

# Bank Financing for SMEs

Thorsten Beck



# A quick overview

- Do SMEs matter and how?
- SME growth and finance
- Why are SMEs left out?
- Policies to foster SMEs' access to finance

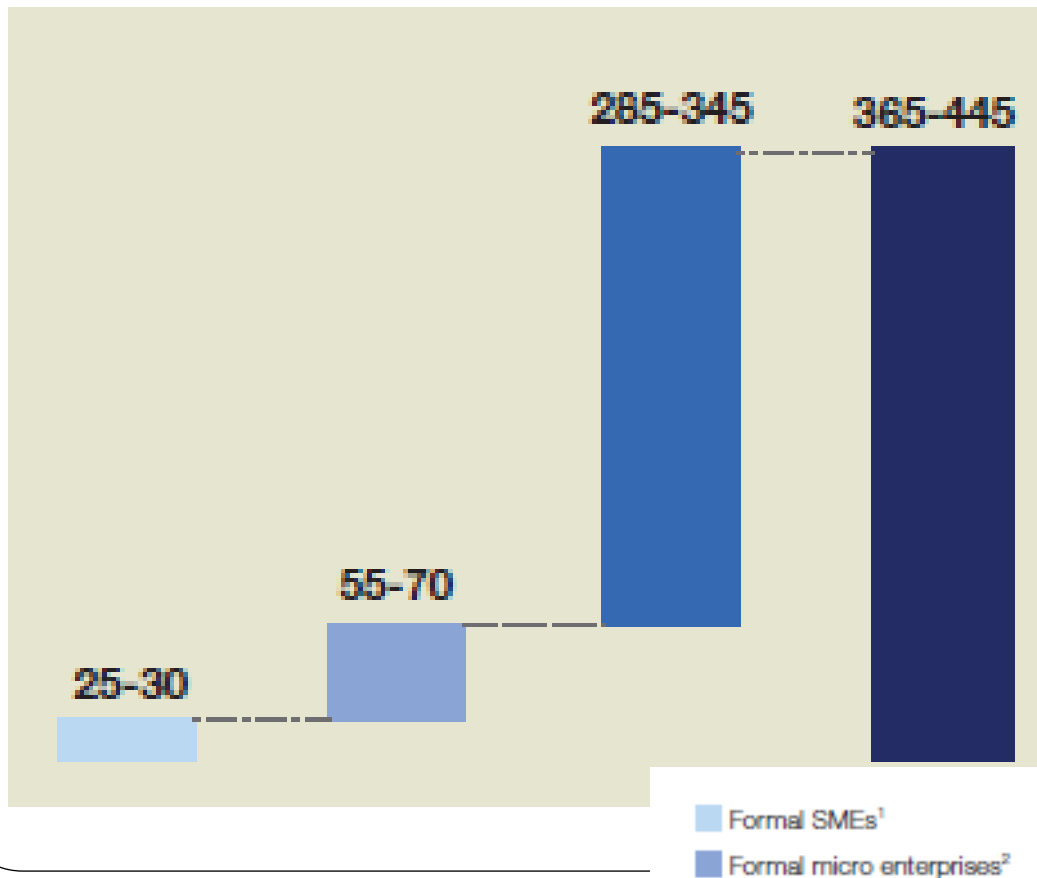
# A quick overview

- Do SMEs matter and how?
- SME growth and finance
- Why are SMEs left out?
- Policies to foster SMEs' access to finance

# Do SMEs matter?

Number of enterprises by segment and formality in emerging markets

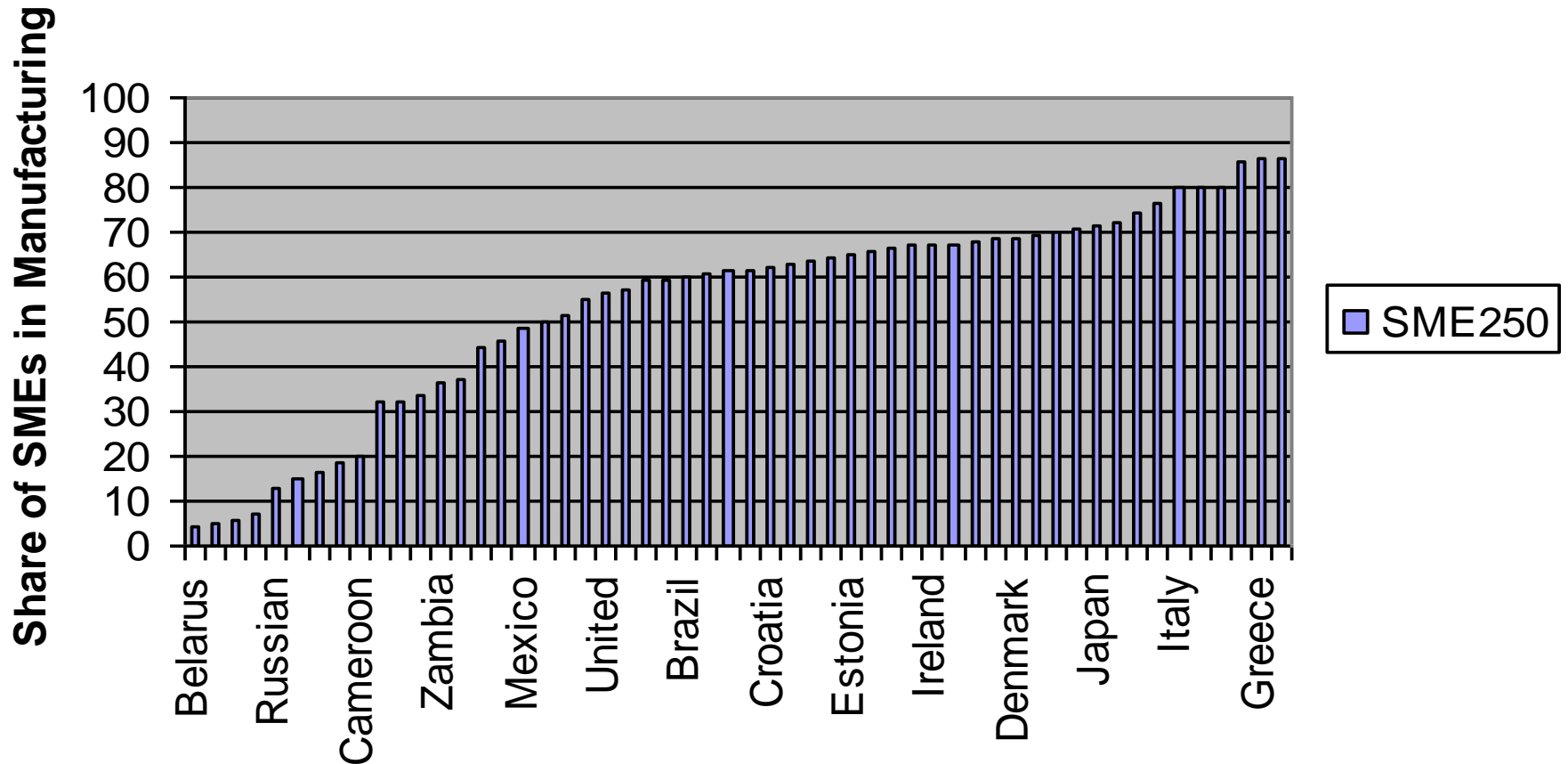
Millions



Source: Stein, Goland  
and Schiff (2010)

# Do SMEs matter?

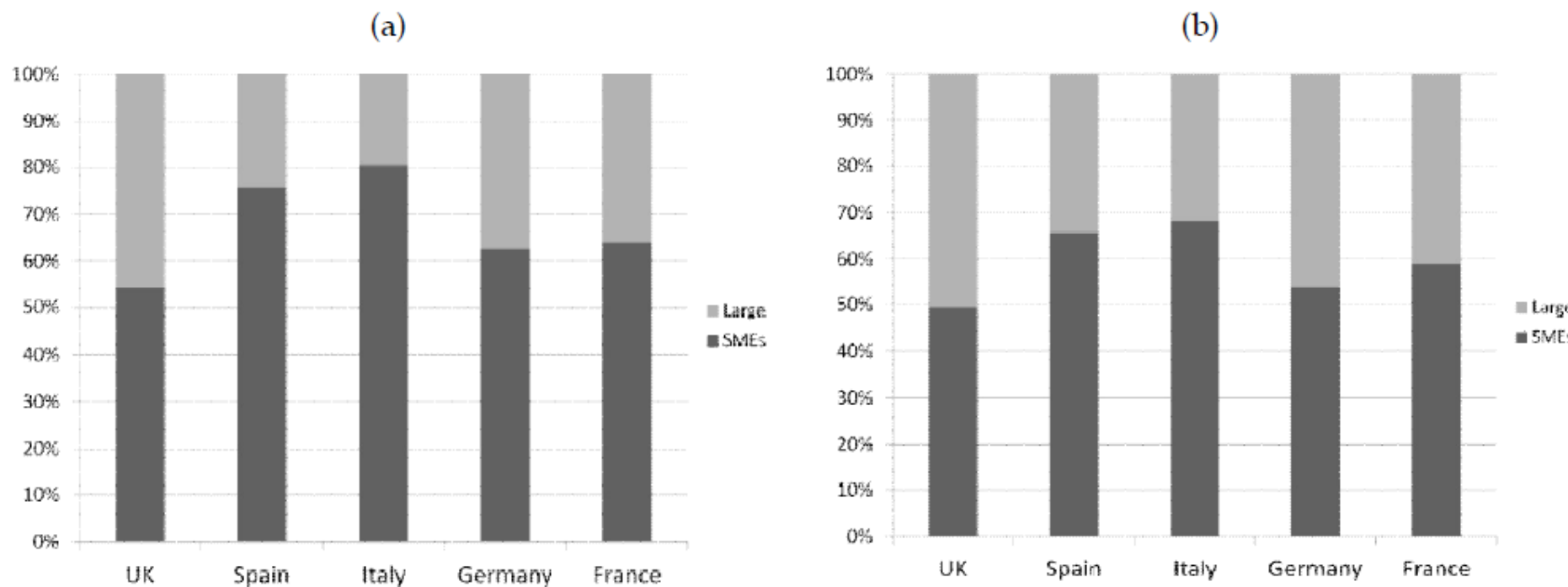
## Share of SMEs across Countries



Source: Ayyagari, Beck and Demirguc-Kunt(2007)

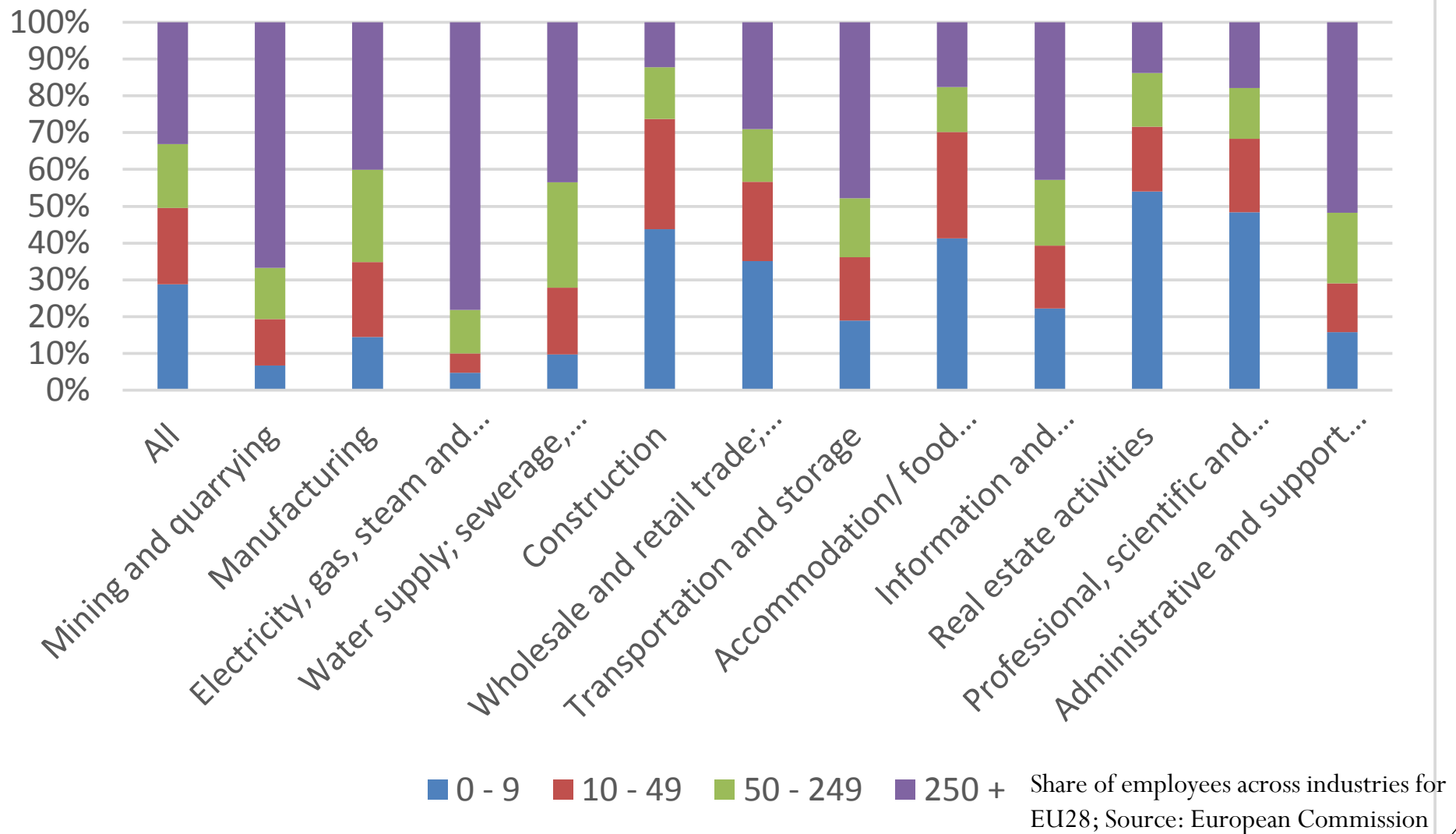
# Importance of SMEs – in Europe

*Figure 1. Employment (a) and value added (b) by country, 2011 (% of total)*



Source: European Commission

# SMEs are important across sectors...



# Do SMEs promote growth and alleviate poverty?

- Pro-SME view
  - SMEs enhance competition and entrepreneurship
  - SMEs are generally more productive but constrained by market failures
  - SME expansion boosts employment
- SME skeptics
  - Large firms may be more innovative and productive since they can afford R&D costs
  - Firm size is not necessarily exogenous; it may be optimal to remain small.
  - SMEs are neither more labor extensive, nor better at job creation. Large firms provide higher quality jobs.
  - Focus should be on business environment for all firms



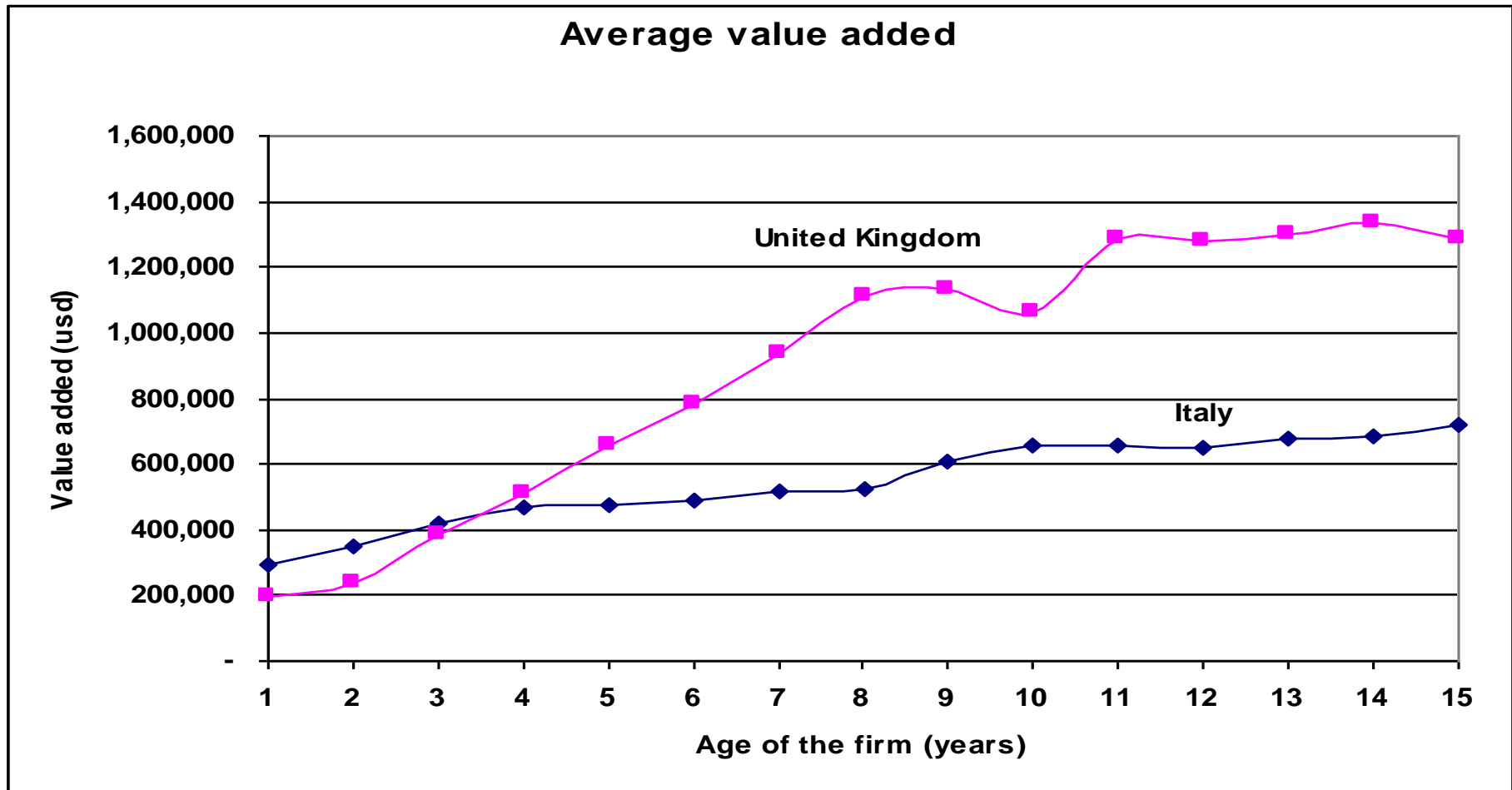
# SME and job creation

- Early work: small firms more labour-intensive and create more jobs (Birch, 1979)
- Higher gross job creation but same net job creation in SMEs (Davis et al., 1993)
  - Higher gross job creation off-set by higher failure probability for small enterprises
- Evidence for Africa: larger firms account for majority of job creation (Biggs and Shah, 1998)
- Variation over business cycles – more self-employed during recessions
- Gross vs. net creation of jobs
- Question is demanding for data – need panel data controlling for survivor bias and composition effects
- Do SME jobs really help the poor
  - Evidence from Bangladesh suggests otherwise (Bauchet and Morduch, 2011)

# Do SMEs cause growth?

- Beck, Demirguc-Kunt and Levine (2007)
- Although there is a positive and strong association between SMEs and growth in GDP per capita, this is a correlation, not a causal relationship
- A large SME sector is a characteristic of fast-growing economies but not a cause of their rapid growth
- A larger SME sector does not necessarily indicate a dynamic SME sector, but rather may be reflection of poor business environment where firms cannot grow
- In some environments it may be optimal to remain small.
- We care about new entry and growth potential of SMEs!

# SMEs, entry and exit of firms

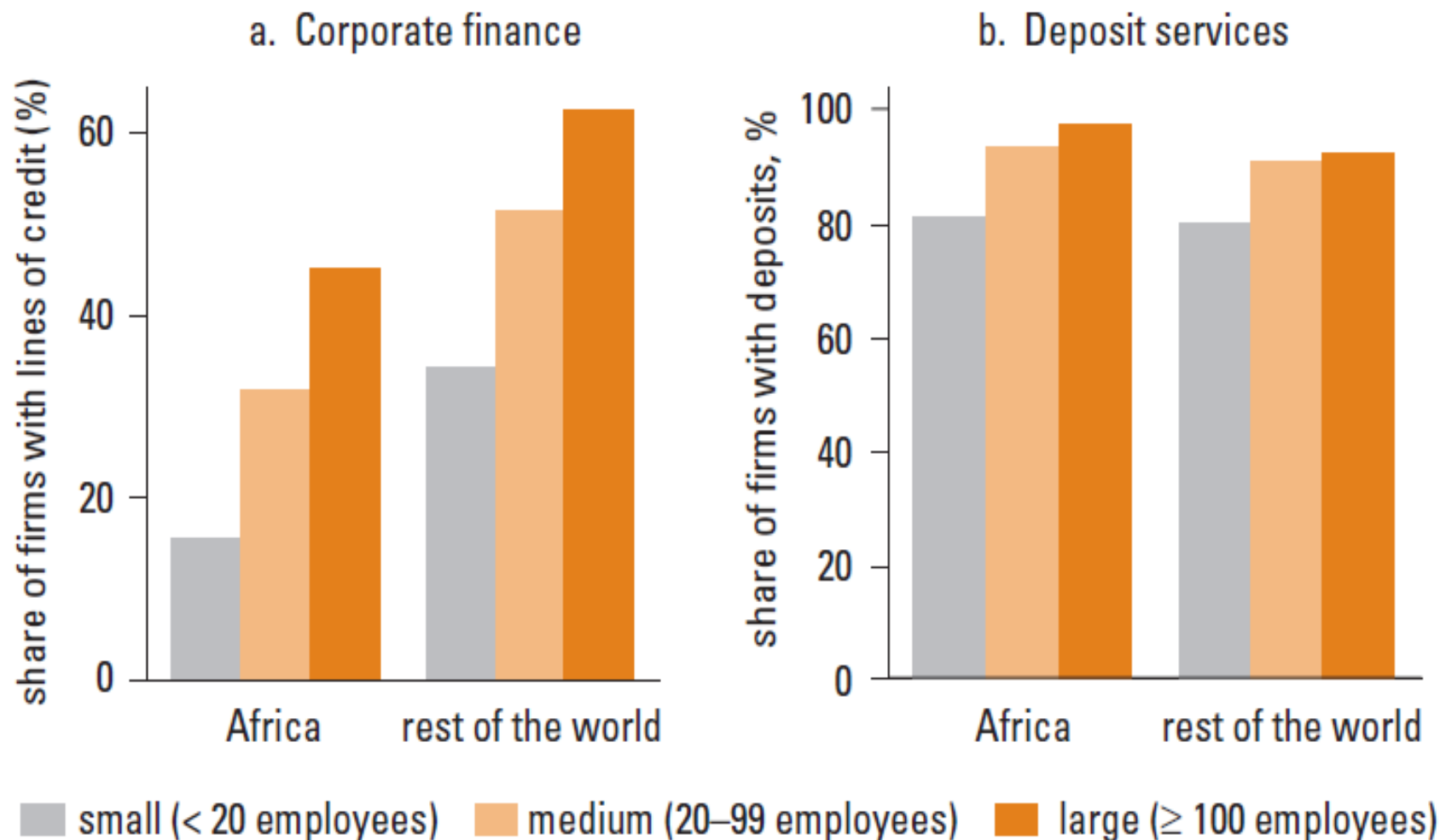


Source: Klapper, Laeven and Rajan (2006)

# A quick overview

- Do SMEs matter and how?
- SME growth and finance
- Why are SMEs left out?
- Policies to foster SMEs' access to finance

# Access to finance – the size gap



Source: Beck, Maimbo, Faye and Triki (2011)

# Significant credit gap for SMEs in developing countries

Bar graphs refer to millions of MSMEs in the region (informal and formal)

Number of MSMEs (Millions)

Value of MSME credit gap \$bn

% MSMEs that need but have neither a loan nor an overdraft

Total

With deposit accounts

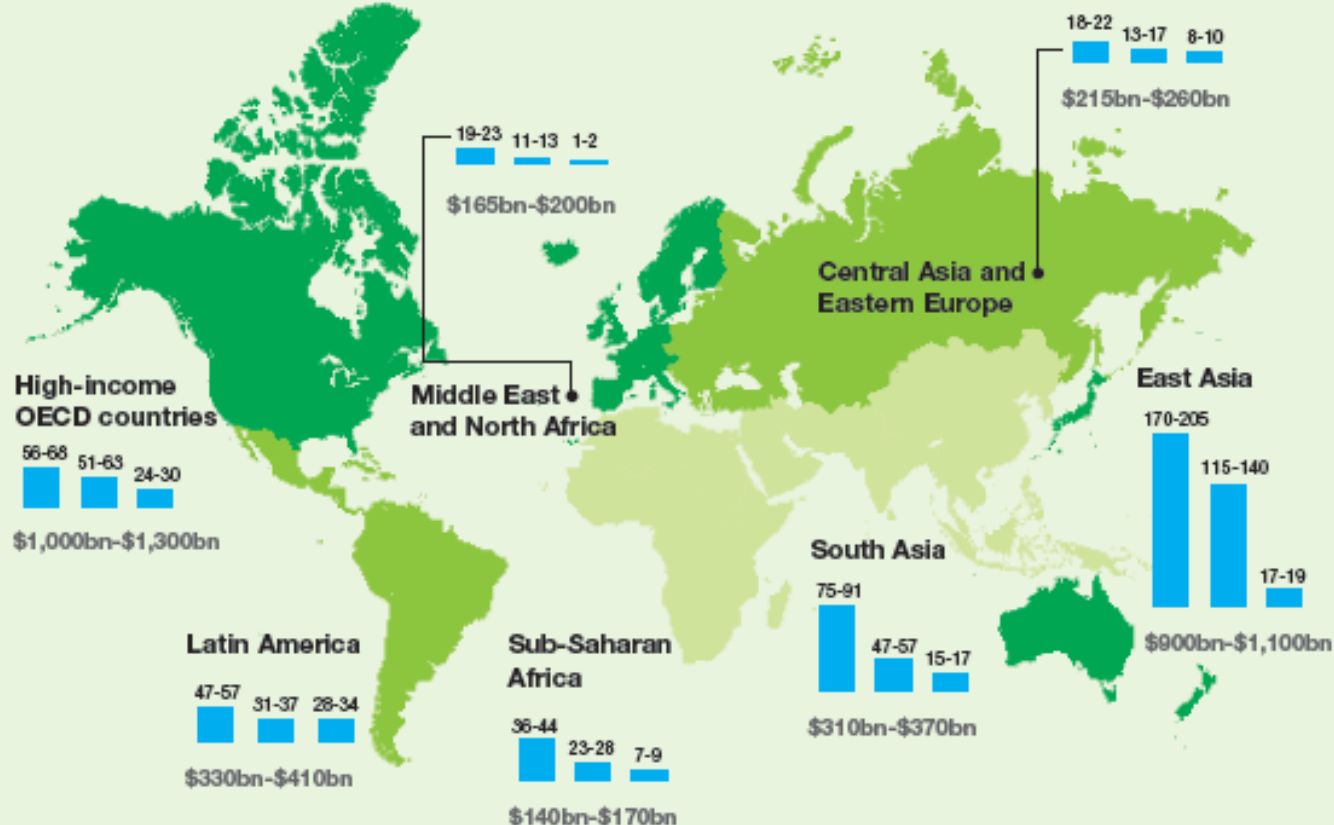
With loans or overdrafts

<20

20-39

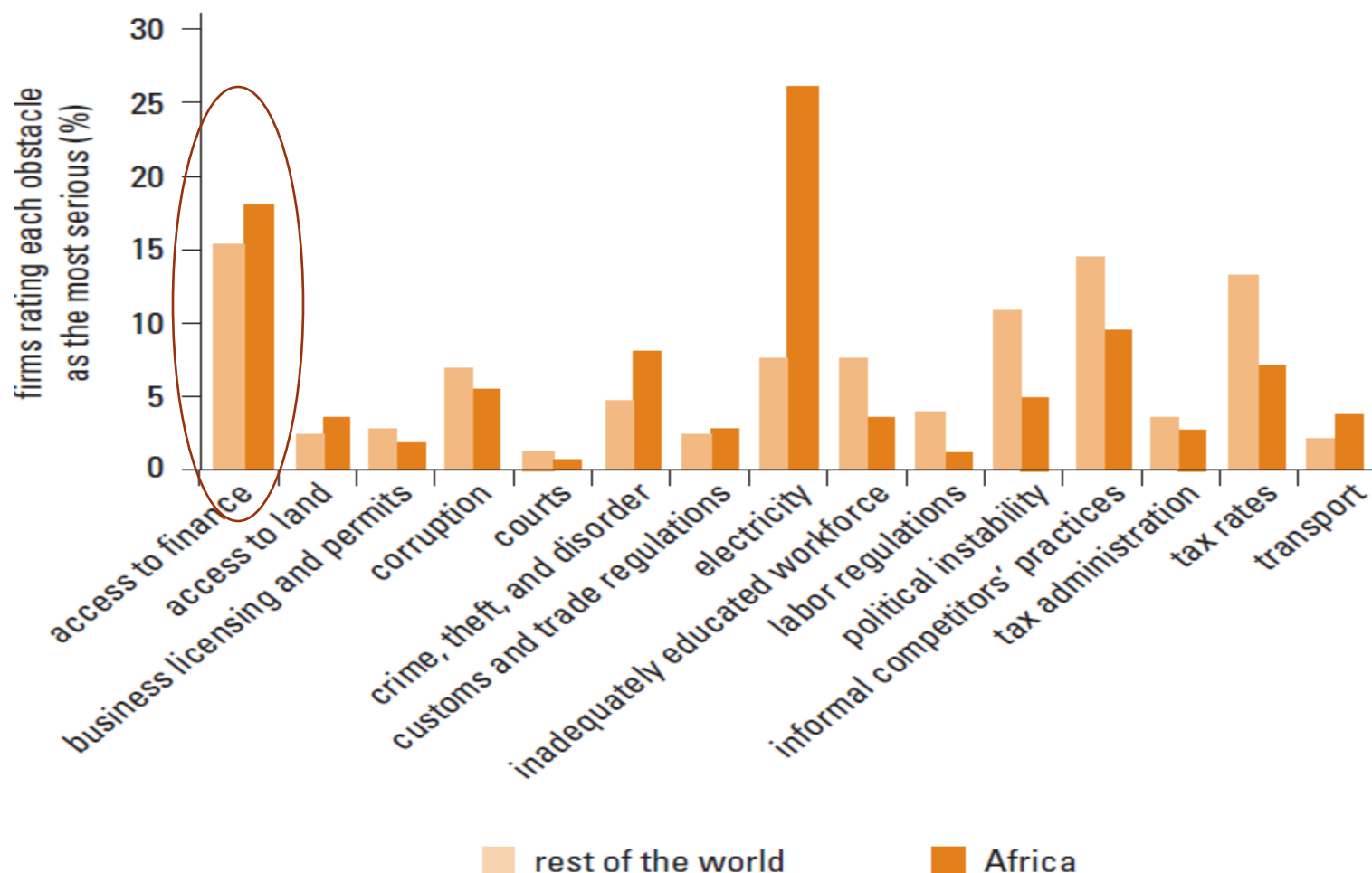
40-59

>59



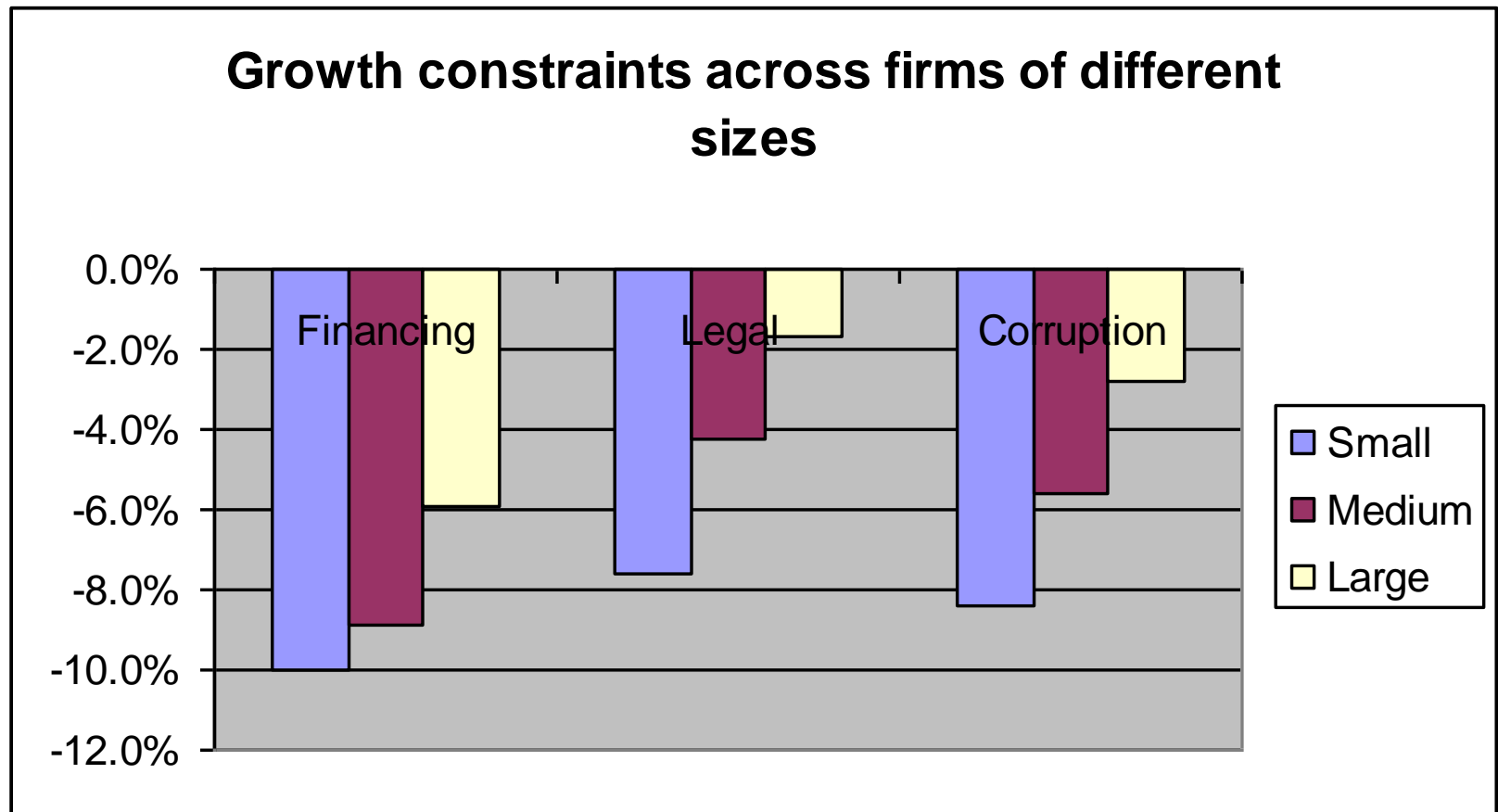
Source: Stein, Goland and Schiff (2010)

# Financing is an important obstacle



Source: Beck, Maimbo, Faye and Triki (2011)

...and these obstacles are more binding for SMEs

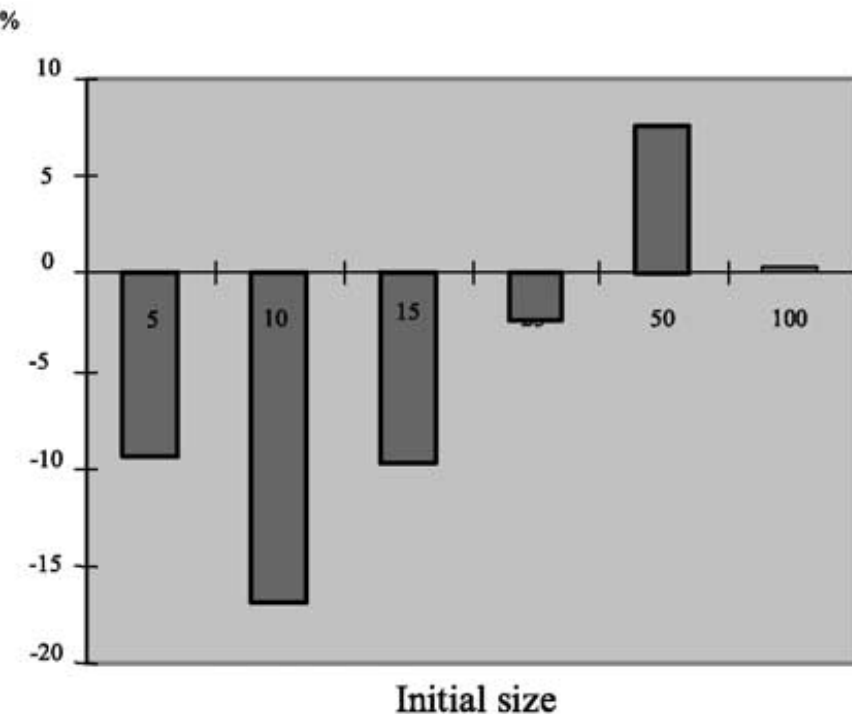


Source: Beck, Demirguc-Kunt and Maksimovic (2005)

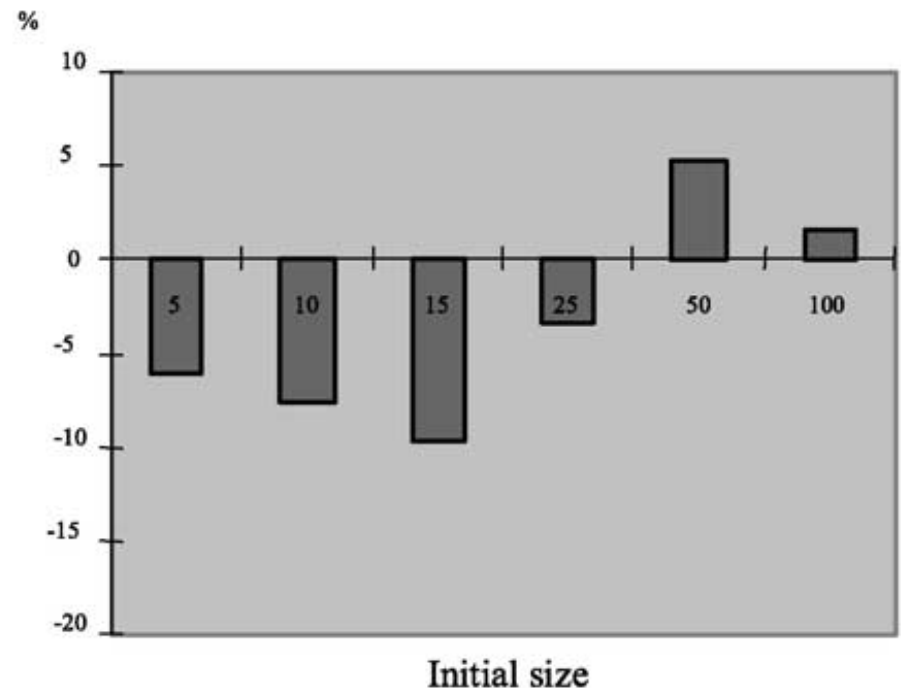


...which can result in a missing middle

**A. first 5 years**



**B. first 10 years**



Growth differential following initial size (average growth of Ivorian firms minus average growth of German firms).

Source: Sleuwagen and Goedhuys (2002)

# SME Finance and Growth – the link

- No growth effect from the size of the SME segment, but its dynamism
- Indirect effects through financial deepening:
  - Sound and effective financial systems benefit small firms more than large firms
  - Financial deepening allows more entrepreneurship, firm dynamism and innovation
  - Financial deepening allows better exploitation of growth and investment opportunities and achieving optimal size
  - Financial deepening allows better resource allocation, more efficient corporate organization and more formality
- Ultimately, sustainable financial deepening can contribute to job creation, through SME Finance

# SME Finance and Growth – the main channels

Theory and evidence shows:

- Financial deepening allows more entrepreneurship, firm dynamism and innovation
- Financial deepening allows better exploitation of growth and investment opportunities and achieving optimal size
- Financial deepening allow better resource allocation, more efficient corporate organization and more formality

# Finance, SMEs and the job market

- Pagano and Pica (2011): positive and significant relationship between financial development and job creation in developing countries
- Financing constraints among the most important growth constraints for SMEs
  - Ayyagari, Demirgüç-Kunt and Maksimovic, 2006
  - Beck et al. (2005, 2008)
  - Tentative evidence from Serbia (Beck, Morales and Penas, 2017)
- Quasi-randomized evidence for India, Pakistan and Sri Lanka confirms that
  - Important: partial equilibrium analysis

# A quick overview

- Do SMEs matter and how?
- SME growth and finance
- Why are SMEs left out?
- Policies to foster SMEs' access to finance

# Why are SMEs left out?

- Transaction costs
  - Fixed cost component of credit provision effectively impedes outreach to “smaller” and costlier clients
  - Inability of financial institutions to exploit scale economies
- Risk
  - Related to information asymmetries between borrower and lender
  - Ex-ante: High risk borrowers are the ones most likely to look for external finance
    - Increases in the risk premium raise the risk of the pool of interested borrowers
    - Lenders will use non-price criteria to screen debtors/projects
  - Ex-post: The agent (borrower) has incentives that are inconsistent with the principal’s (lender) interests
    - Agents may divert resources to riskier activities, loot assets, etc.
  - Heavier reliance on collateral
- These challenges arise both on the country- and bank-level
- SMEs therefore often squeezed between retail (large number!) and large enterprise finance (more manageable risk, scale)

# Unpacking the universe of SMEs

Different segments to be distinguished

- Microenterprises: informal, household- or family based
- Small enterprises – formal; often “missing middle”
- Medium-size enterprises: aspiring, export-oriented etc.

Differentiation between subsistence and transformational enterprises is critical for

- Discussion on job creation
- Interventions and policies for easing financing constraints

We need different policies and approaches for these different groups!

# A quick overview

- Do SMEs matter and how?
- SME growth and finance
- Why are SMEs left out?
- Policies to foster SMEs' access to finance



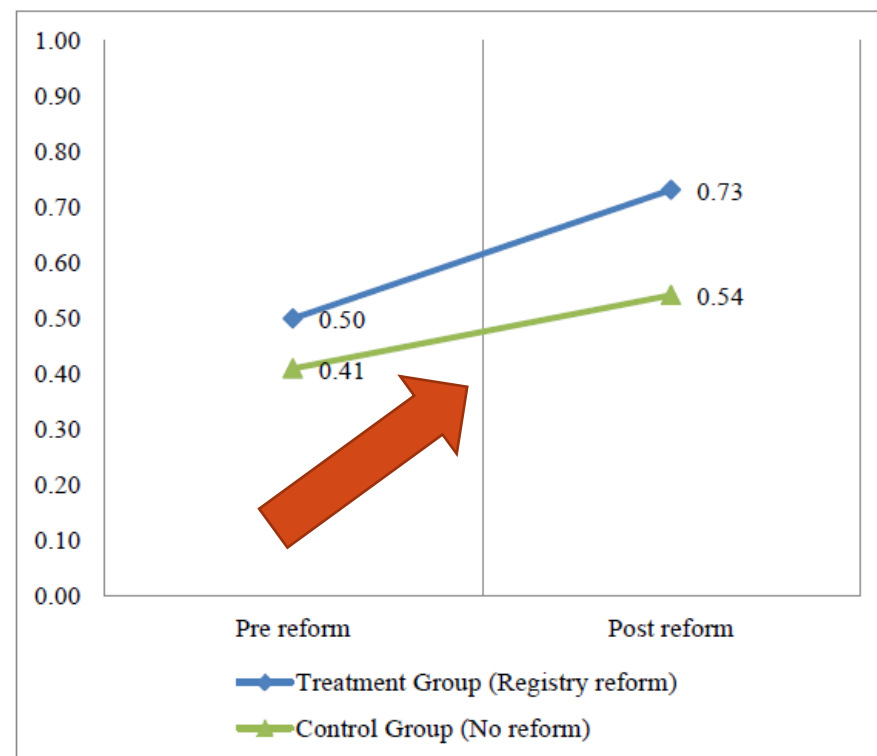
# Policies and institutions to ease small firms' financing constraints

- Institutional framework
  - Creditor rights, contract enforcement
  - Collateral registries
- Transparency
  - Credit information sharing (e.g.: Central and Eastern Europe)
    - Reputation collateral
    - Reduction in informality
  - Accounting and auditing standards
- Banking market structure and competition
  - No clear mapping from ownership structure into successful SME outreach
  - But lack of competition can undermine SME lending
    - Easier to lend to corporates, consumers and governments
    - No need to innovate

# Market-developing policies

- **Institutional Framework**

- Introduction of **credit registries or bureaus** → positive impact on lending to SMEs (Brown, Jappelli and Pagano (2009) with smaller and more opaque enterprises benefiting more (Love and Mylenko, 2003).
- Positive effect of introducing **movable collateral registries** on firms' access to finance, an effect stronger among smaller firms (Love, Martínez Pería, and Singh (2012)); Campello and Larrain (2014)



# Competition and market structure

- Market efficiency view vs. dynamic relationship view
  - More competition, lower interest rates, expansion of lending to smaller enterprises
  - Need monopolistic power to justify investment in relationship with small enterprises
- Mixed empirical evidence
  - Cetorelli and Gambera, 2001; Bonacorsi di Patti and Dell'Ariccia, 2004
  - Beck et al., 2004; Black and Strahan, 2002
- Challenge: competition vs. market structure
  - How do we measure competition?
  - Market structure measures vs. behavioural gauges vs. contestability
- Related to this: bank size and bank hierarchical structures
  - Lending techniques, see further below

# Bank ownership and SME finance

- Foreign banks: contradictory theoretical work
  - Innovation, efficiency and competition
  - Cherry-picking and cream-skimming
- Mixed empirical evidence
  - Clarke et al. (2006)
  - Mian (2006)
  - ...
- Differential effect according to institutional framework
  - Bruno and Hauswald (2013)
  - Claessens and van Horen (2014)
- Do foreign banks foster entrepreneurship?
  - Evidence in favour for CEE: Giannetti and Ongena (2012)
  - Tentative evidence in favour cross-country: Alfaro, Beck and Calomiris (2017)

# Access to credit: the role of government

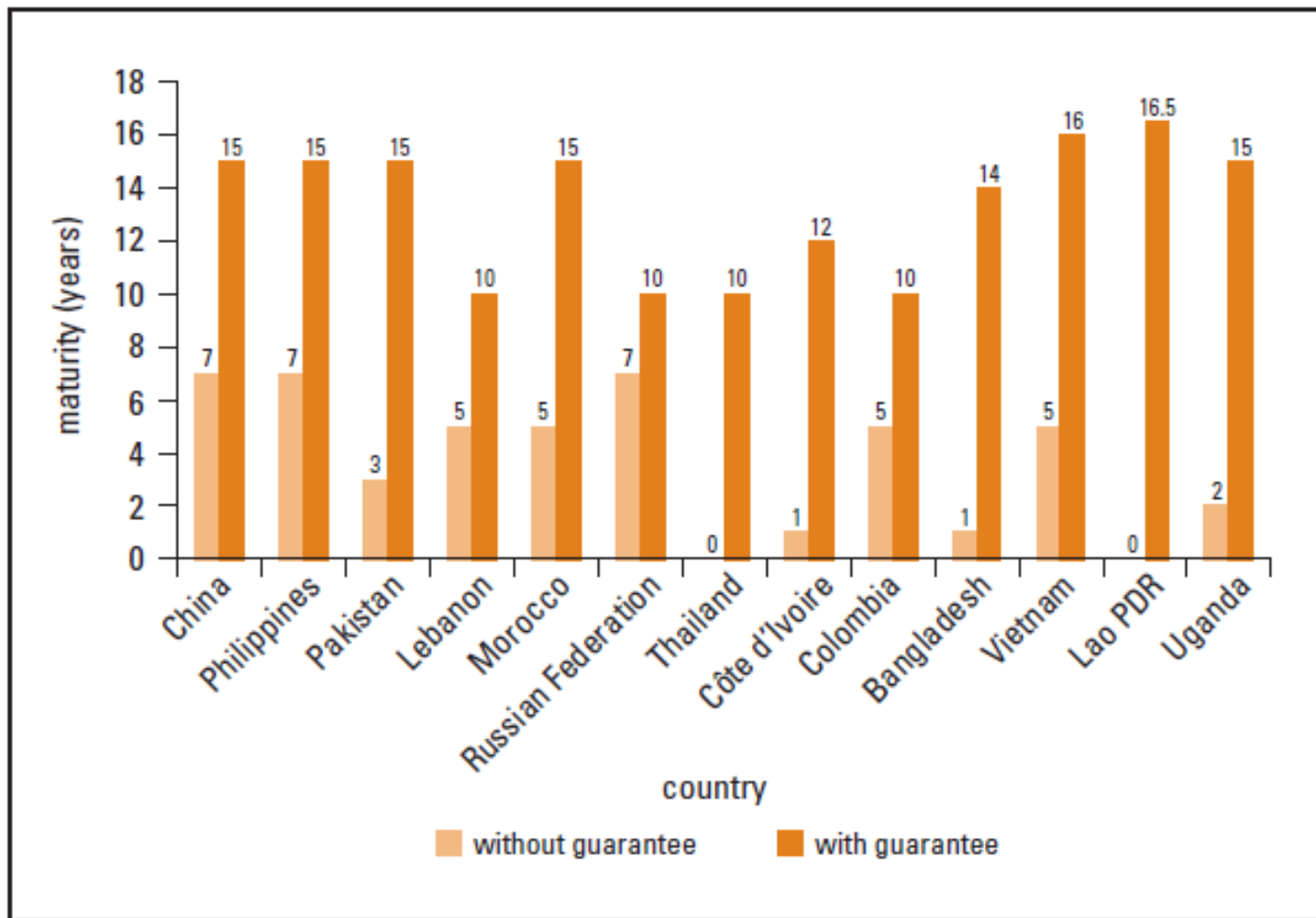
- Beyond building institutions
- Rather negative evidence on government ownership of banks, especially on credit side (limited effectiveness at cost of fragility and resource mis-allocation)
- Focusing on contestability of financial markets
  - Low entry barriers
  - Infrastructure open to all financial institutions
  - No regulatory barriers to innovation
- Pro-market activism
  - Do not replace markets, but help overcome market failures
  - Well-designed, limited (time, resources etc.) interventions might help
  - Demonstration effect for private sector
  - Trial and error, no one size fits all
  - Providing infrastructure, overcoming scale problems
    - Post offices as platform for financial service provision
    - Reverse factoring platforms
  - Subsidizing transaction costs of financial institutions (but not interest)
  - Partial credit guarantee schemes

# Partial credit guarantee schemes

- Idea: overcome agency problems between lender and borrowers
- Sustainability vs. additionality
- Devil is in the detail
- Few rigorous assessments: Chile, France, US
  - Lelarge, Sraer, and Thesmar (2010), Bach (2014), Brown and Earle (2017)

# Guarantees can be one (!!!) solution

Figure 4.10 The Effects of Guarantees on Loan Maturity



Source: Fall (2010).

# Financial innovation to overcome barriers

- Increase information
  - UID program in India, link unique ID to credit information
  - FIP in Indonesia
- Reduce distance between bank and client
  - Mobile banking (e.g. Kenya)
  - Agency model (e.g. India)
- Look beyond traditional banks for financial service provision
- Look beyond banking and debt
  - OTC equity exchange for India – for mid-sized companies
  - Private equity, venture capital, angel financing (diaspora resources, remittances?)



# Why alternative finance?

- Back to basics in financial intermediation
  - Transaction costs
  - Risk management
- Digital finance allows overcoming both cost and risk barriers
  - E.g., transaction costs in payments (mobile money, blockchain)
  - E.g., risk management in lending with big data
- Part of larger phenomenon of financial innovation
  - New delivery channels
  - New products
  - New intermediaries and markets

# Benefits of mobile money not just for households, but also enterprises: Example of Kenya

Figure 1: Share of businesses using mobile money to pay to their suppliers according to credit relationship with suppliers



- Use of M-Pesa to pay suppliers allows entrepreneurs to avoid risk of theft, thus risk of non-payment, resulting in higher probability and amount of trade credit
- Availability of trade credit makes take-up of M-Pesa more attractive
- Beck, Pamuk, Ramrattan, and Uras (2016)

# Look at demand-side constraints

- Financial literacy
  - Financial awareness of products and options
  - Financial capability
- Accounting and auditing standards
- Business development services — turn investment into bankable projects
- Don't ignore non-financial constraints
- **Still looking for the holy grail....**

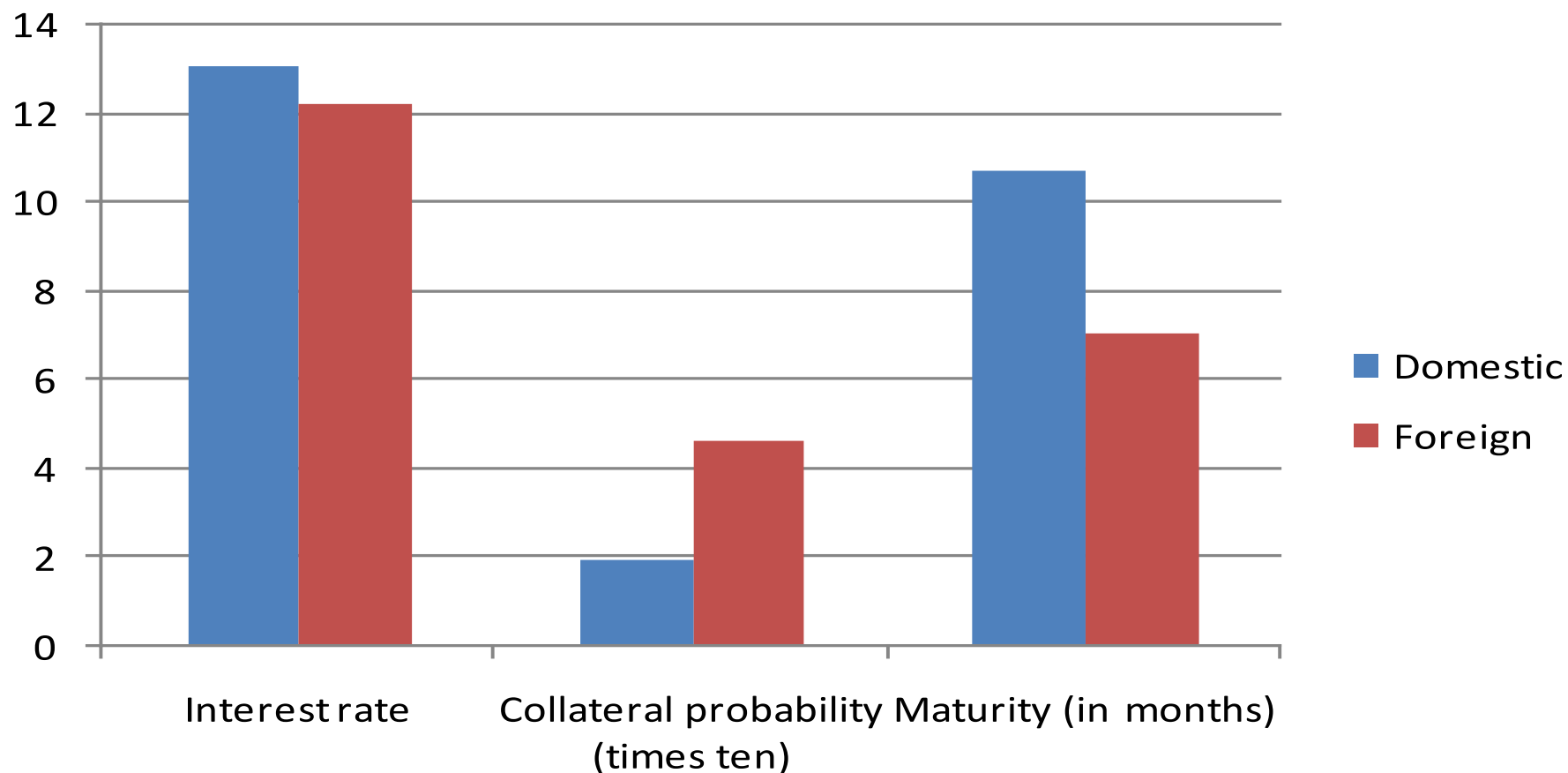
# Who finances SMEs and how?

- Limited financing sources – mostly banks, limited if any access to capital market
  - Demand-side constraints: resistance against sharing control
- Supplier credit, internal finance
- Bank lending: relationship vs. transaction based lending
  - ✓ **Relationship**: bank repeatedly interacts with clients in order to obtain and exploit proprietary borrower information (“soft” information)
  - ✓ **Transaction**: typical one-off loans where bank bases its lending decisions on verifiable information and assets (“hard” information)
- Relationship lending traditionally seen as appropriate tool for lending to SMEs as they tend to be more opaque and less able to post collateral
- Recently transaction lending proposed as alternative lending technique, especially useful for larger and non-local banks
- Important question: who uses which type of lending technique: small vs. large; domestic vs. foreign

# Relationship vs. transaction-based lending: the evidence

- Cross-country and country-specific evidence shows banks use both relationship and transaction based lending techniques
- Different banks use different techniques:
  - Large and foreign-owned banks use predominantly transaction-based lending
  - Domestic and smaller banks use predominantly relationship lending
- Country-level evidence for Bolivia shows that foreign banks use transaction-based and domestic banks relationship-based lending for the same client group
- Evidence speaks for a diverse banking sector with different approaches to SMEs
- Evidence on Central and East Europe: a higher share of relationship-based lender reduces access to credit for SMEs less during recession; no difference in boom periods (Beck et al., 2017); similar finding for country studies on Italy (Bolton et al., 2016; Presbitero et al., 2014)
  - Important side note: not clear mapping of foreign/domestic with relationship and transaction-based lender in CEE

# Relationship vs. transaction-based lending – evidence from Bolivia



# Relationship vs. transaction-based lending over the business cycle

Beck, Degryse, de Haas and van Horen (2017)

- During a credit boom, SMEs' credit constraints do not depend on the local presence of relationship vs. transaction lenders
- But relationship lending alleviates firms' credit constraints during a cyclical downturn
  - ✓ Consistent with learning-effect: banks use the information that they generate during interactions with clients in tranquil times to continue lending in crisis times
- This positive impact is especially strong for small and opaque firms, firms with no other sources of external finance or that lack tangible assets
- Firms in regions where the downturn is more severe benefited more from the presence of relationship banks
- Not an evergreening effect, but liquidity support mechanism (unlike evidence from Japan)

# Looking beyond banks

## **Secondary or alternative tiers of capital markets**

- Works best in financial systems, which already have deep capital markets

## **Private equity, venture capital, angel financing**

- Seems a good idea for mid-sized firms that do not have scale or track record to tap public equity or debt
- Large literature on (mostly positive) effect of equity funds on firm-level outcomes for the U.S.
- Limited evidence for other countries
- Mezzanine financing forms
- Often regulatory restrictions; scale problems

## **New financing arrangements:**

- Crowd funding
- Peer-to-peer lending
- Jury still out: enough scale, risk management?
- Regulatory implications (new forms of shadow banking?)



# Looking forward

## Need more evidence-based policy making

- Different methodologies for different questions
  - Policy and institutions: cross-country/reform implementation
  - Financial innovation: on financial institution level
- Understanding SMEs' financing constraints and how to alleviate them
  - Co-ordinated Country Case Studies - Innovation and Growth, Raising Productivity in Developing Countries (DFID funded)
  - Research in Southeast Europe and Caucasus: role of collateral and maturity structure on small enterprises' investment choices (funded by EFSE)
- Microcredit vs. small business lending
  - What can one learn from the other?
- More focus on demand-side constraints – looking beyond the firm to the entrepreneur

# Conclusions

- SMEs are the private sector of developing countries
- Critical to differentiate between different segments of the SME population
  - Different financial service providers: banks, MFIs, capital markets
  - Different lending techniques and complementary services: technical training, business development
- Policy levers on different levels:
  - Long-term institution building
  - Competition and innovation
  - Providing the market a helping hand

# Thank you

**Thorsten Beck**

**[www.thorstenbeck.com](http://www.thorstenbeck.com)**



**CASS**  
BUSINESS SCHOOL  
CITY, UNIVERSITY OF LONDON  
— EST 1894 —