

# Access to bank loans for EU firms in times of crisis

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### Research question / approach

- Which factors explain firms' access to finance difficulties?
- We investigate a broad range of potential factors: firm characteristics, sector, cyclical conditions, structure & financial health of the banking sector
- We link SAFE with ECB data on the financial sector (consolidated country data) and Eurostat's unemployment data





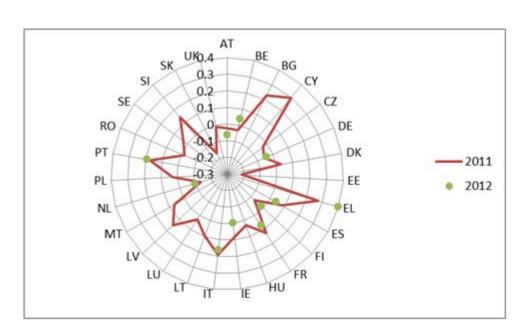
### SAFE survey on access to finance

- Large-scale survey among firms in the EU/euro area
- Jointly financed by ECB/European Commission
- Detailed info on access to finance and firm characteristics
- Can shed light on the "demand versus supply" discussion
- We use 2011H1 for EU and 2012H2 for euro area





# Some examples of access to finance indicators (SAFE): (1) Change (over past 6 months) in the needs for a bank loan



>0 indicates demand increase

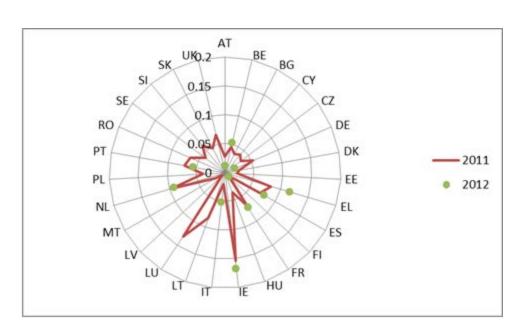
Increase in CY, EL, FR, IT

Decrease in EE, NL, SK





## (2) Discouraged borrowers



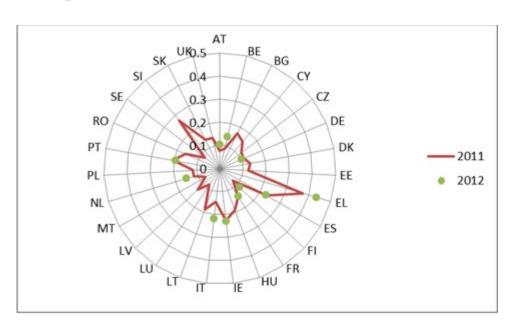
Fraction of firms not applying for a loan because of possible rejection

High in EL, IE, LU, NL





# (3) Firms indicating access to finance as the most pressing problem



"Most pressing" relative to other problems (e.g. finding customers)

High in EL, ES, IE, PT, SI







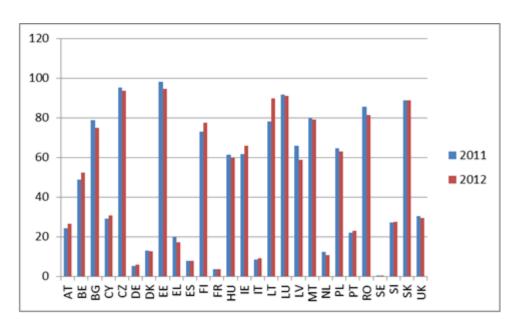
## Demand- and/or supply-factors?

Demand	Supply	
Decreased needs of firms for bank loans	Firms indicating access to finance as the most pressing problem	
Top 4: EE, FI, NL, SK	Top 4: ES, EL, IE, SI	
Discouraged borrowers  Top 4: EL, IE, LU, NL	Decreased availability of bank loans  Top 4: EL, IE, PT, SI	
	Decreased willingness of banks to provide a loan  Top 4: ES, EL, PT, SI	
	Received not all the financing requested	
	Top 4: ES, EL, IE, NL	





# Characteristics of the banking sector (I) Market structure: Percentage of foreign banks



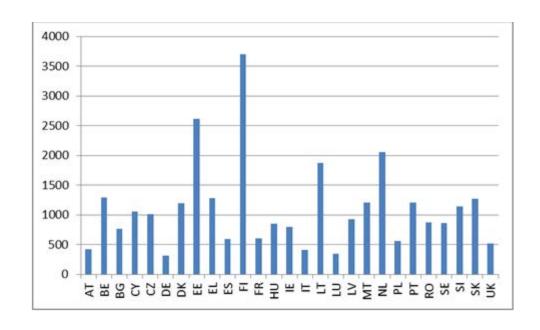
Almost full foreign ownership in CZ, EE, LT, LU, SK

Low percentage in DE, ES, FR, SE





# (I) Market structure: Herfindahl-index



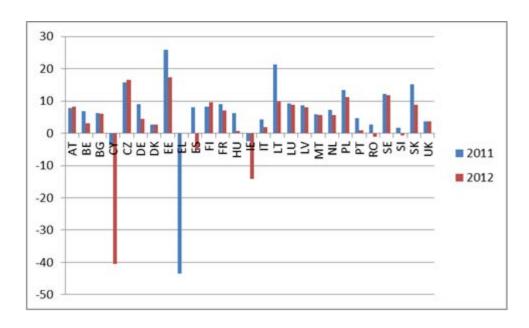
Concentrated banking sector in EE, FI, LT, NL

Low market concentration in AT, DE, LU





# (II) Financial indicators: Return on equity of banks



High in CZ, EE

Negative in CY, EL, IE





### **Econometric analysis**

- LOGIT regressions with firm characteristics, business cycle conditions, and indicators for the financial sector as main regressors
- Ran for various indicators of access to finance
- Discouraged borrowers omitted from the sample







# Key regression results (I)

# Dependent variable: "access to finance as the most pressing problem" (1 "yes"; 0 "no")

	marginal effect	Z
Age≥10 years	-0.037	-3.86
Firm's growth expectations	0.012	2.14
Listed on stock market	-0.031	-2.62
Applied previously for loan	0.081	10.05
Unemployment	0.007	6.98
Return on equity of banking sector	-0.003	-16.65
Observations	9.859	





# Key regression results (II)

Dependent variable: "d	liscouraged borrower"	(1 "yes"; 0
"no")		

	marginal effect	Z
Age≥10 years	-0.025	-5.04
Size 10-49 workers	-0.024	-3.40
Size 50-249 workers	-0.044	-6.63
Firm's growth over last 3 years	-0.018	-5.34
Applied previously for loan	0.014	1.89
Return on equity of banking sector	-0.0005	-2.52
Observations	10,767	



#### Some other results

- Willingness of banks to provide loans increases with firm's age, size, if firm has grown over past 3 years, if firm expects positive growth, if firm innovates, if unemployment is lower, and if ROE in banking sector is higher
- Part of loan that firms receive increases with firm's age, size, if firm has grown over past 3 years, if firm expects positive growth, if unemployment is lower, and if ROE in banking sector is higher



Further ongoing work at the Commission on financing: "Firm Productivity, Exporting and the role of Financial Conditions" by

Hylke Vandenbussche DG ECFIN B2 in collaboration with Carlo Altomonte (Bruegel) & Tommaso Sonno (Bocconi)

This study uses EFIGE survey data (Bruegel) merged with AMADEUS data on firm characteristics.

The purpose of the study is to see how country-, sector- and firm-level financial conditions affect firm productivity and firm's export market participation.

Economic and Financial Affairs