



NATIONAL BANK OF ROMANIA

The 13th Edition of the Seminar on Financial Stability Issues

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# SMEs' access to finance. A financial stability perspective

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The opinions expressed in this presentation are those of the author and do not necessarily reflect the views of the National Bank of Romania

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# Agenda

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- Introduction and motivation
- SMEs evolution and current environment
- SMEs' opinion regarding access to finance
- Credit environment for SMEs
- Firms' characteristics influencing access to finance
- Conclusions

# Introduction and motivation

## Access to finance – an important pillar in SMEs development

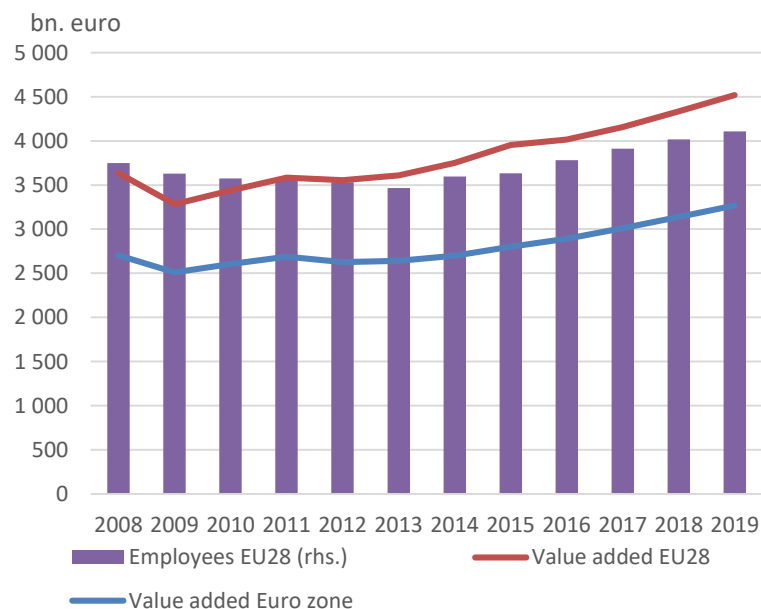
- Access to funding represents a key step for the development of the non-financial sector
- Small and medium enterprises (SME's) are a major part of EU economies. Securing proper financing would contribute to economic growth
- SMEs employ 2 of every 3 employees in Europe and produce 57 cents of every euro of value added (net contribution of the company to the economy)
- Developing the SME sector represents an essential European priority, including from an access to finance perspective
- In this context, it is important to bear in mind that the SME portfolio was responsible for an important share of NPL at EU level. Therefore, SMEs financial inclusion should be expanded in a tenable manner.
- This analysis strives to identify companies' key characteristics which influence their access to finance.

# SMEs evolution and current environment

## SMEs evolution in the European Economy

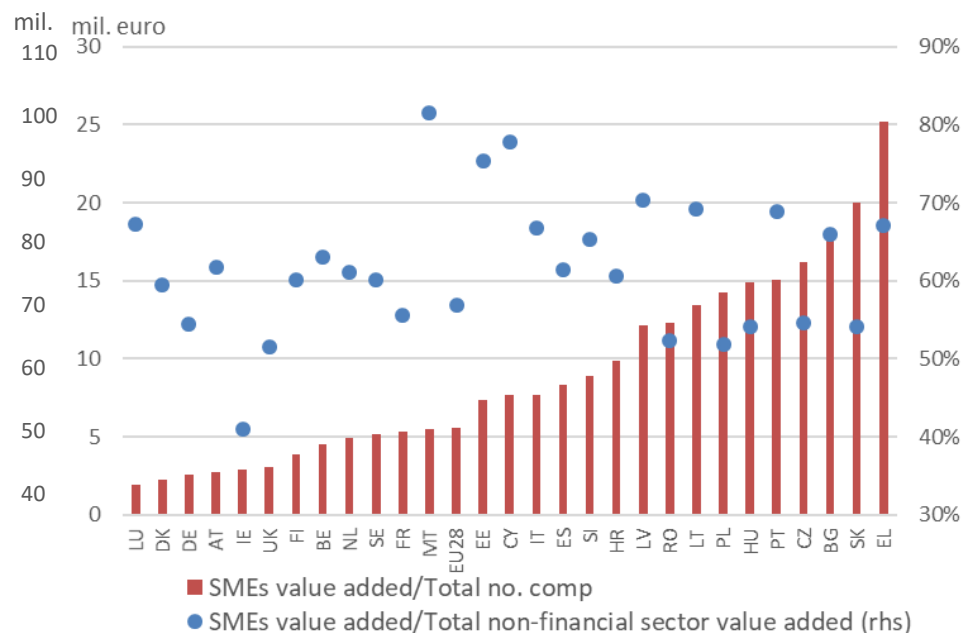
SMEs represent the core of the non-financial business sector of the European economy. The past 10 years represented a constant growth of their contribution to the economy, recovering the losses recorded in the aftermath of the financial crisis.

### SMEs value added and employees evolution



Source: SME Performance Review 2018, European Commission, data estimated for 2018-2019

### SMEs value added (VA) importance in non-financial sector, EU28 comparison -2019 expected values



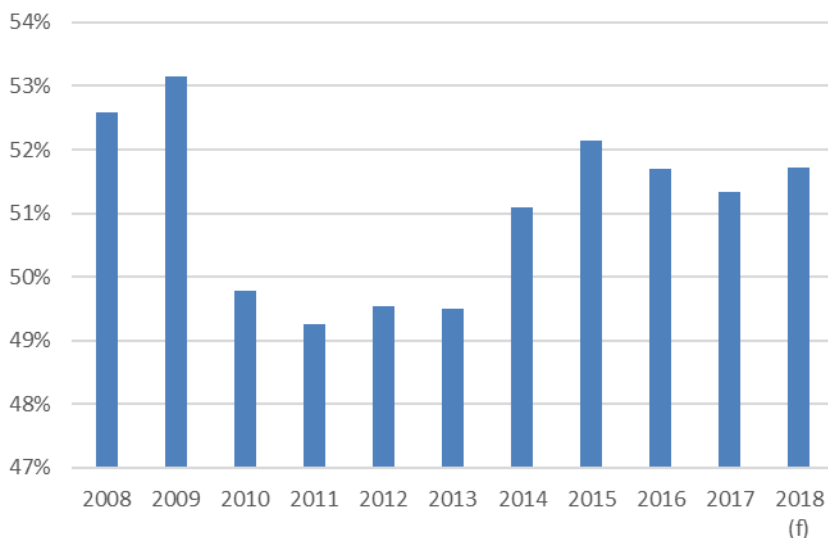
Source: SME Performance Review 2018, European Commission

# SMEs evolution and current environment

## Local SMEs' evolution

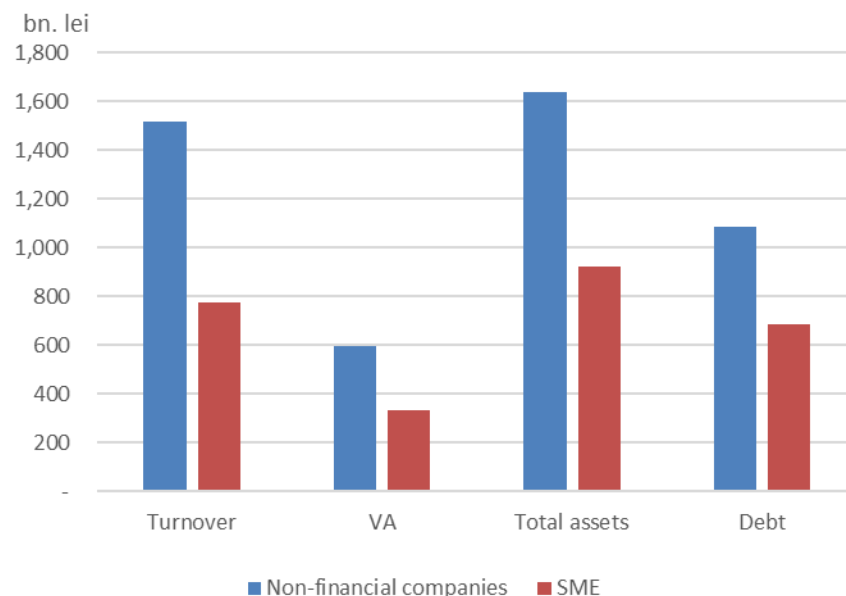
- In Romania, SMEs account for more than 56% of the value added (VA) in non-financial sector and 64% of employees.
- At the end of 2018, 682 thousand SMEs reported financial statements, out of 717 thousand non-financial companies.

## SMEs' value added evolution



Source: SME Performance Review 2018, European Commission

## SMEs vs. non-financial corporate sector



Source: MPF, NBR calculations

# SMEs evolution and current environment

## Sector-related policies in developing financial inclusion

- In the 11 years passed from the Small Business Act in Europe(SBA), EU countries have adopted a great number of policies meant to improve SMEs access to finance.
- Many regulations were adopted in the countries where financing was restricted the most during the crisis.
- Credit guarantee funds for small companies were the most popular choice for member states.
- SBA (Small Business Act) policies generate “statistically robust and positive effects on SME outcomes”, according to the annual report on European SME’s 2017/2018 empirical analysis

### The 10 Principles of SBA

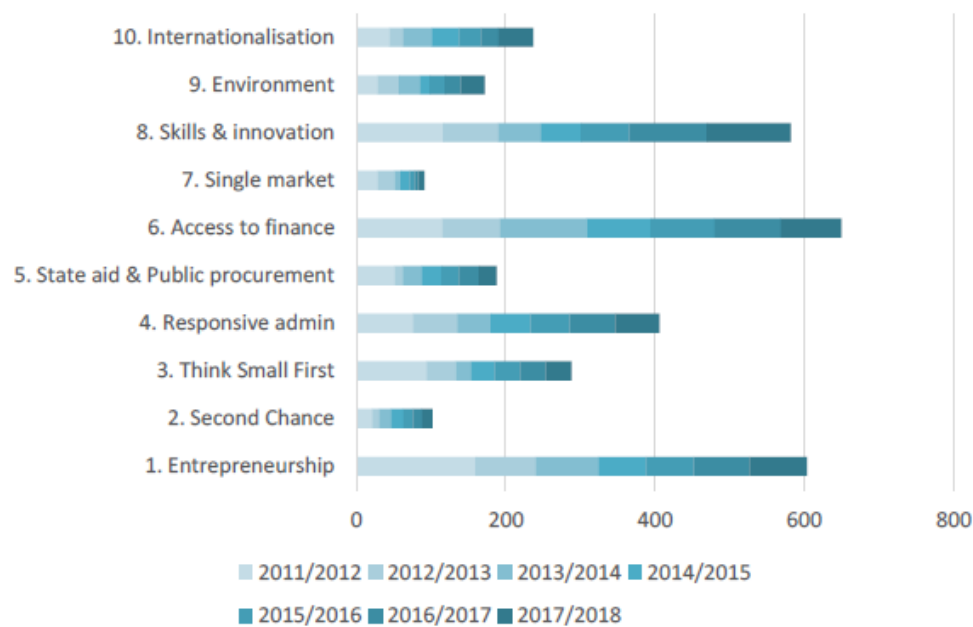
Entrepreneurship	Second chance
Think small first	Responsive administration
State aid & public procurement	<b>Access to finance</b>
Single Market	Skills & Innovation
Environment	Internationalisation

# SMEs evolution and current environment

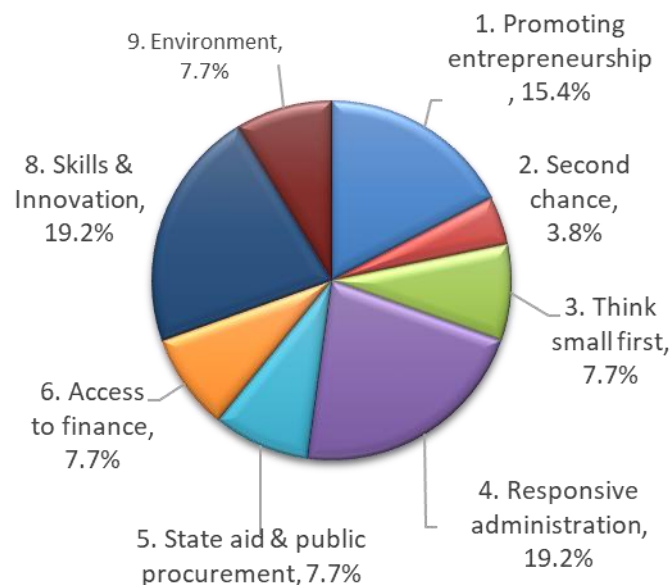
## Sector-related policies in developing financial inclusion

- At European level, *Access to finance* is the second most covered principle in policies adopted during 2011-2018
- Romania has implemented, in 2017-2018, two programs related to SMEs access to finance (“Start-up Nation” –up to ~42,000 euro for 10,000 firms- annual budget, and “SME INVEST Romania”)
- At macroprudential level, the National Committee for Macroprudential Oversight has adopted last year a recommendation, seeking to improve financial discipline and the financial soundness of firms.

### SBA policy implementation EU28 (2011-2018)



### SBA policy implementation in Romania (2017-2018)



Source: EC, SME Annual Report 2017-2018

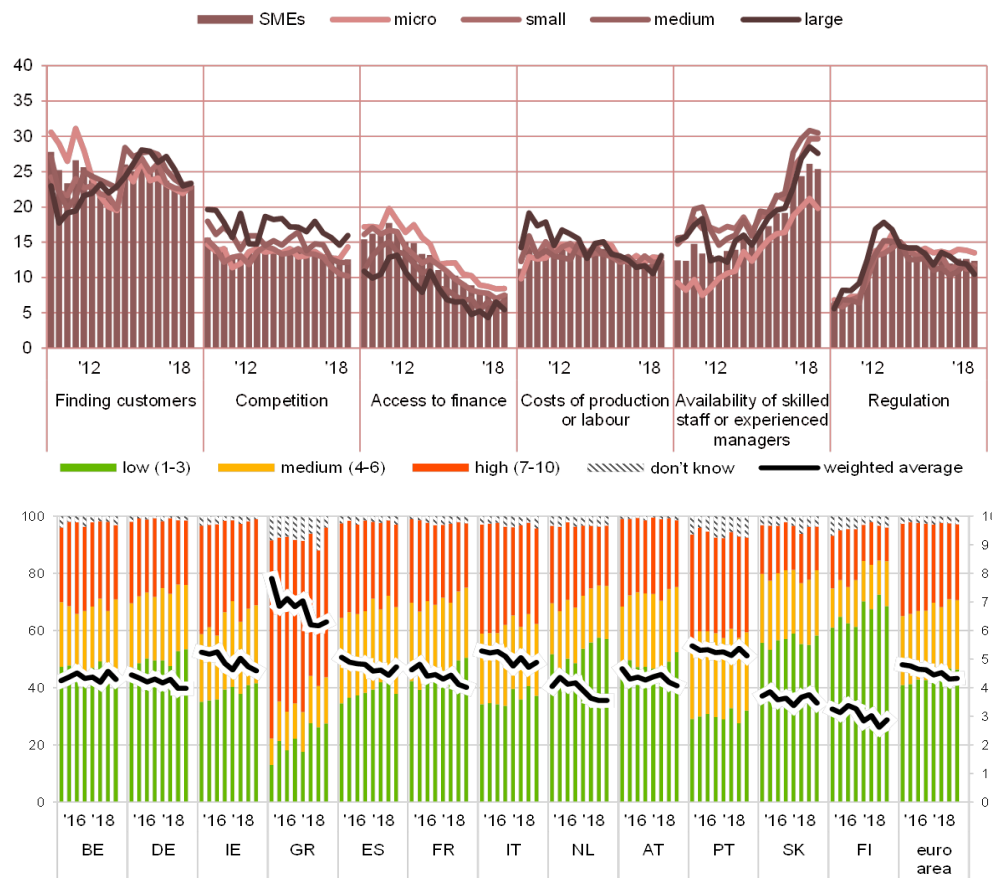
Source: EC, SME Annual Report 2017-2018

# SMEs' opinion regarding access to finance

## European perspective

- According to ECB's survey on access to finance, the availability of skilled labour continues to be the central concern for euro area SMEs (25%), together with the difficulty of finding customers (23%).
- Access to finance was considered the least important obstacle (8%, with a sharp declining trend).
- However, at country level, there are significant differences.

### Most pressing problems faced by companies in EU



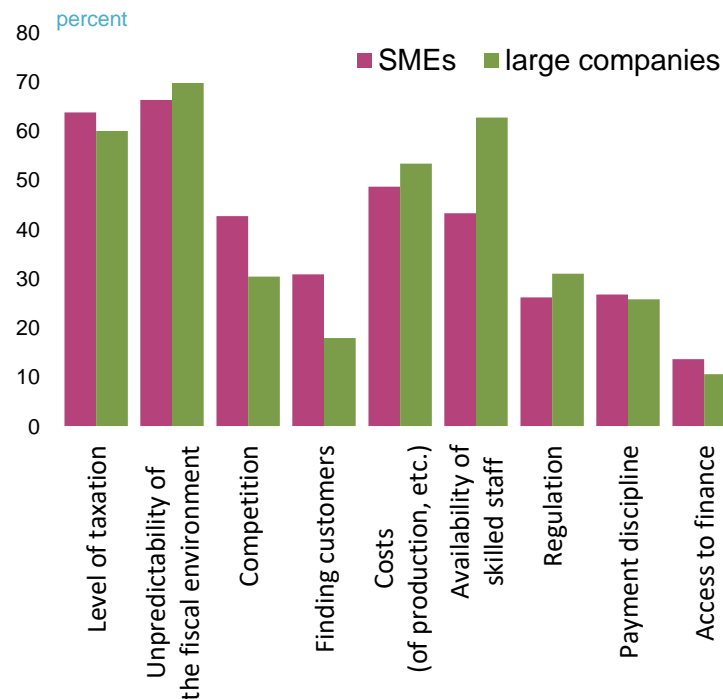
Source: ECB, Survey on the Access to Finance of Enterprises in the euro area – October 2018 to March 2019

# SMEs' opinion regarding access to finance

## Romanian perspective

- In Romania, according to the periodical survey of NBR, companies do not view access to finance as a pressing problem.
- However, SMEs point more to this issue in affecting their activity than large companies do.
- The small share of companies that consider access to finance as an obstacle may be influenced by Romania's low financial intermediation.
- The structural vulnerabilities in the corporate sector also stand as a factor in SME's access to finance.

Most pressing problems faced by SMEs and large companies in Romania, October 2018 -- March 2019



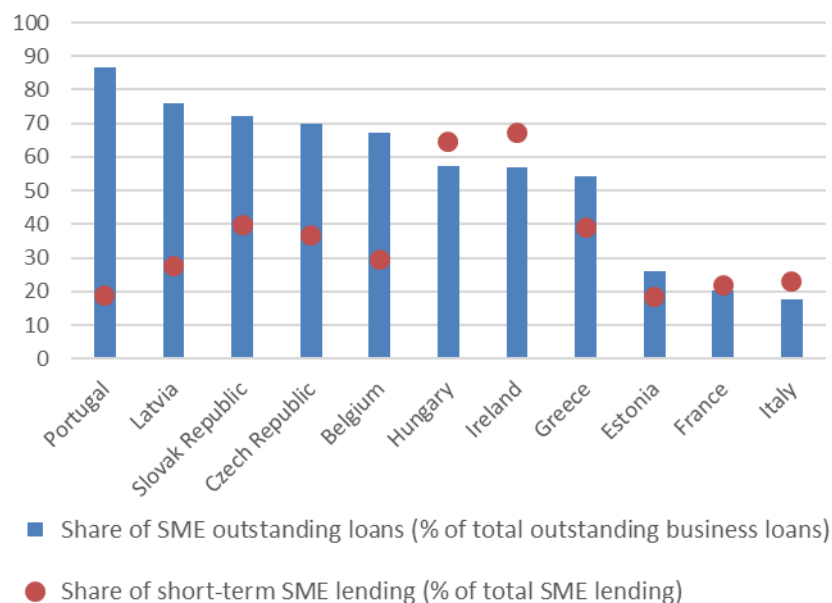
Note: Question with grading scale (from 1 – the most pressing problem to 5 – the least pressing problem), taking into consideration only the attribute pressing (grades 1 and 2).

Source: NBR Survey of Access to Finance, June 2019

# Credit environment for SMEs

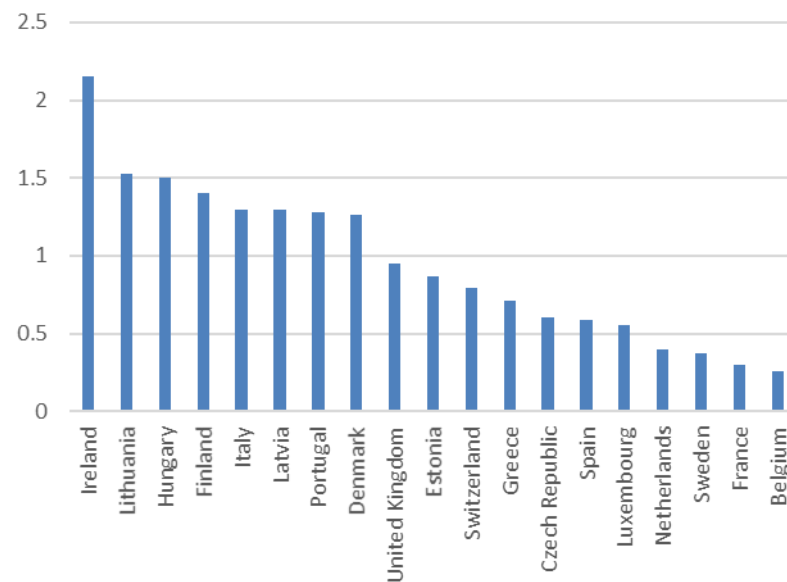
- The share of SME loans in total corporate portfolios varies across Europe from almost 90 percent to less than 20 percent. In case of short-term loans, the share is mainly lower.
- Interest rate for small companies loans is, in average, with approx. 1 pp. higher than for large companies.

Share of SME loans (% of total business loans) - 2017



Source: OECD

Interest rate spread (%points) SMEs vs. large companies - 2017



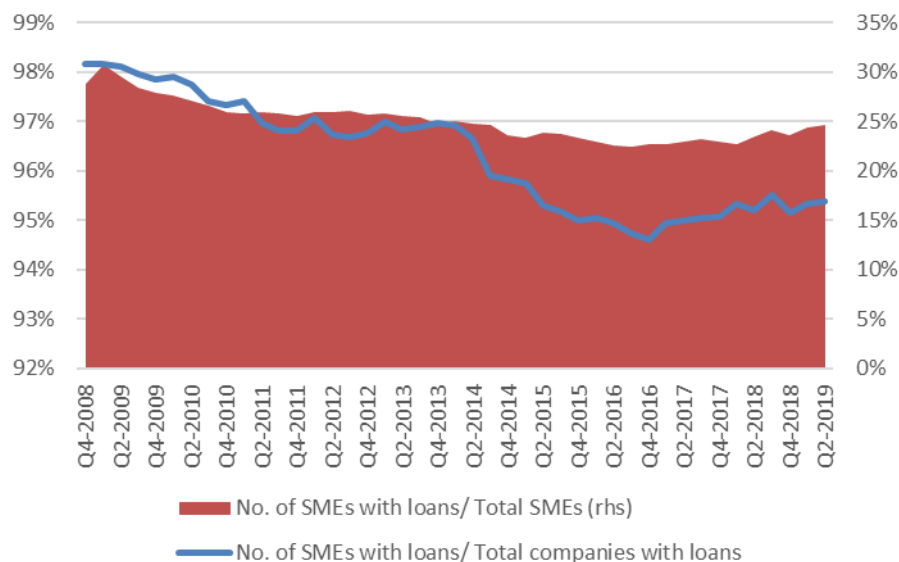
Source: OECD

# Credit environment for SMEs

## Credit dynamics in Romania

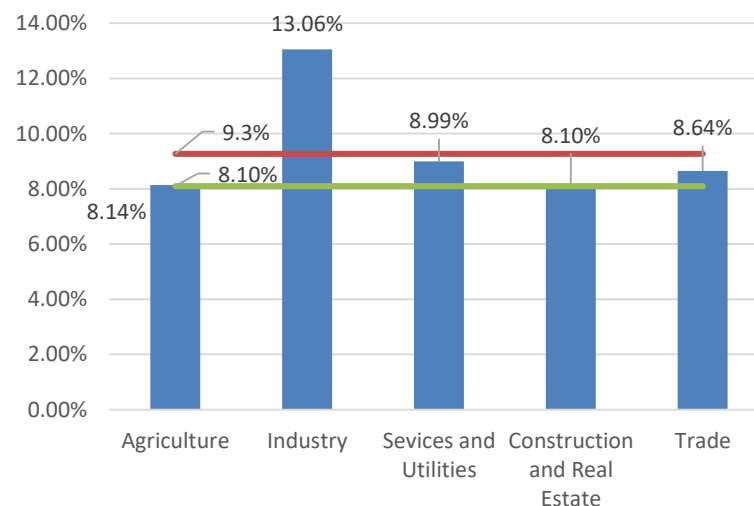
- The small and medium companies in Romania have experienced, post-crisis, a turbulent credit evolution.
- The recent trend is upward. At Q2 2019, 95% of total companies with loans were small or medium-sized companies. Out of total SMEs, only 25% have credits.
- Most small and medium enterprises in Romania are involved in Construction, Real Estate and Trade
- Companies from industry have the highest NPL rate (13%), while the NFC average is 8,5 percent and the SMEs average is 10 percent.

No. of SMEs with loans- comparison with total companies with loans and with total SMEs



Source: MPF, Credit Registry, NBR calculations

NPL values – sectoral comparison



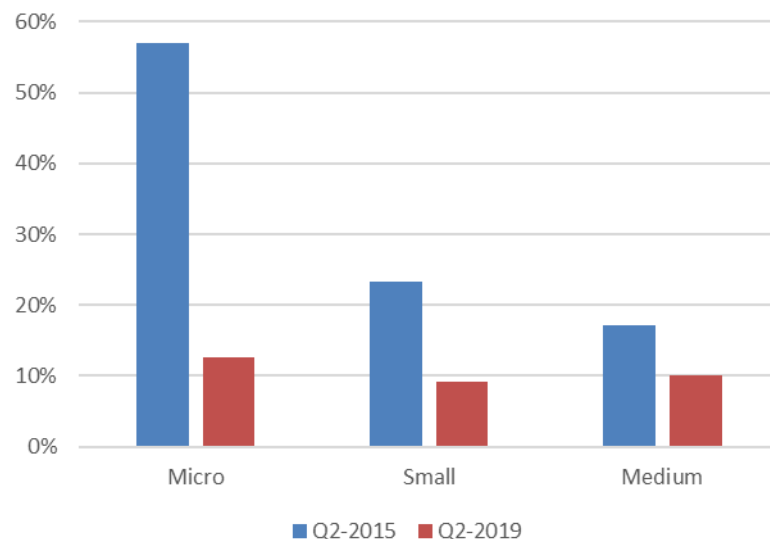
Source: MPF, Credit Registry, NBR calculations

# Credit environment for SMEs

## Credit dynamics in Romania

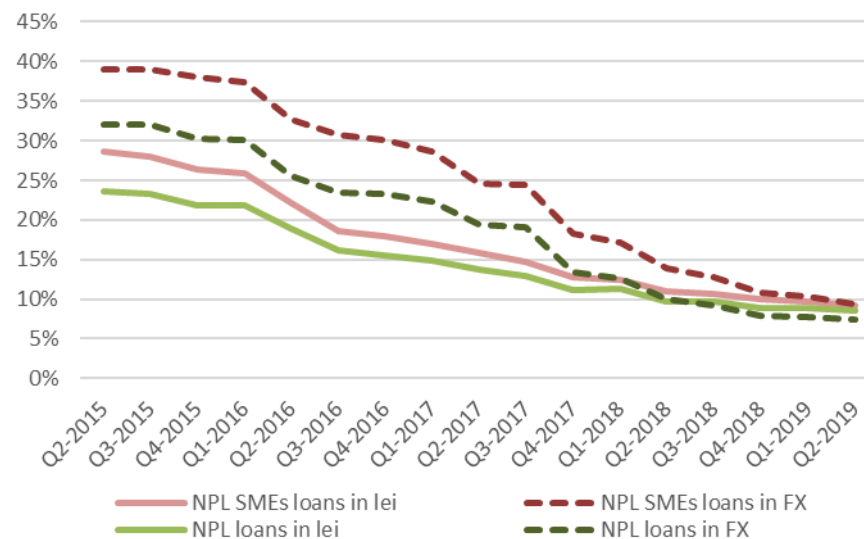
- Loan quality for small companies has improved over the past years, for both RON and FX portfolios
- Compared to the NFC sector, SMEs present higher NPL rates (EBA definition) for both local and foreign currency denominated loans. However, the gap has decreased constantly.
- FX loans represent 40% of total SMEs loans and have a slightly higher NPL rate (9,3%) than RON-denominated loans (9,2%)
- Micro firms are the highest non-performers, but the situation improved significantly in the past 4 years.

SMEs NPL evolution 2015-2019, depending on company size



Source: MPF, Credit Registry, NBR calculations

NPL to SMEs comparison to NFC sector.  
Local currency vs. FX



Source: MPF, Credit Registry, NBR calculations

# Firms' characteristics influencing access to finance

## Methodology and data

### How does balance sheet soundness influence SME's access to finance?

#### Empirical analysis

- Ordered logit methodology, with a stepwise selection method.
- Looking to determine the factors related to the financial position of the firms that mostly influence the access of SMEs to finance, in a model with ordinal outcomes (**high, moderate, low**).

*\* Based on the PD model developed by Costeiu A. and Neagu F. (2013) – “Bridging the Banking sector with the real economy. A financial stability perspective”*

#### Data

- Financial indicators from financial statements (source: Ministry of Public Finance)
- Surveys on the access to finance of non-financial corporations in Romania (source: NBR)
- Probability of default calculated for each company (\*)
- Time span: 2013->Q2-2019

# Firms' characteristics influencing access to finance

## Methodology and data

### Explanatory variables:

- Financial ratios derived from firm's financial statements (SMEs)
  - Out of ~150 financial ratios, only 7 selected
- Probability of default

### Dummy variables

- High/Low Technology intensive
- Sector of activity
- Size of the company

### NBR Survey:

What are the most pressing problems your company has faced in the past 12 months?  
(Access to finance)

Evaluate the impact:  
1-very high; 2-high; 3-moderate;  
4-low; 5-very low;

### Dependent variable:

Access to finance is a pressing problem – own evaluation:

1 (and 2)-  
Very high

3-  
Moderate

(4 and) 5-  
Very Low

# Firms' characteristics influencing access to finance

## Methodology and data

***Ologit* fits ordered logit models of ordinal variable (the problem of access to finance) on the independent variables**

The probability of a given observation for ordered logit is

$$p_{i,j} = \Pr(y_i = i) = PR(k_{i-1} < x_i\beta + u \leq k_i) \\ = \frac{1}{1 + \exp(-k_i + x_i\beta)} - \frac{1}{1 + \exp(-k_{i-1} + x_i\beta)},$$

where  $k_0$  is defined as  $-\infty$  and  $k_k$  is defined as  $+\infty$

The model was calibrated so that only coefficients significant at a level of 0,01 were selected.

# Results (I)

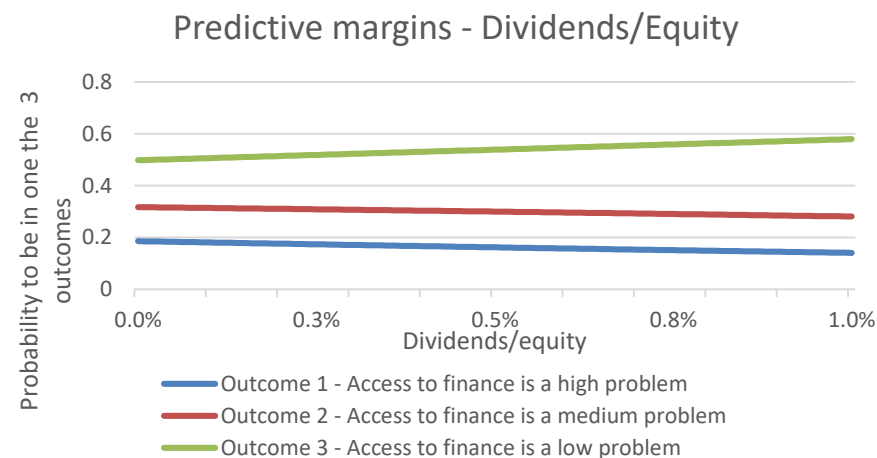
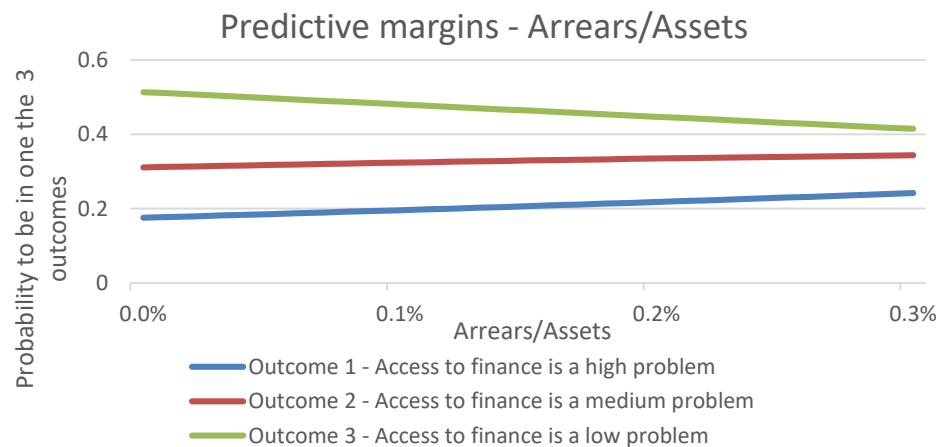
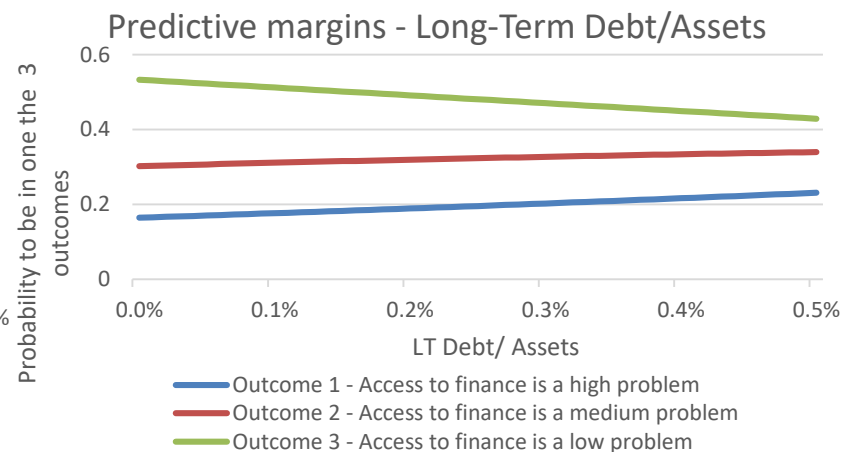
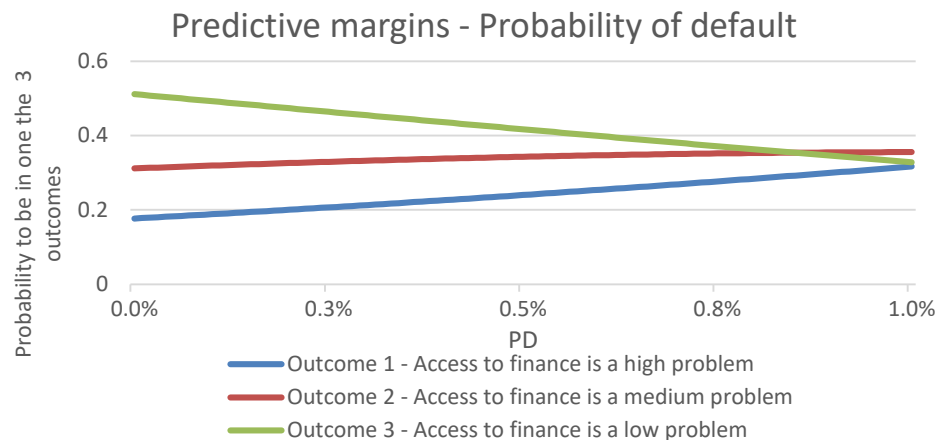
Variables	Coefficients	
	SME only	Non-financial corporates
<i>PD</i>	-0.793***	-0.856***
<i>Dividends/Equity</i>	0.342***	0.339***
<i>Arrears/Assets</i>	-1.383***	-2.014***
<i>Payment incidents</i>		-0.309***
<i>Credit/capital</i>	-0.279***	-0.287***
<i>Long-Term Debt/Assets</i>	-0.870***	-0.872***
<i>Short-Term Debt/Assets</i>	-0.693***	-0.491***
<i>Stocks/Assets</i>		-0.340***
<i>Days Receivables outstanding</i>	-0.00184***	-0.002***
<i>Liquidity</i>		0.054***
<i>Net Profit/Employees</i>	0.081***	0.089***
<i>Dummy_sector_Industry(manufact.)</i>	0.316***	0.320***
<i>Dummy_sector_Constructions</i>	-0.233***	-0.297***
<i>Dummy_sector_Trade</i>	0.285***	0.251***
<i>Dummy_sector_Services</i>	0.396***	0.279***
<i>Dummy_size_medium</i>	0.120***	0.114***
<i>Dummy_High-Tech</i>	-0.160***	-0.136***
<i>Dummy_Restruct</i>	-0.340***	-0.384***
<i>Dummy_SME</i>		-0.424***

\*\*\* p<0.01

## Results (II)

- Probability of default is a good indicator in what concerns the capability of a firm to obtain a loan, as well as indebtedness. Companies need a good level of solvability in order to access credit.
- The degree of technology has a moderate role in perception of access to finance as a problem. High-tech firms see this issue more as a problem compared to low-tech firms. This may be explained by the capital structure of tech firms and the lack of fixed assets
- Large positive influence (access to finance is not a pressing problem) is seen for SMEs in Services, Trade and Manufacturing
- Companies with higher dividends allocation see the issue of access to finance not as stringent as those with lower ratios

## Results (III)



# Conclusions

- There have been many policies implemented in EU for SME support and ***access to finance has been one of the most important SBA principles***. In Romania, access to finance was not the main focus for SME regulation.
- The empirical evidence shows that firms perceive access to finance as a problem as their balance sheet soundness becomes more vulnerable. In order to increase financial inclusion, **over-indebtedness should be avoided**.
- Risk-related indicators (mainly probability of default and indebtedness) show that **access to finance depends on solvability and financial soundness**.
- **Structural reforms** that would improve SMEs' balance sheet vulnerabilities, as well as **payment discipline may help expand the coverage of banking services** across the NFC sector in Romania and **enhance financial inclusion**.



Thank you.