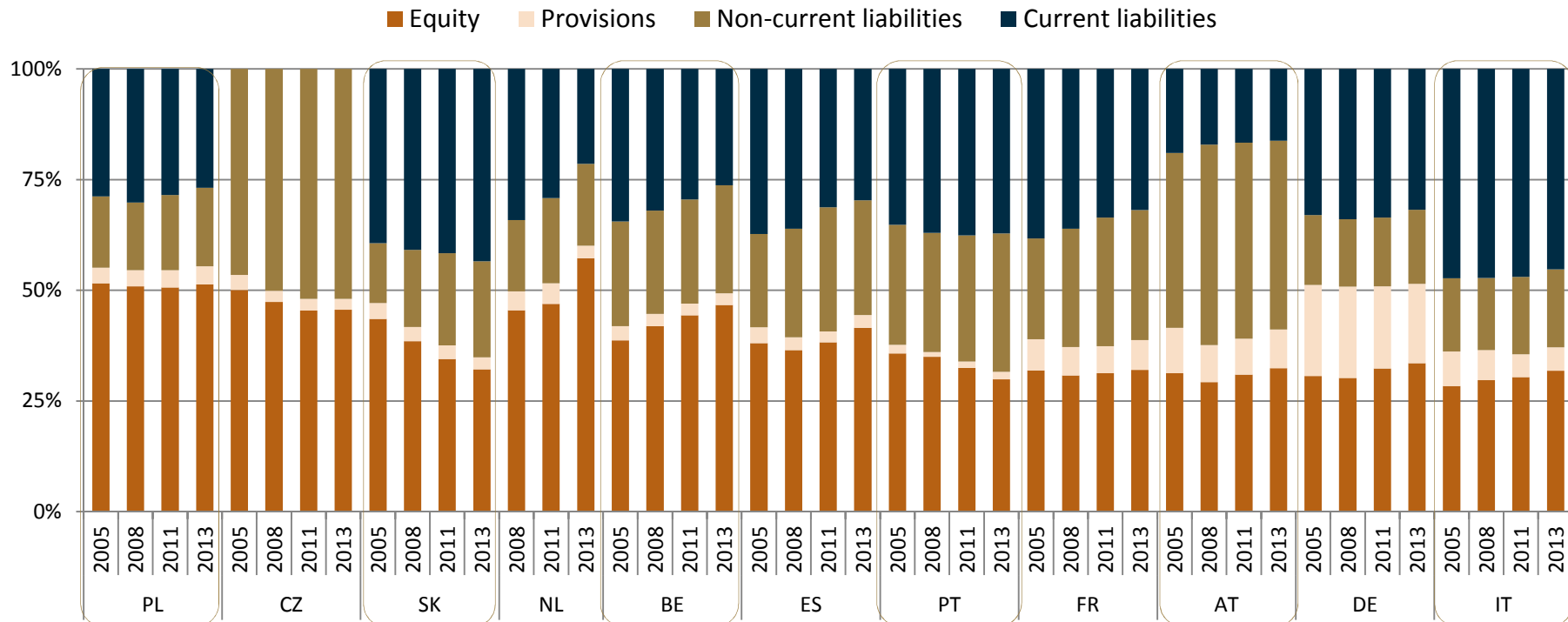
Trade receivables: most significant component of current assets. Exceptions: DE, PT, BE and AT.



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Financial structure

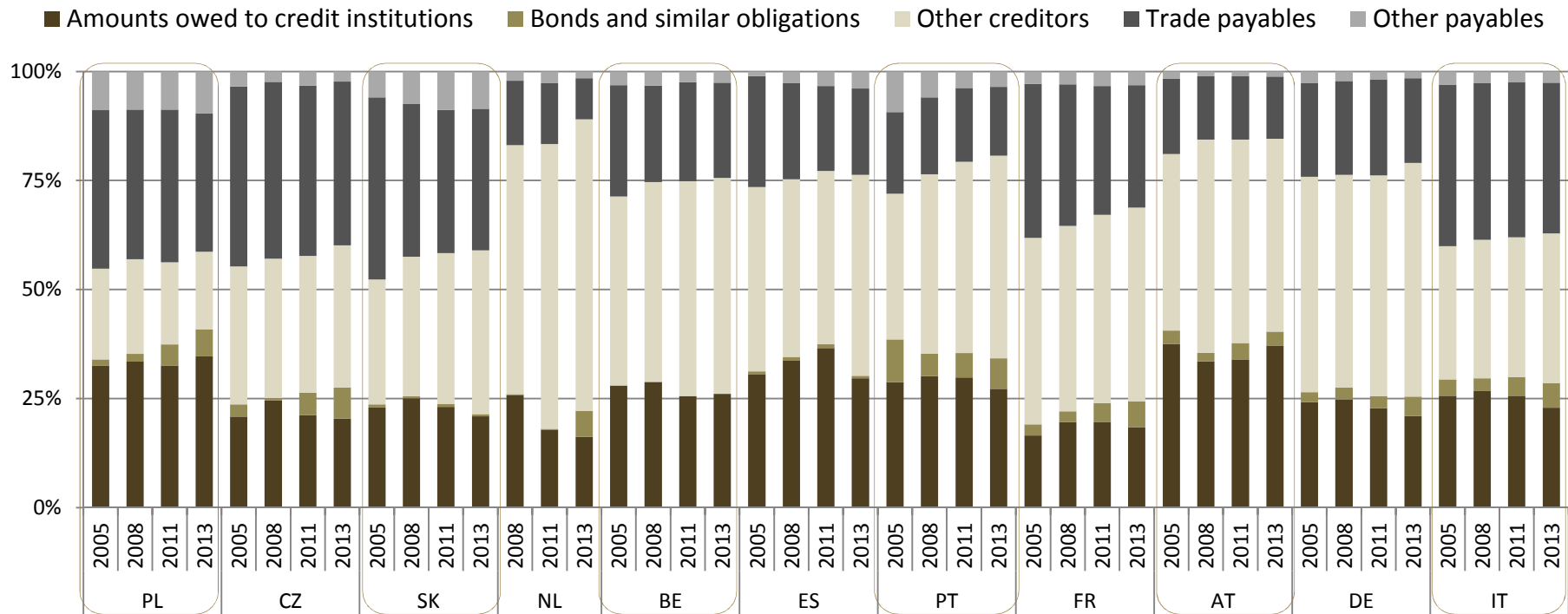
Chart 3: Equity, provisions and liabilities by maturity (2005, 2008, 2011 and 2013, in % of total assets)



In general, liabilities higher than equity. For most of the countries equity tended to decrease/remain stable over the period. Exceptions: NL, BE and ES.

Current liabilities higher than non-current liabilities.

Chart 4: Liabilities by nature (2005, 2008, 2011 and 2013, in % of total liabilities)

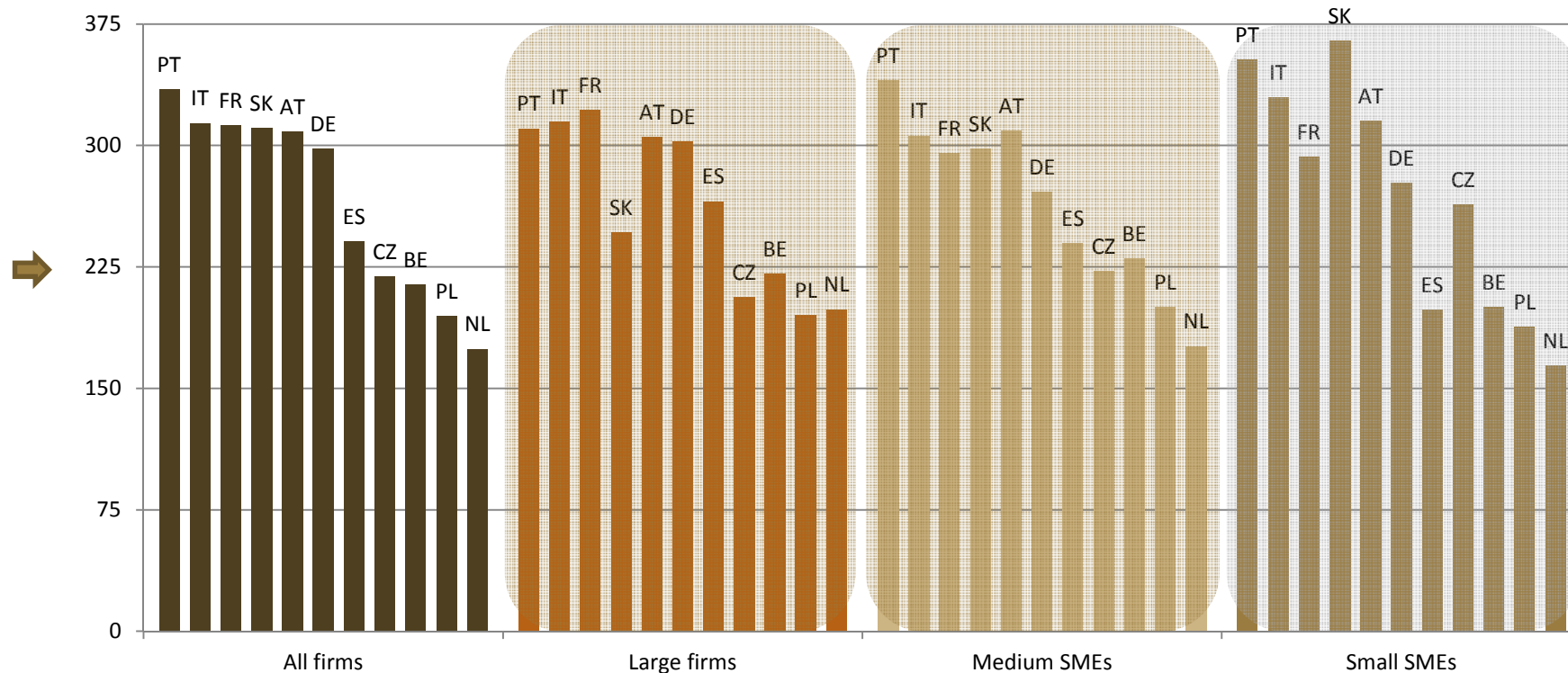


Other creditors more significant than amounts owed to credit institutions (PL as an exception).

The less significant financing instrument in financial debt: bonds and similar obligations.

However, trade payables higher than other creditors for some countries (PL, IT, SK ,CZ).

Chart 5: Assets to equity ratio, by enterprise size (2013, in %)

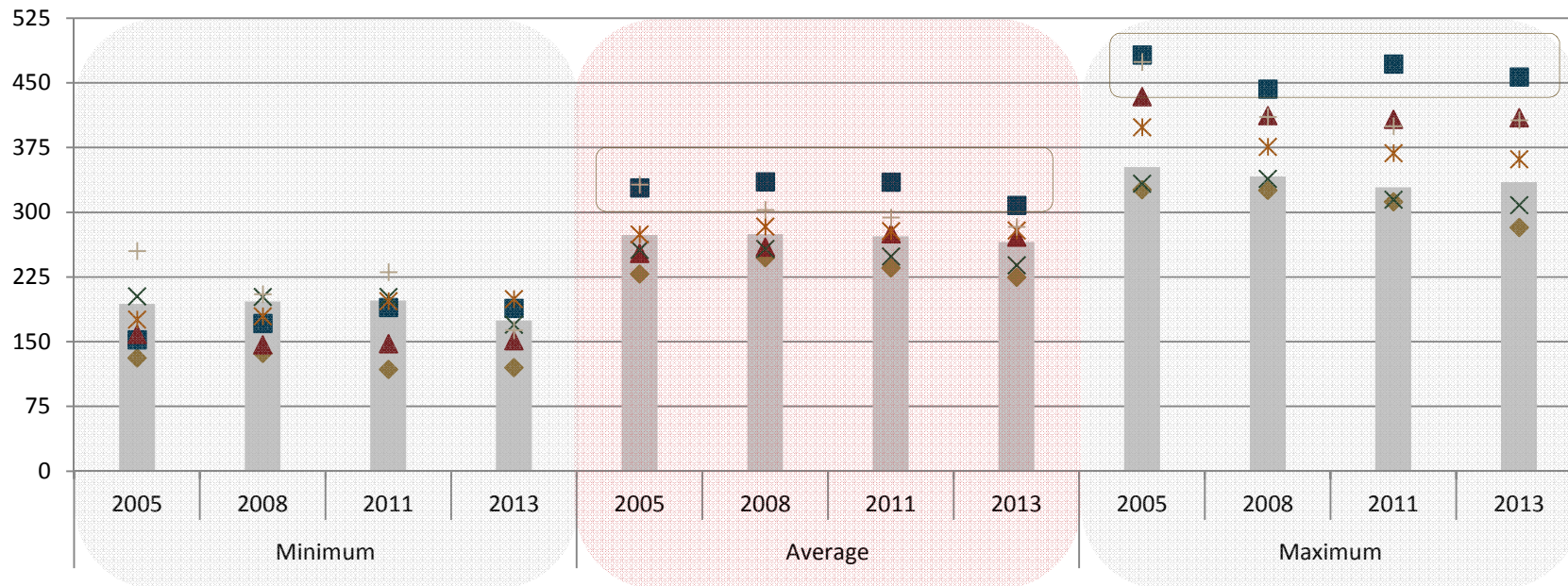


Levels of leverage above 225% for the majority of countries.

Large firms and medium SMEs more similar to all firms (SK as an exception).

Small SMEs more heterogeneous.

Chart 6: Assets to equity ratio, by sector (2005, 2008, 2011 and 2013, in %)




















TOTAL COMPANIES
 AGRICULTURE AND FISHERIES
 CONSTRUCTION AND REAL ESTATE
 ELECTRICITY AND WATER

 INDUSTRY
 OTHER SERVICES
 TRADE

Construction and real estate sector: the highest levels of leverage in both maximum and average figures.











Table 1: Interest on financial debt over EBITDA , by size (2013)


	Lower than or equal to 15%						15% < Financial pressure < 22,5%								Higher than or equal to 22,5%			
ALL SIZES	X		X	X	X	X		X	X	X		X				X		
LARGE COMPANIES	X		X	X	X	X		X	X	X		X				X		
MEDIUM SMEs	X	X			X	X			X	X	X	X	X			X		
SMALL SMEs			X				X	X	X	X			X	X		X	X	X
	AT	BE	FR	NL	PL	SK	AT	BE	DE	ES	FR	IT	NL	PL	IT	PT	SK	
																		


Large companies with lower levels of financial pressure, similar to all sizes.


They are followed respectively by medium SMEs and small SMEs.

Table 2: Interest on financial debt over EBITDA, by sector (2013)

	 AT	 BE	 DE	 ES	 FR	 IT	 NL	 PL	 PT	 SK
ALL SECTORS	Green	Grey	Grey	Grey	Green	Grey	Green	Green	Dark Red	Green
AGRICULTURE AND FISHERIES	Green	Grey	Green	Grey	Green	Dark Red	Grey	Green	Dark Red	Dark Red
CONSTRUCTION AND REAL ESTATE	Grey	Dark Red	Dark Red	Dark Red	Dark Red	Dark Red	Dark Red	Dark Red	Dark Red	Dark Red
ELETRICITY AND WATER	Dark Red	Dark Red	Grey	Grey	Grey	Grey	Green	Green	Dark Red	Green
INDUSTRY	Green	Grey	Grey	Green	Green	Green	Green	Green	Grey	Green
OTHER SERVICES	Green	Green	Grey	Green	Green	Grey	Grey	Grey	Dark Red	Green
TRADE	Green	Grey	Green	Green	Green	Grey	Green	Grey	Grey	Green

 Financial pressure lower than or equal to 15% (right-hand scale)

 Financial pressure higher than 15% and lower than 22,5% (right-hand scale)

 Financial pressure higher than or equal to 22,5%

Financial pressure varies across sectors.

Heterogeneity observed for agriculture and fisheries and electricity and water.

Construction and real estate sector presented the highest levels (except AT).



Profitability

Chart 7 to chart 10: Net operating profit over total assets, by size (2013, in %)

Chart 7 - All firms

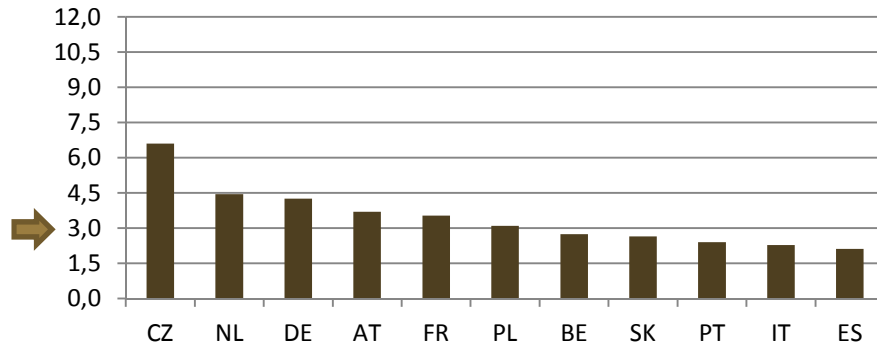


Chart 8 – Large firms

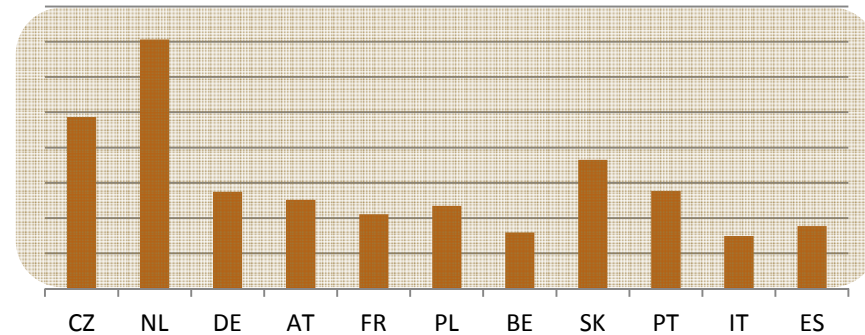


Chart 9 - Medium SMEs

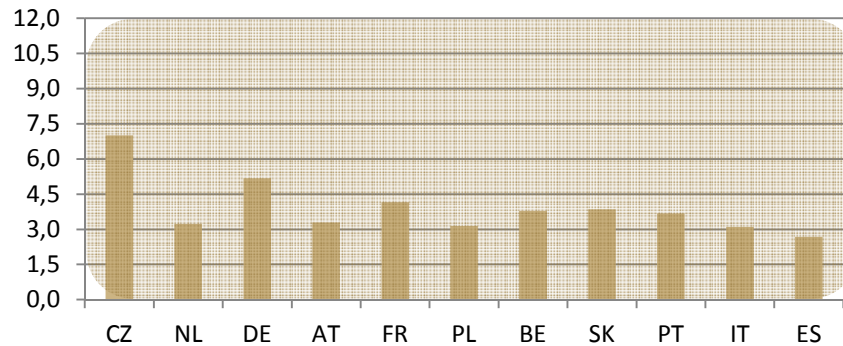
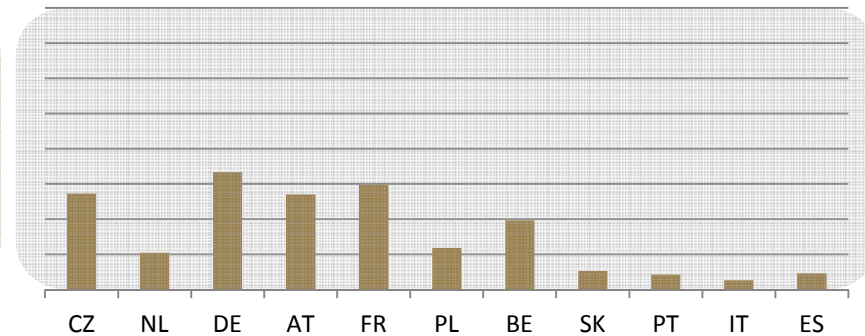


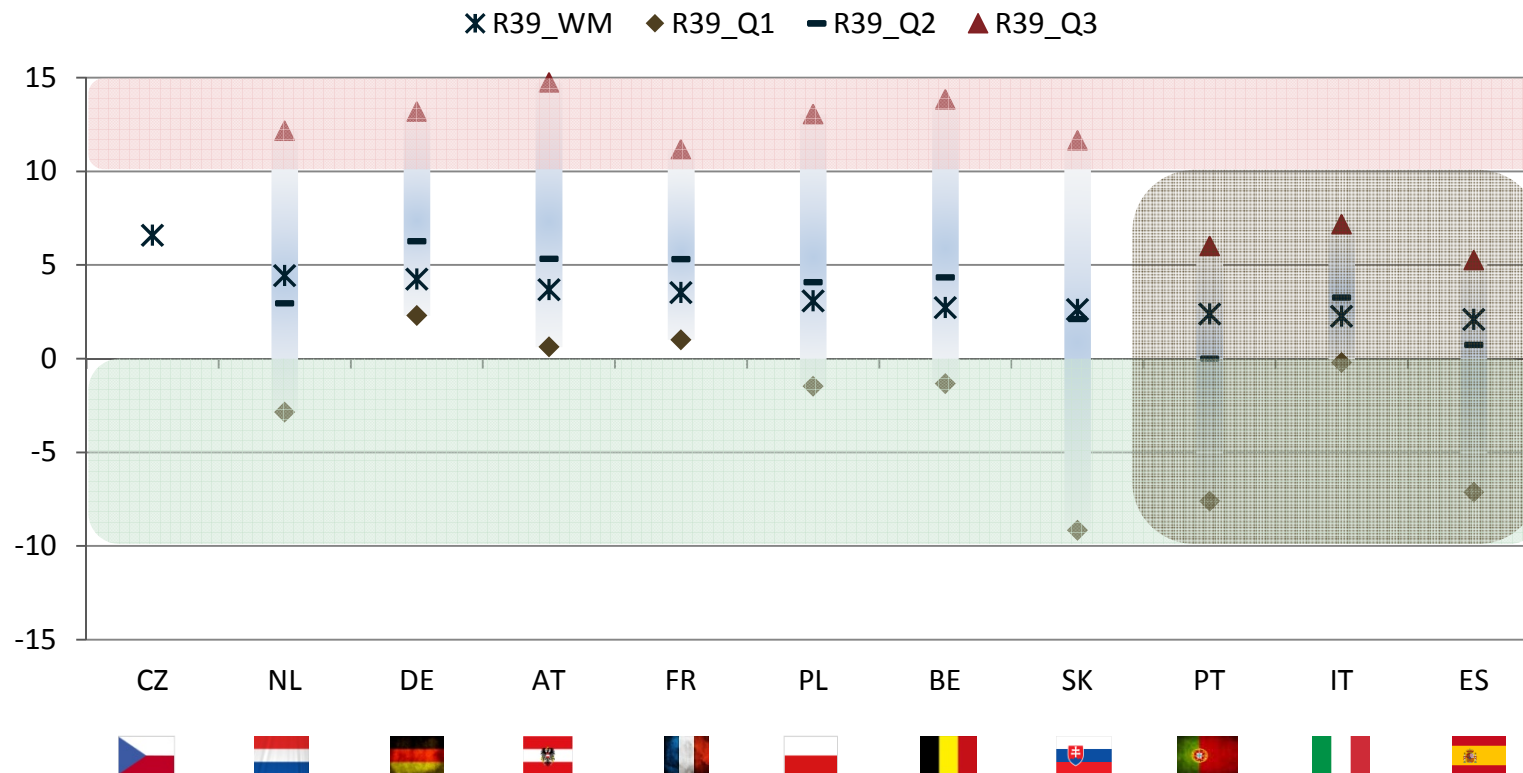
Chart 10 – Small SMEs



Levels of profitability above or close to 3% for the majority of countries.

Large firms with the highest level; Medium SMEs with intermediate levels; small SMEs with the lowest. Exception: DE, AT, FR and BE.

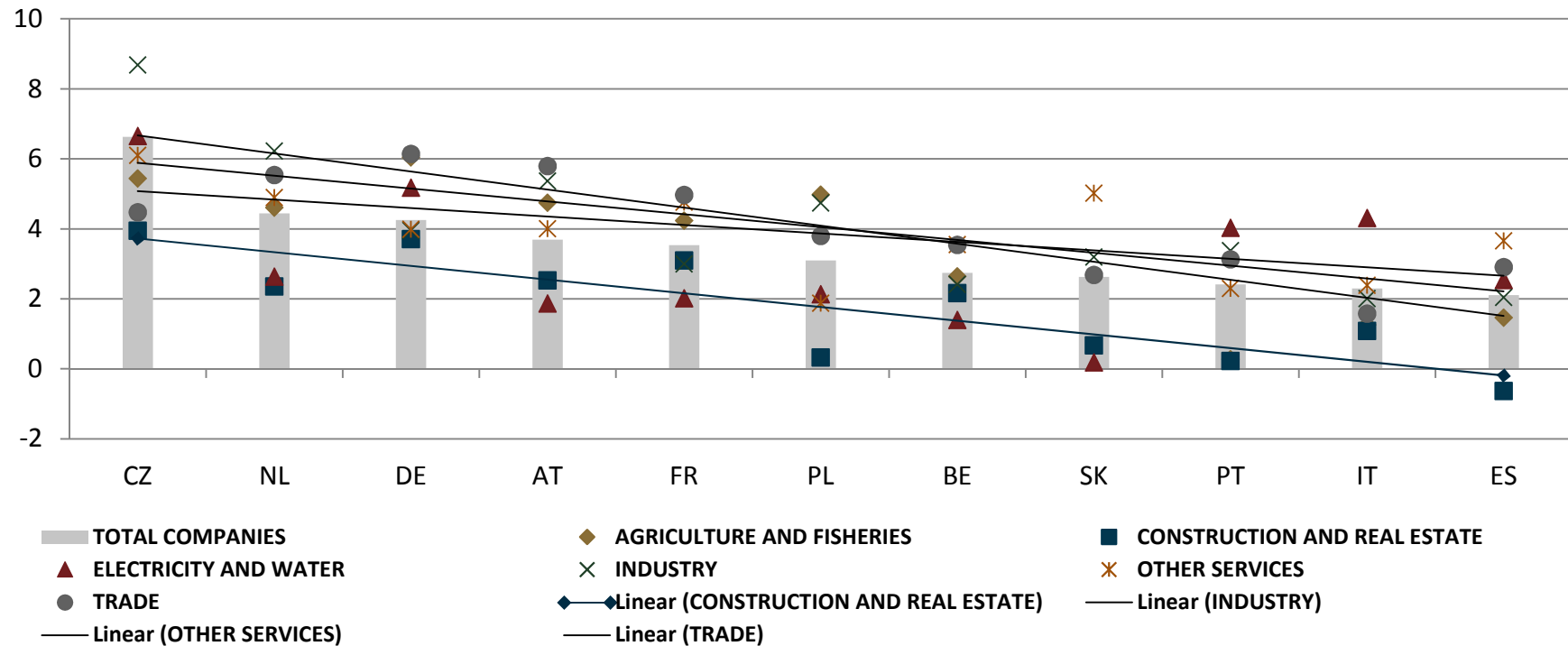
Chart 11: Net operating profit over total assets, dispersion measures (2013, in %)



First quartile negative for the majority of countries (except for DE, AT and FR).

Profitability rate higher than 10% at the third quartile for the most profitable countries.

Chart 12: Net operating profit over total assets, by sector (2013, in %)

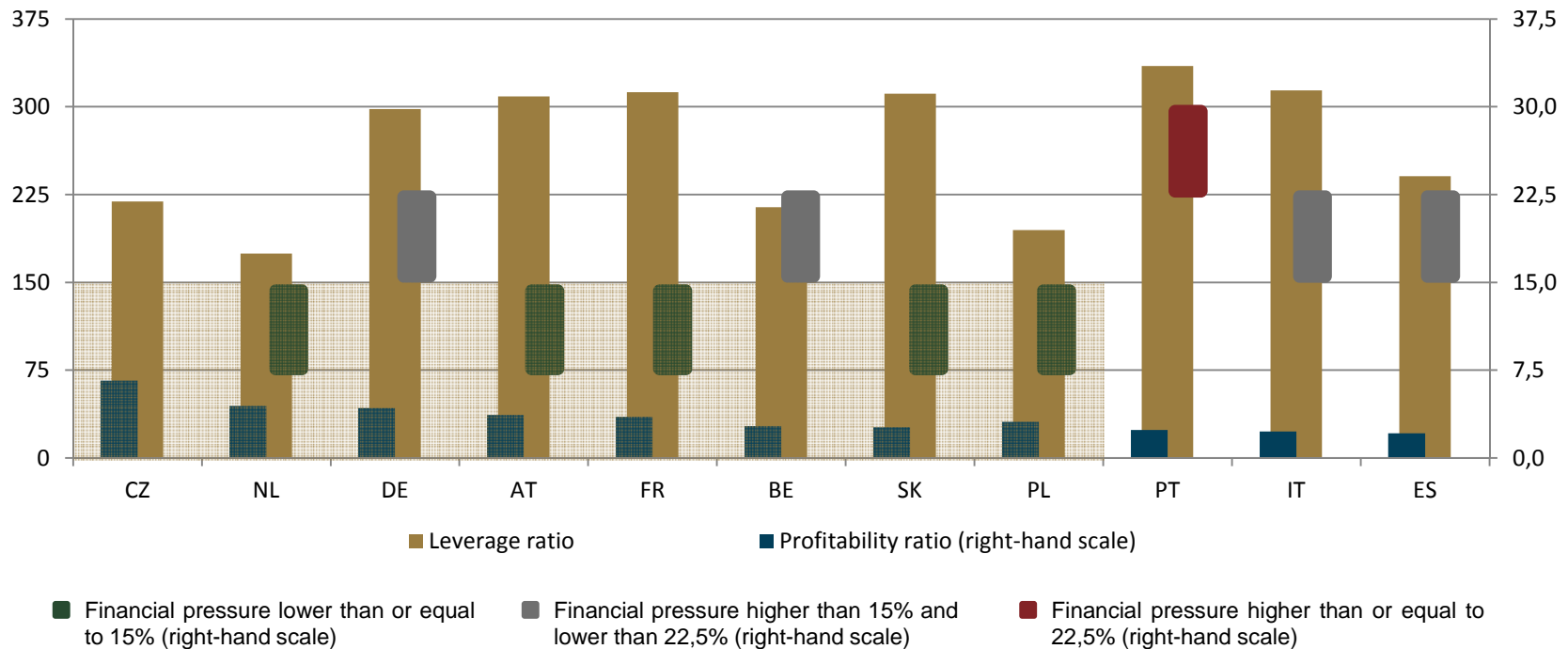


Industry, trade and other services: higher profitability, on average.

Construction and real estate: lower profitability rates in comparison to total.



Chart 13: Leverage ratio, financial pressure and profitability ratio – All sizes (2013, in %)

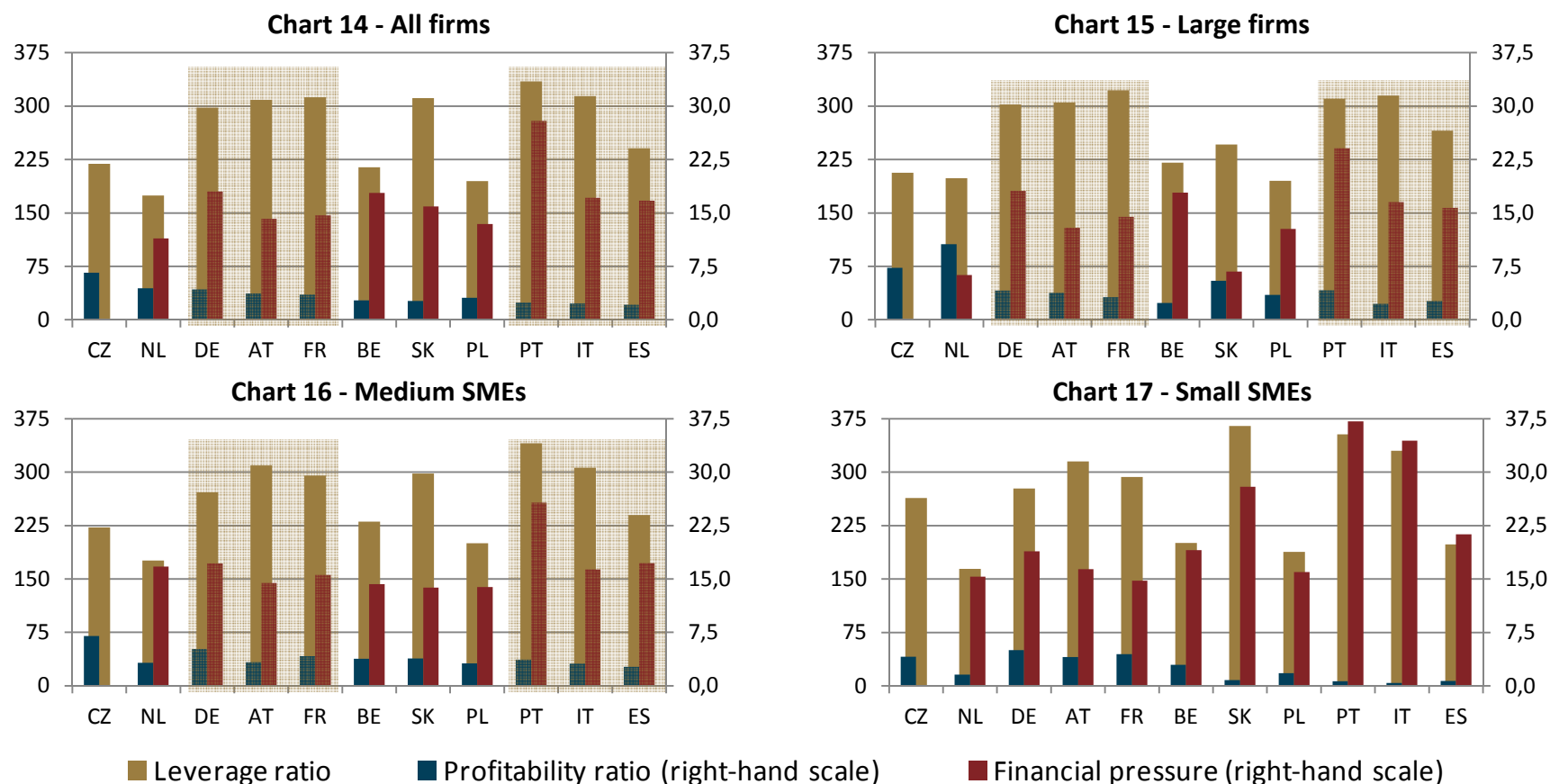


Higher levels of profitability generally associated to lower levels of financial pressure.



Final remarks

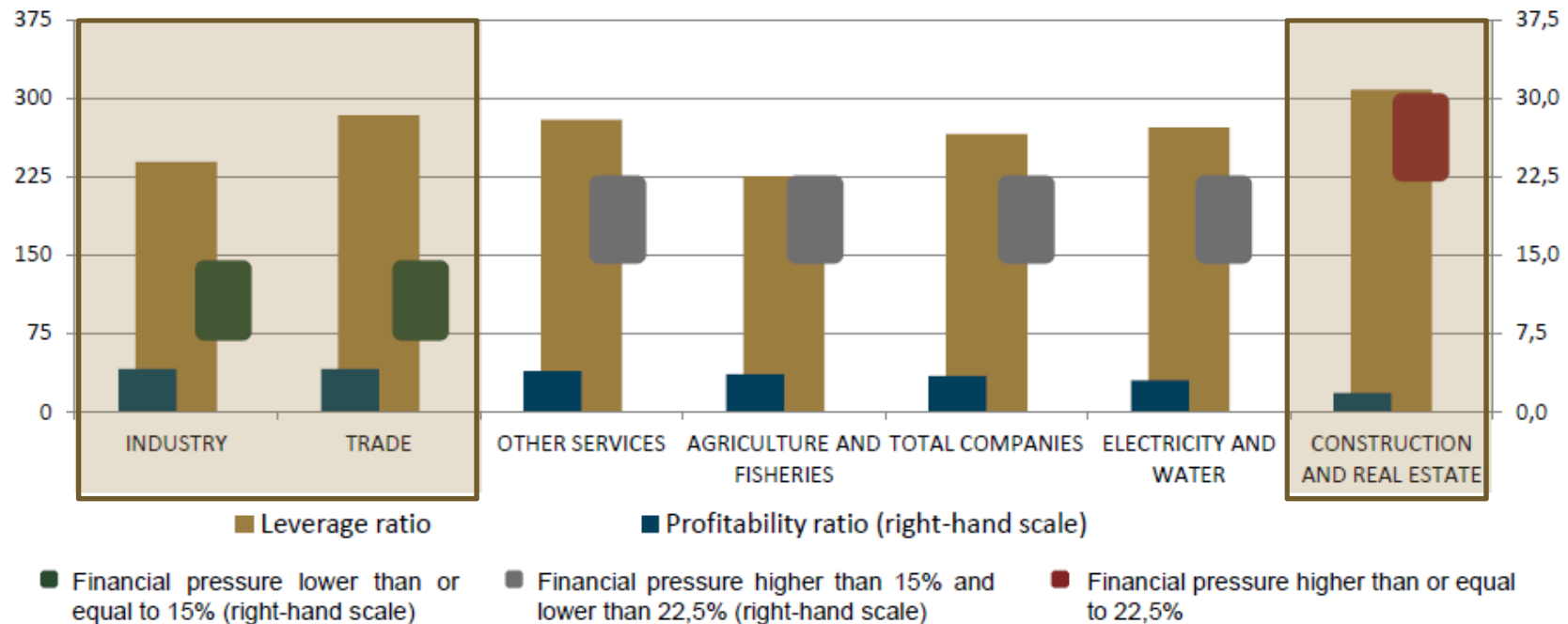
Chart 14 to chart 17: Leverage ratio, financial pressure and profitability ratio, by size (2013, in %)



Small SMEs deviate, having in general: the lowest level of profitability and the highest level of financial pressure.



Chart 18: Leverage ratio, financial pressure and profitability ratio, by sector (2013, in %)



Industry and trade: highest levels of profitability and the lowest level of financial pressure.

Construction and real estate sector: lowest level of profitability and the highest level of financial pressure and leverage.



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THANK YOU FOR YOUR ATTENTION



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Annex – Technical specifications of the BACH data, products and services

1 Methodological notes

2 BACH Products and Services

3 Coverage rates

4 Structures by business sector

5 Technical specifications of the BACH data



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Methodological notes

Sectors:

The business sector aggregations considered for this analysis are the following: (i) Agriculture and fisheries (NACE A), (ii) Industry (NACE B, C), (iii) Electricity and water (NACE D, E), (iv) Construction and real estate (NACE F, L), (v) Trade (NACE G) and (vi) Other services (NACE H, I, J, Mc, N, P, Q, R, S, T); Total companies='Zc' (total, without 'K642' and 'M701')

Size:

'0'=All firms; '1'=SMEs; '1a'=Medium SMEs; '1b'=Small SMEs; '2'=Large firms

Samples:

'0' = variable sample

Measures:

Wm (Weighted means); Q1 (first quartile); Q2 (median); Q3 (third quartile)

Indicators:

Current assets='R13'; Non-current assets=1-'R13'; Ratios not available for CZ. Non-financial fixed assets='A11'+ 'A12'; Financial fixed assets='A13'; Inventories='A2'; Trade receivables='A3'; Other receivables='A4'+ 'A5'; Other financial assets and cash and bank='A6'+ 'A7'.

Equity='E'; Provisions='Lp'; Current liabilities='R16'; Non-current liabilities=1-'E'- 'Lp'- 'R16'; Non-current liabilities includes current liabilities for CZ; Some variables of current liabilities are not available for AT, which implies an overestimation of non-current liabilities; Bonds and similar obligations='L1'; Amounts owed to credit institutions='L2'; Other creditors='L3'; Trade payables='L4'+ 'L5'; Other payables='L6'. '; Bonds and similar obligations for CZ.

Assets to equity ratio (Leverage ratio)='R11'; Financial pressure=1/'R22' (ratio not available for CZ); Net operating profit over total assets (Profitability ratio)='R39'.

Note: Ratios not available for CZ, PL and SK in 2005; for NL from 2005 to 2008; and for CZ in 2010.

Threshold values used for financial pressure:

- Financial pressure lower than or equal to 15% based on the first quartile approximately (by sectors from 2008 to 2013)
- Financial pressure higher than or equal to 22,5% based on the third quartile approximately (by sectors from 2008 to 2013)

Warning:

For Portugal, 2013 data is already based on the new European System of National and Regional Accounts (ESA 2010)

Outlook #3: Developments in the deleveraging process of European companies: Some effects on the assets side



■ **Outlook booklets:** compare recent trends in economic and financial issues of the European companies using BACH data

Yearly Get Insights: 2013



■ **Yearly Get Insights:** yearly portfolio of selected economic and financial indicators allowing to get easily a picture of the most recent situation of European companies

Userguide: 2013 data



■ **Userguide:** covers the methodology underpinning the data following a user-friendly approach. It supports the process of observing variables to obtain the extra information needed to compare data

Table 1: Coverage rates (2012/2013)

COUNTRY	NUMBER OF CORPORATIONS (C)	TURNOVER (T), EMPLOYMENT (E)
	Final Figures (2012 / 2013)	Final Figures (2012 / 2013)
AUSTRIA (1)	45,4%	-
BELGIUM (1)	99,0%	99,4% (E)
CZECH REPUBLIC (1)	10,2%	-
FRANCE	28,4%	81,3% (T)
GERMANY	8,6%	69,9% (T)
ITALY (1)	7,4%	76,5% (T)
NETHERLANDS	69,0%	N/A
POLAND (1)	3,0%	56,0% (E)
PORTUGAL (1)	95,8%	97,7% (T)
SLOVAKIA (1)	63,7%	80% (T)
SPAIN	37,1%	62,1% (E)

Legend: (1) 2013 corresponds to Final Figures



Structures by business sector

Table 2: Structures of the sample by sector (absolute difference in p.p. between population and sample, 2013)

	NACE SECTION	AT	FR	DE (1)	IT	NL	PL	ES (1)
		C	E	T	T	C	C	E
A	Agriculture, forestry and fishing	0,0	0,0	0,2	0,1	0,0	1,7	1,5
B	Mining and quarrying	0,0	0,0	0,1	0,7	0,0	N/A	0,1
C	Manufacturing	5,0	2,7	3,1	3,0	0,6	N/A	0,6
D	Electricity, gas, steam and air conditioning supply	0,0	0,3	5,7	1,1	0,0	N/A	0,2
E	Water supply, sewerage, waste management and remediation act.	0,0	0,1	0,2	0,0	0,0	N/A	0,4
F	Construction	4,0	0,1	1,4	2,1	0,8	2,2	1,0
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	3,0	1,5	3,6	0,3	2,6	1,7	0,9
H	Transportation and storage	1,0	0,5	0,3	0,1	0,1	2,1	1,3
I	Acommodation and food service activities	3,0	0,6	0,4	0,7	0,1	0,7	1,1
J	Information and communication	1,0	0,7	0,8	0,2	0,9	0,7	0,6
L	Real estate activities	2,0	0,7	0,1	0,1	4,7	1,4	0,1
M	Professional, scientific and technical activities	3,0	0,7	1,4	N/A	7,2	7,2	0,5
N	Administrative and support service activities	0,0	0,9	1,1	0,4	0,2	0,1	0,1
P	Education	1,0	0,3	0,1	N/A	0,6	2,0	1,2
Q	Human health and social work services	0,0	1,5	0,9	N/A	1,1	5,8	0,6
R	Arts, entertainment and recreation	1,0	0,1	0,2	0,1	2,6	0,5	0,9
S	Other service activities	0,0	0,5	0,3	0,1	3,3	4,2	0,1

Legend: Less than 1 p.p. Between 1 p.p. and 3 p.p. More than 3 p.p.

(1) Final Figures for 2012; PT and BE are not represented because they cover the entire population. Additionally, differences between population and the sample are not available for CZ and SK.

(C) Number of corporations; (T) Turnover; (E) Employment



Technical specifications of the BACH data - Samples

Year	Sample	Number of companies	Turnover
2008	SLIDING	500	80 M€
2009		500	78 M€
2009	VARIABLE	750	95 M€
2009	SLIDING	600	83 M€
2010		600	86 M€

Sliding samples allow to study the same set of firms over two subsequent years.

Thus, from the example above, for a given country – sector – company size, 3 records are available just for the year 2009:

- **Sample = 0: The variable sample of 2009** includes all the companies whose balance sheet is available in 2009. (750 units)
- **Sample = 1: The sliding sample of 2008-2009** contains the companies whose balance sheet is available both in 2008 AND in 2009. (500 units)
- **Sample = -1: The sliding sample of 2009-2010** contains the companies whose balance sheet is available both in 2009 AND in 2010. (600 units)



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Technical specifications of the BACH data – By business sector

NACE SECTION		NACE DIVISION
Z0	Total NACE (includes M701, but excludes K 642)	
Zc	Total NACE (without K642 and M701)	
A	Agriculture, forestry and fishing	01, 02, 03
B	Mining and quarrying	05, 06, 07, 08, 09
C	Manufacturing	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33
D	Electricity, gas, steam and air conditioning supply	35
E	Water supply, sewerage, waste management and remediation act.	36, 37, 38, 39
F	Construction	41, 42, 43
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	45, 46, 47
H	Transportation and storage	49, 50, 51, 52, 53
I	Accommodation and food service activities	55, 56
J	Information and communication	58, 59, 60, 61, 62, 63
K 642	Activities of holding companies	
L	Real estate activities	68
M	Professional, scientific and technical activities	69, 70, 71, 72, 73, 74, 75
Mc	Total M (without M701)	
M 701	Activities of head offices	
M702	Management consultancy activities	
N	Administrative and support service activities	77, 78, 79, 80, 81, 82
P	Education	85
Q	Human health and social work services	86, 87, 88
R	Arts, entertainment and recreation	90, 91, 92, 93
S	Other service activities	94, 95, 96

Based on the Regulation (EC) No 1893/2006 of the European Parliament and of the Council, 20 December 2006 of 20 December 2006, Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:393:0001:0039:EN:PDF>

Technical specifications of the BACH data - **By size**

0	All sizes	-
1a	Small	Turnover < 10 million €
1b	Medium	10 million € ≤ Turnover < 50 million €
1	SME	Turnover < 50 million €
2	Large	Turnover ≥ 50 million €

Based on the Recommendation of the European Commission, 6 May 2003 (2003/361/EC), only in what concerns the turnover.



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Technical specifications of the BACH data - Holdings and head offices

In order to preserve the harmonization of the BACH database and in order to ease sectoral analysis:

- Holdings and head offices do not have detail by NACE section or division neither by size
- It is provided an aggregated item of all companies without holdings and head offices
- NACE group 642 is excluded from division 64 since companies in this group are not considered as non-financial companies
- Ratios that involve the turnover of holdings and head offices are not available

Memo:

K 64 = 'Financial service activities, except insurance and pension funding'

M= 'Professional, scientific and technical activities'

M 701 ='Activities of head offices'

M 702 ='Management consultancy activities'

EDITION OF VALUES FOR HOLDINGS AND HEAD OFFICES BY NACE SECTOR AND SIZE

SIZE/ NACE SECTOR	K642	M701	M702	M70 = M701 + M702	Mc (M without M701)	M (including 701)	Zc (without K642 and M701)	Z0 (including M701, not K642)
Small	No	No	Yes	No	Yes	No	Yes	No
Medium	No	No	Yes	No	Yes	No	Yes	No
SME	No	No	Yes	No	Yes	No	Yes	No
Large	No	No	Yes	No	Yes	No	Yes	No
All sizes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Technical specifications of the BACH data – Statistical measures

Absolute values	<i>Total assets (€ thousands), value added (€ thousands), turnover (€ thousands), number of employees and number of enterprises (in the case of the Ratios, nbq = number of companies used to calculate q1, q2 and q3)</i>
Percentage of the Total Balance Sheet	<i>Items of the balance sheet</i>
Percentage of the Net Turnover	<i>Items of the Income Statement and the information on the notes</i>
Weighted mean (wm)	<i>Ratios. Computed by aggregating the data of the numerator on the one hand, and the data of the denominator on the other hand. This measure provides a complementary approach and is influenced by the largest companies in each category (sector or size)</i>
Q1 = First quartile*	<i>Ratios. For each single ratio the observations of a certain sample are sorted in ascending order. This sample is then divided into four quarters. 25% of the enterprises have a ratio below this quartile and 75% have a ratio above</i>
Q2 = Second quartile*	<i>Ratios. For each single ratio the observations of a certain sample are sorted in ascending order. This sample is then divided into four quarters. Middle value that cuts the data in half. It is also known as the median</i>
Q3 = Third quartile*	<i>Ratios. For each single ratio the observations of a certain sample are sorted in ascending order. This sample is then divided into four quarters. 75% of the enterprises have a ratio below this quartile and 25% have a ratio above</i>

Technical specifications of the BACH data – Confidentiality criteria

	CONFIDENTIALITY RULES – <i>minimum number of companies required for the edition of the data</i>		
	WEIGHTED MEAN	Q2	Q1 and Q3
AT, CZ, PL, PT, LU	3	6	12
BE, FR, IT, NL, SK, ES	6		
DE	12	12	