



# Finance to SMEs in Japan and Asia

The views expressed in this presentation are those of the author and do not necessarily represent those of the IMF or IMF policy.

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January 27, 2014

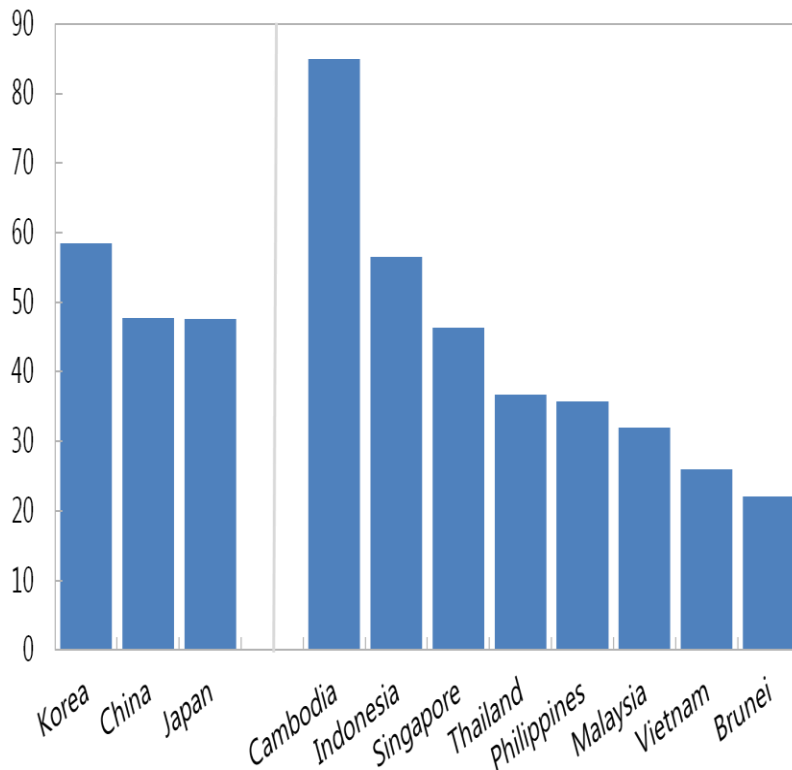
# Outline

- Contribution of SMEs to an economy
- Challenges to SME financing
- Credit Information Issues
- Design of Risk Sharing
  - Debt Financing: Public Credit Guarantees and Collateral
  - Equity Financing: Risk Capital

# SMEs' contribution to an economy in Asia: GDP and employment

## Contribution to GDP of SMEs

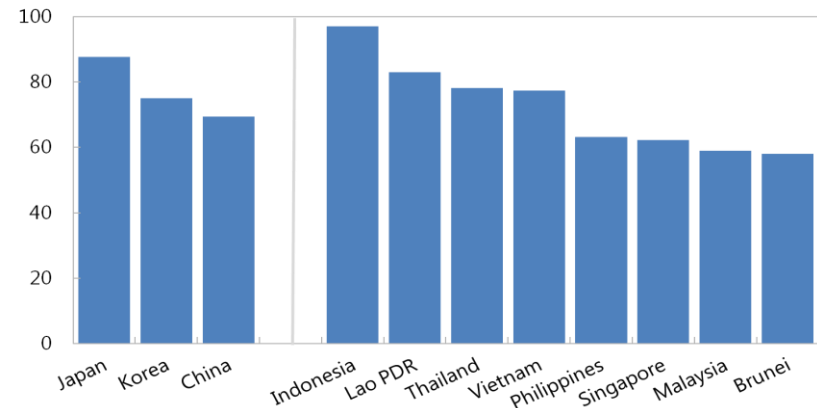
(In percent; and in year of latest available data)



Sources: Asian Development Bank (Shinozaki, 2012)

## Number of Employees of SMEs

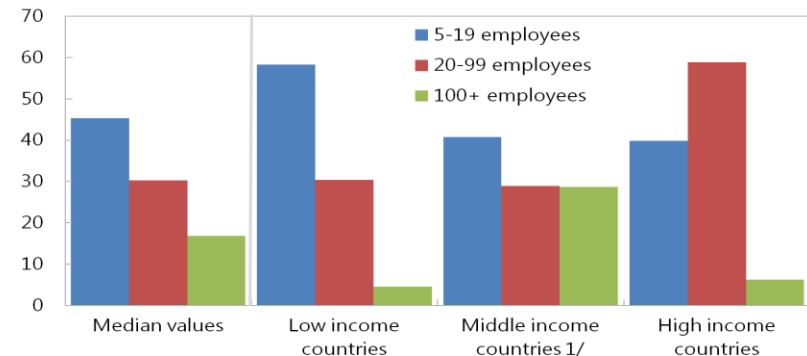
(In percent of total employees; year of latest available data)



Sources: Asian Development Bank (Shinozaki, Dec 2012)

## Job creation shares by firm size and country income

(In percent of total job creation; out of 85 countries)



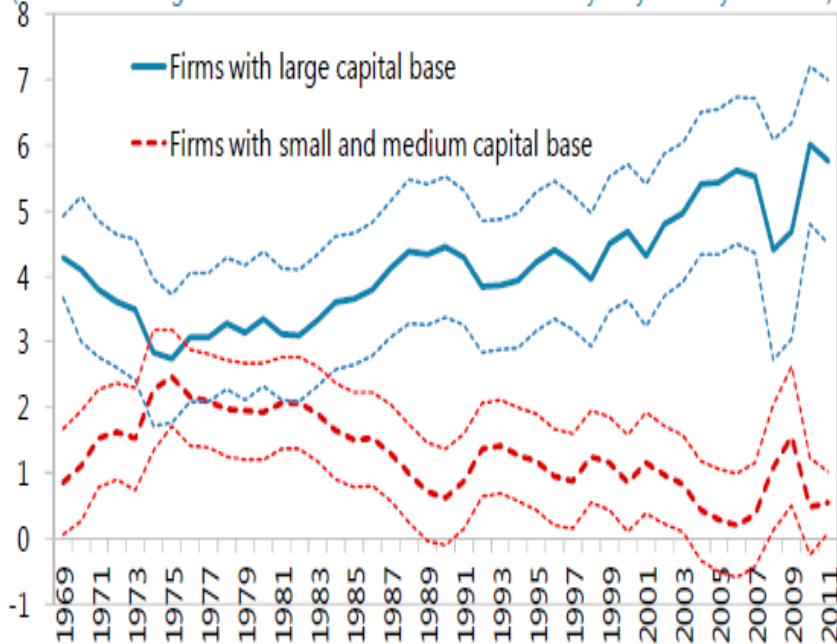
Sources: World Bank (2011, Ayyagari et al)

1/ average of lower-middle income and upper-middle income countries

# Challenges to SMEs: low profitability

## Estimated Coefficients of Impact on Adjusted Net Profit by Firm Size

(after accounting for time trend based on coefficients of yearly dummy variables)



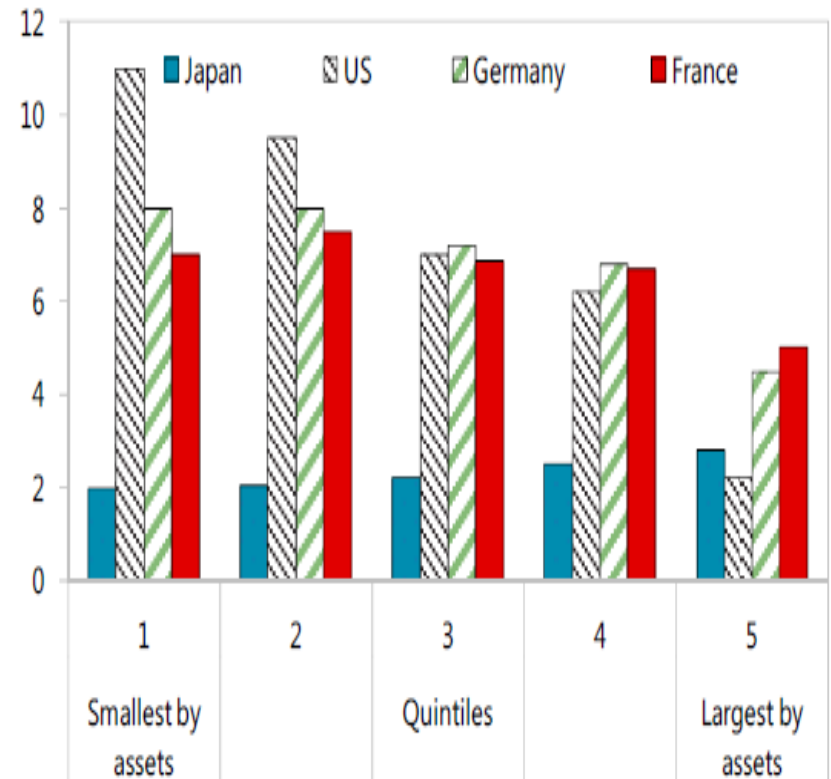
Sources: Authors' estimates based on MOF data.

1/ Firms with large capital base refer to firms with capital of ¥1 billion or more, while firms with medium capital base have between ¥100 to ¥1000 million yen and between ¥10 to ¥100 million for firms with small capital base. See Ministry of Finance for definition.

2/ Dotted lines refer to standard errors of the estimated coefficients.

Source: W. R. Lam and J. Shin (2012)

## Cross-country Comparison of Return on Assets, by Firms' Assets Size (in percent)

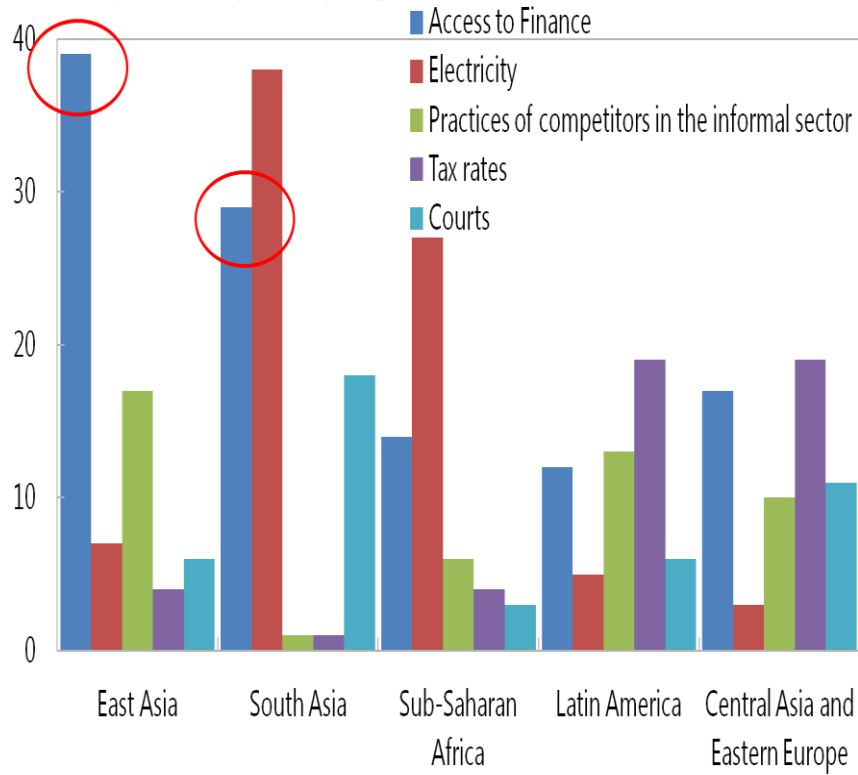


Source: Tokuda (2011) based on MHRI and Bureau van Dijk, ORBIS.

# Challenges to SME: SME financing gap

## Obstacles to growth of SMEs

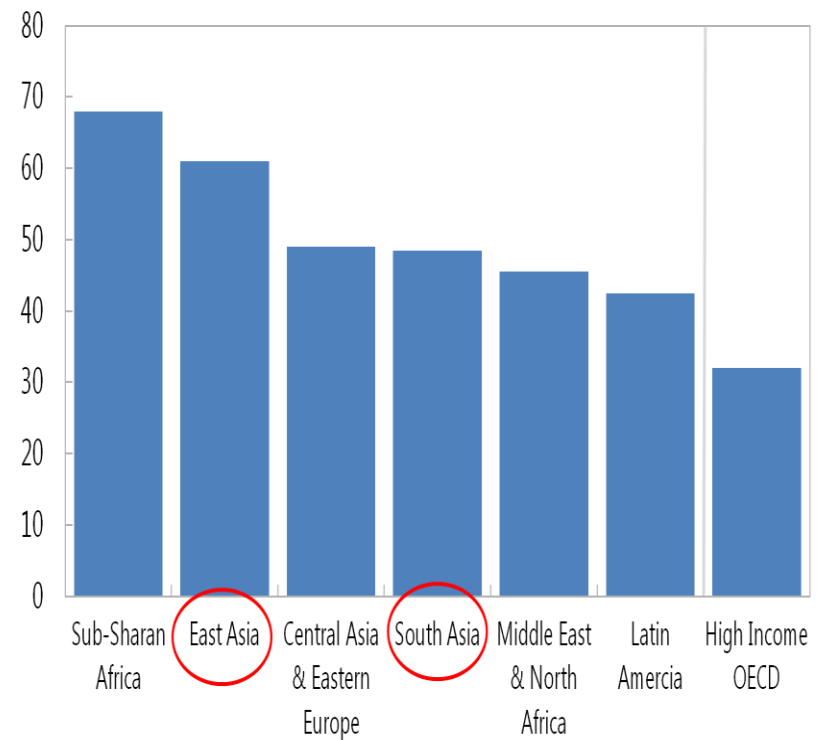
(In percent of respondents per region, percent)



Sources: IFC/Worldbank Enterprise Survey 2006-10; and Mckinsey (2012)

## Portion of under-served or unserved SMEs 1/

(In percent of total SMEs)



Sources: IFC/WorldBank MSME database 2011 and Mckinsey (2012)  
1/ median value of estimated portion

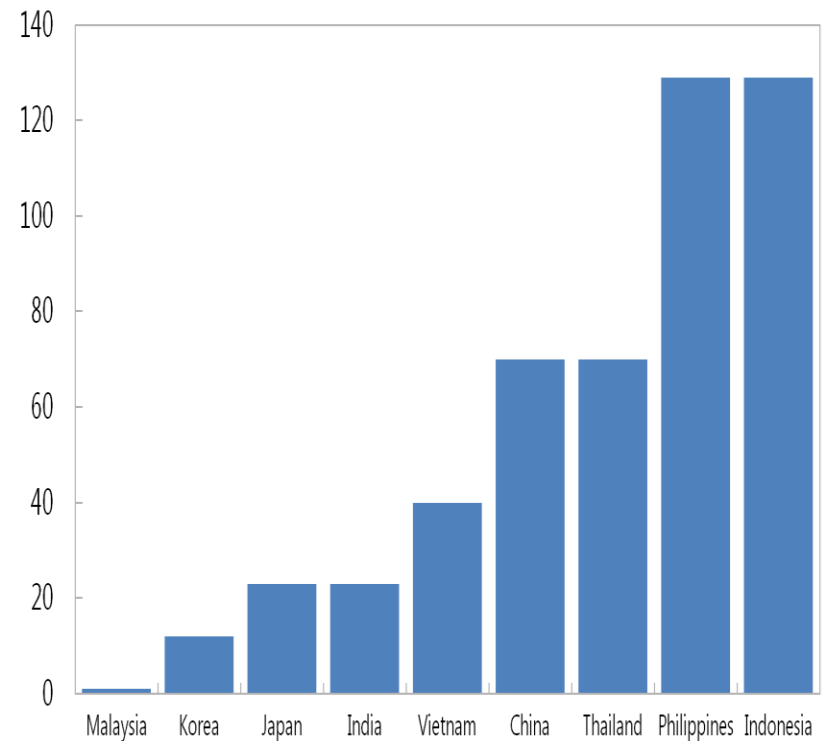
# Challenges to SME financing

- **Risk:**
  - Higher credit risks
  - Lack of reliable risk measures and records (financial statements)
  - Little credit history
- **Collateral**
  - Lack of or inadequate collateral
  - Burden of personal guarantees
- **Costs**
  - Lower debt service capability
  - Higher monitoring costs
  - Higher transaction costs for small loans

Source: R. Samujh, *et al.* (2012)

## Ranks of Easiness of Getting Credit 1/

(In ranking out of 185 countries)



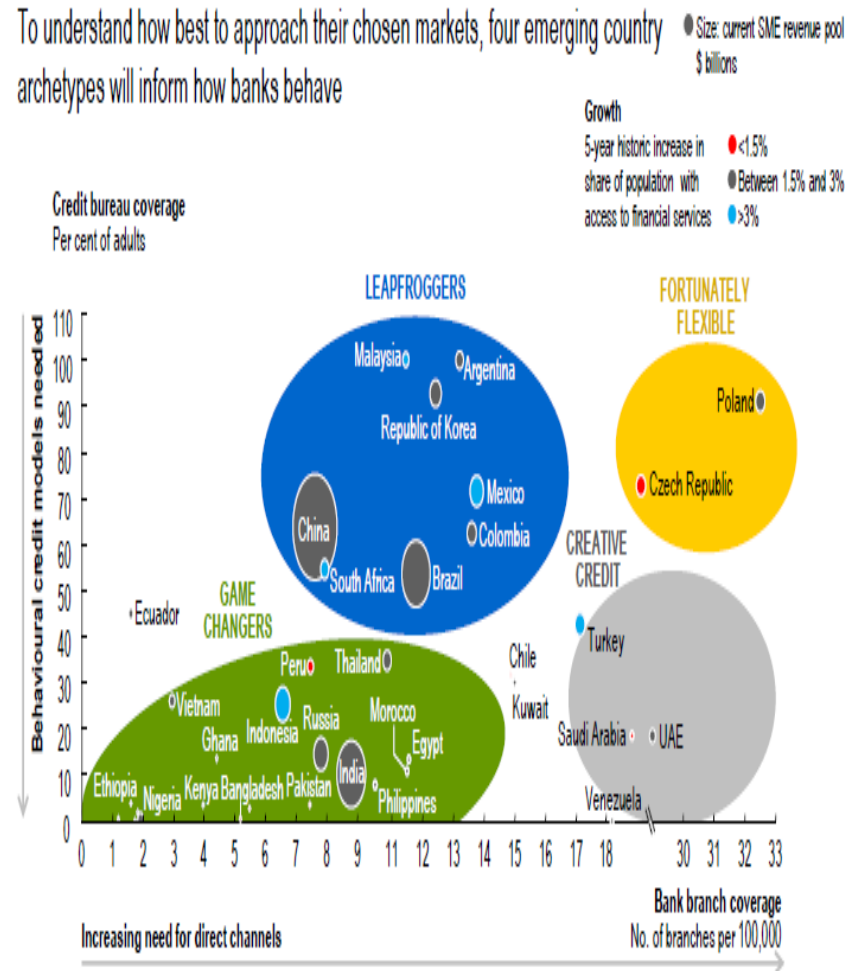
Sources: World Bank's Doing Business 2013

1/ The index evaluates strength of legal rights, depth of credit information, and public/private credit bureaus

# Credit bureau and credit availability

- Provide information to estimate repayment capacity
- Reduce asymmetric information
- Help set interest rates based on risk
- Positive correlation between credit information sharing and credit availability

To understand how best to approach their chosen markets, four emerging country archetypes will inform how banks behave

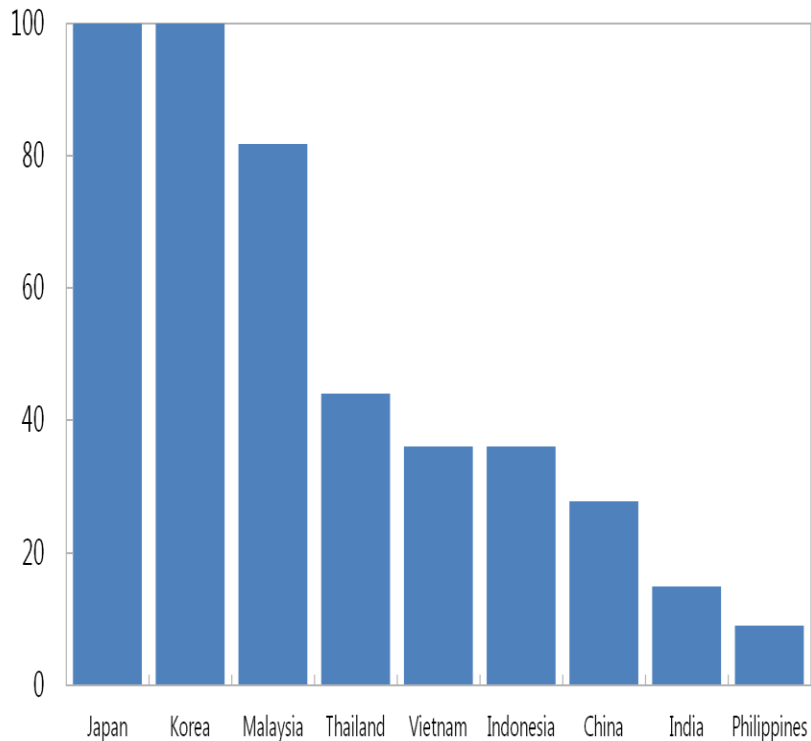


Source: Mckinsey (2012)

# Credit bureaus in Asia

## Credit Bureau Coverage 1/

(In percent of Adults)



Sources: World Development Index; and IMF staff calculations

1/ The figures of Vietnam and China are those of their public credit bureaus.

- Japan: CRD
- Korea: KCB and NICE
- Malaysia: mandatory participation
- Thailand: two credit agencies.
- Indonesia: The CIB was created by the BI. Plans to create a private one.
- China: The central bank established the PCIC.
- India: Many credit bureaus, but the CIBIL is the most important.

Source: Standard Chartered (2013)



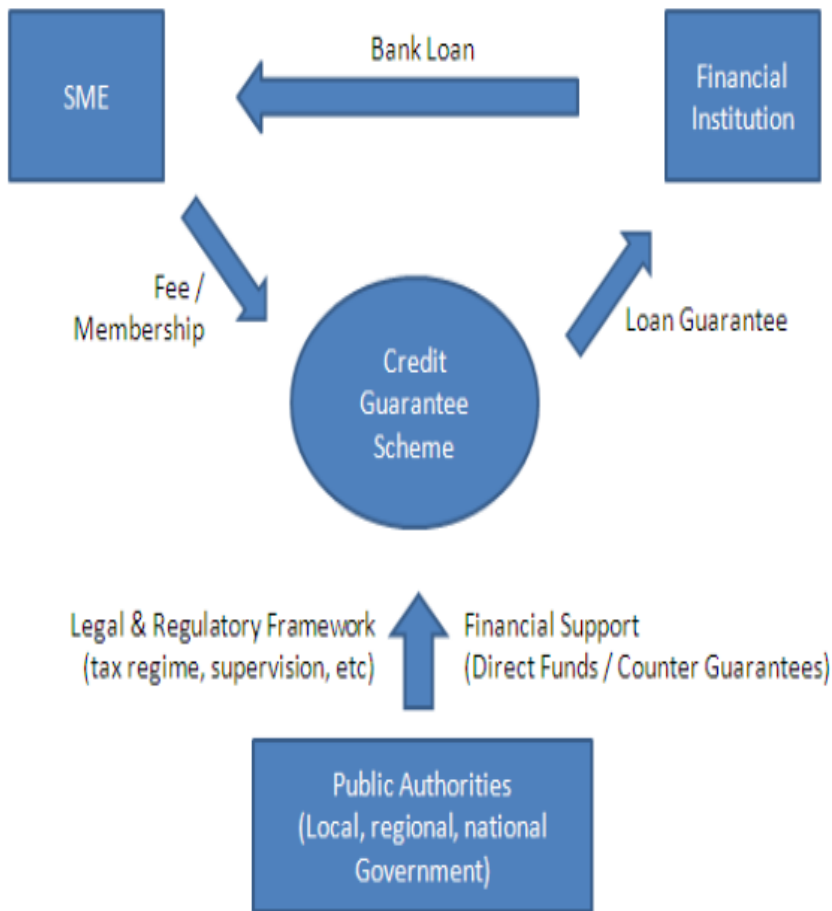
# Policy implications for credit bureaus

- Comprehensive and timely data coverage
- Non-financial information
  - e.g. utility payments, rental payments, and phone bills
- Coordination among authorities and institutions

# SME Finance: Risk Sharing

- Debt Financing
  - Public credit guarantees
  - Collateral
- Equity Financing
  - Risk capital

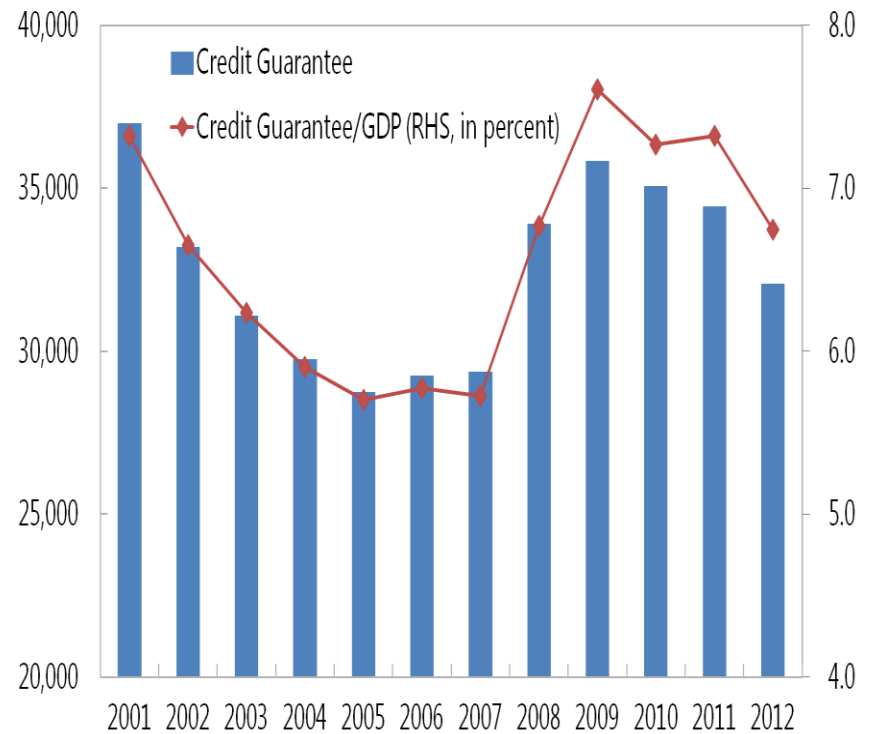
# Credit guarantees



Source: OECD (2013)

## Outstanding Credit Guarantees in Japan

(In billions of yen otherwise noted)



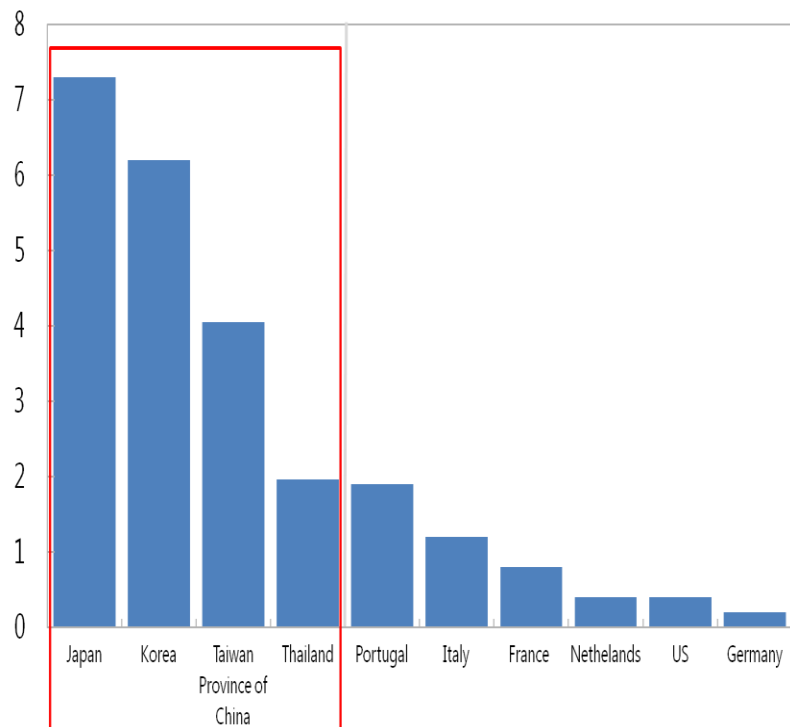
Sources: Credit Guarantee Corporation and IMF staff estimates

1/ Fiscal Year

# Outstanding credit guarantees in Asia

## Outstanding Credit Guarantees 1/

(In percent of GDP)

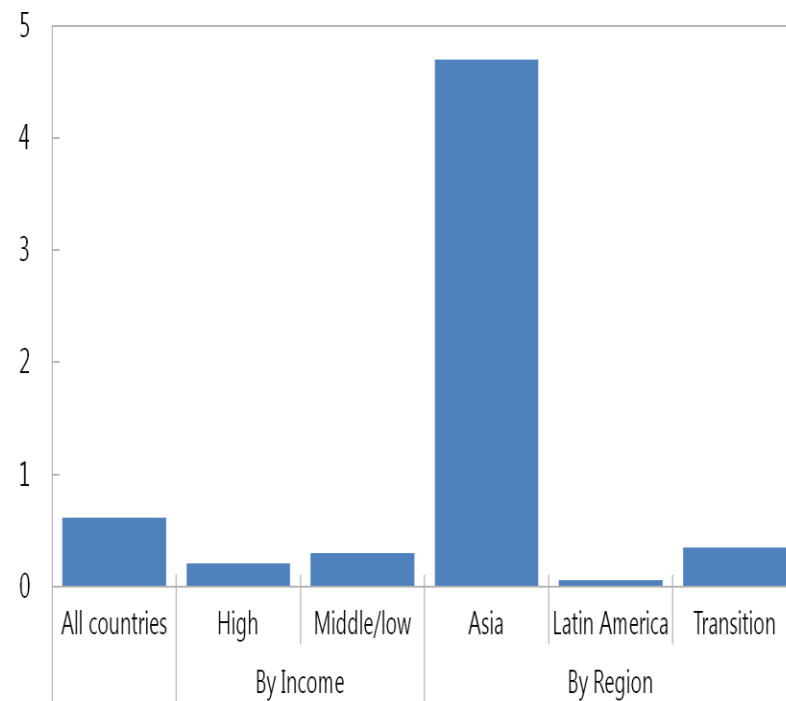


Sources: OECD (2013), Japan CGC, Thailand SBCG, Taiwan POC SMEG, and IMF staff calculations

1/ US (2010), Thailand (Q3 2013), and the other countries (2011)

## Credit guarantee outstanding

(In percent of GDP)

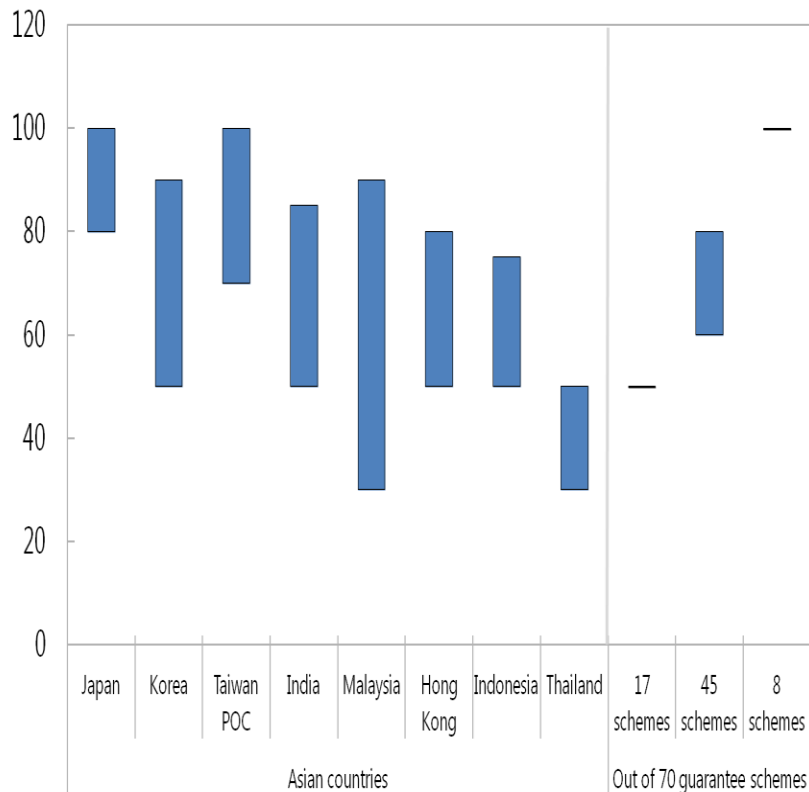


Sources: World Bank (2008, Beck et al.)

# Coverage ratio of credit guarantees in Asia

## Coverage of Credit Guarantees

(In percent of the loan value)



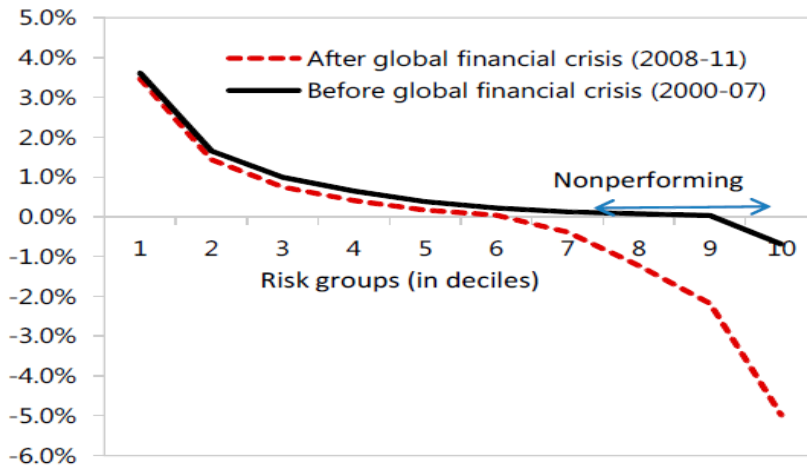
Sources: OECD (2013), BIS (2006), KPMG (2011), Japan METI, India CGTMSE, and IMF staff estimates

- According to a study into 70 guarantee schemes,
  - 17 guarantee schemes cover 50% of credit risk
  - 8 schemes cover 100% of credit risk
  - The remaining 45 schemes cover between 60-80% of credit risk

Source: KPMG (2011)

# Impact of generous supportive measures: performance of Japanese SMEs

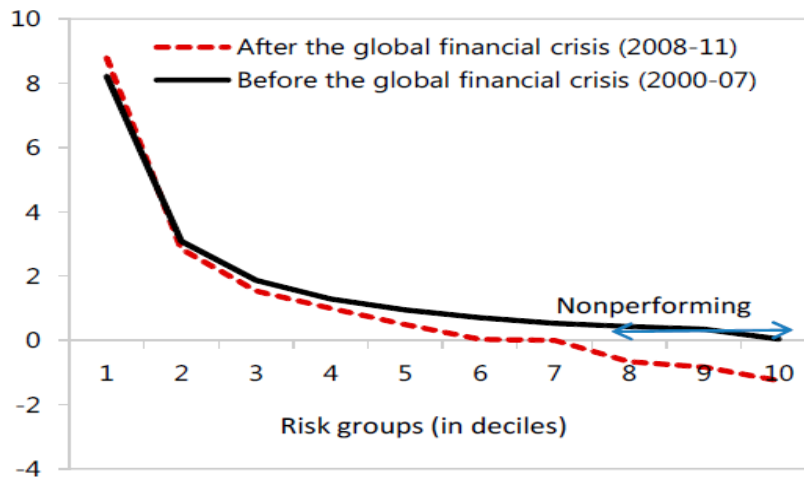
Median return on assets (in percent)



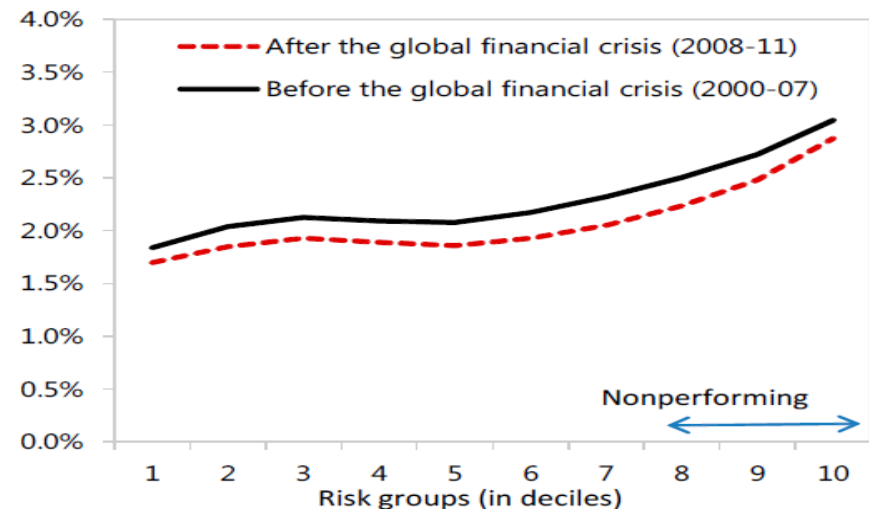
Median debt-to-equity ratio



Median interest rate coverage (in times)

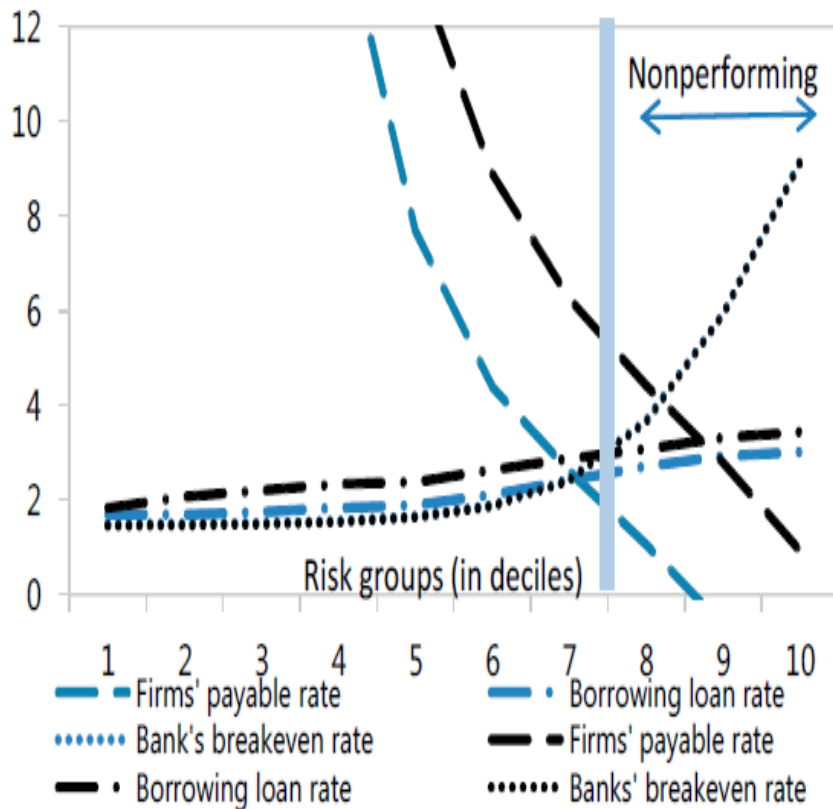


Median borrowing cost (in percent)



# Impact of generous supportive measures: favorable borrowing rates

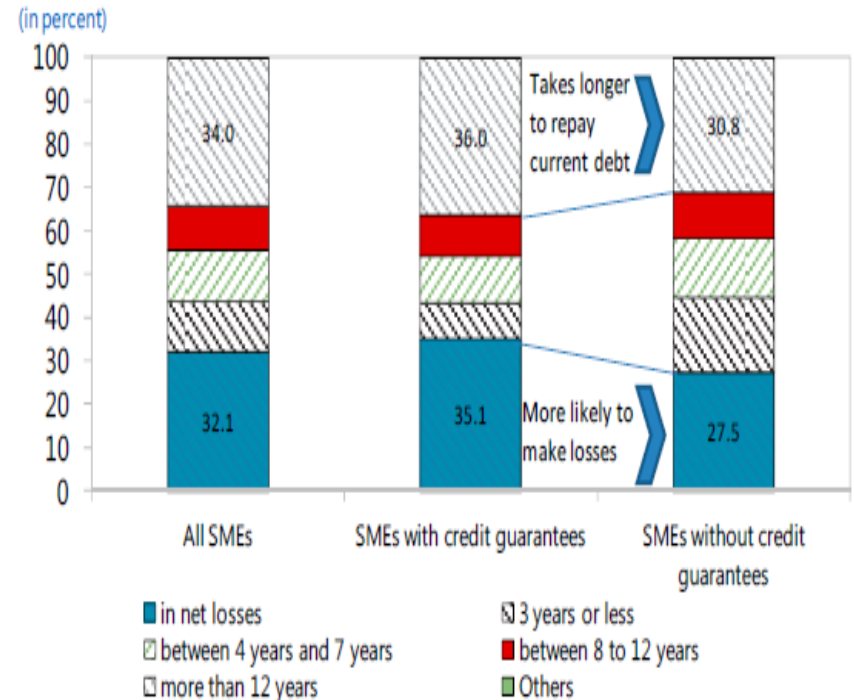
Demand and Supply of loanable funds (in percent)



3/ Blue color lines indicate FY2009-10, while black color lines indicate FY2000.

Source: W. R. Lam and J. Shin (2012)

Operating Performance and Debt Repayment Capacity among SMEs with and without Credit Guarantees



Source: CRD.

1/ Repayment capacity is measured in terms of number of years, which is the ratio of all long- and short-term debts divided by the sum of net income and depreciation expenses. SMEs in operating losses or longer years have weaker repayment capacity on debts.

# Public credit support measures may entail economic costs

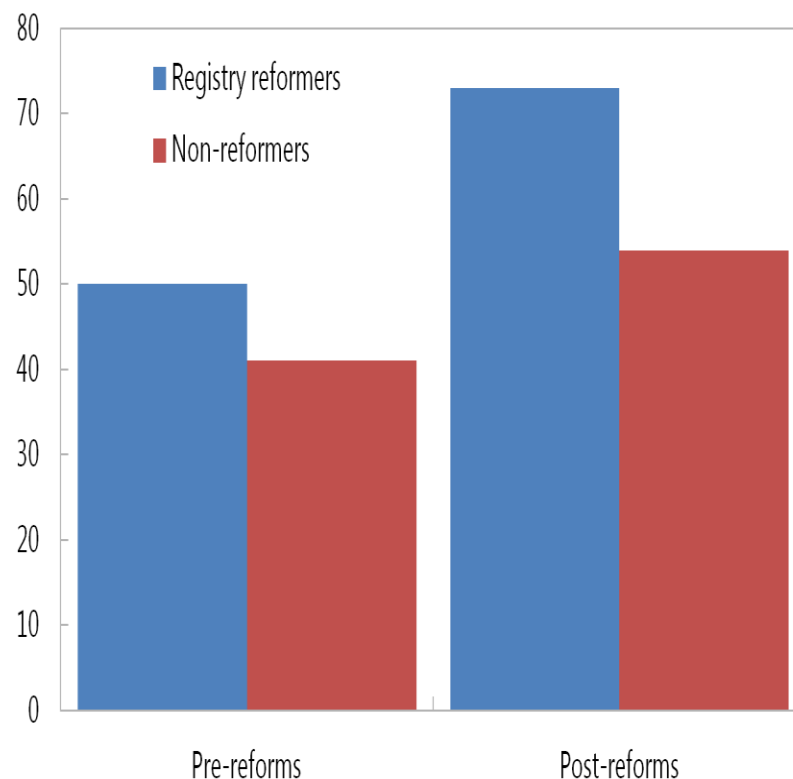
- Weaken credit risk assessment of lenders
- Understate credit risk
- Crowd out non-guaranteed loans and limit incentives to restructure SMEs
- Guarantees could lead to misallocation of resources and undermine the healthy dynamics of SMEs.



# A broader range of collateral and registry reforms

- Challenges in collateral
  - Intangible Assets
  - A fair value of collateral
  - Personal guarantees
- Registry reforms
  - Establish property registers
  - Enhance bankruptcy procedures and court systems for recovery

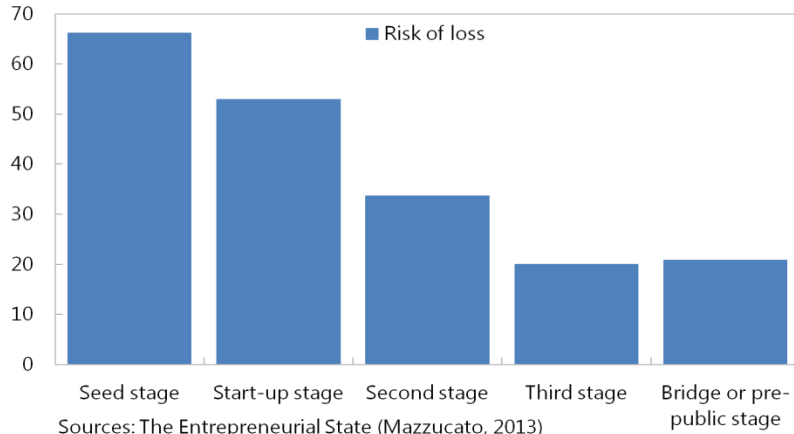
**Effect of Collateral Registry Reforms on Access to Finance**  
*(Firms with access to finance, in percent)*



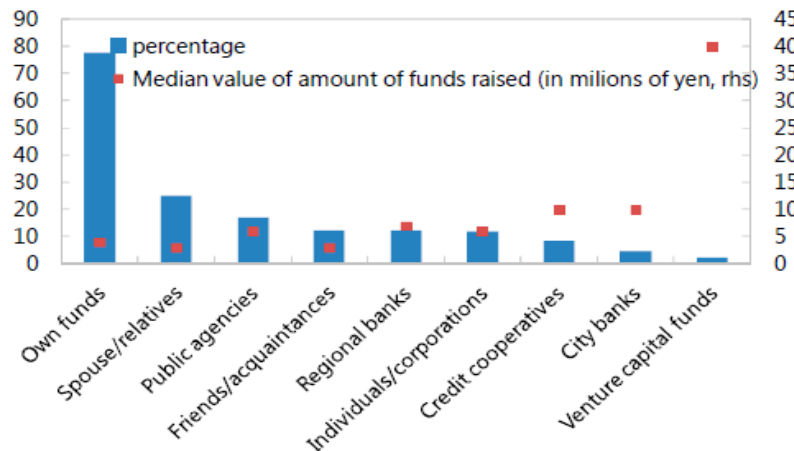
Sources: Global Financial Development Report 2014

# Equity Finance: Risk Capital

**Risk of loss for different stages at which investments are made** (In percent)

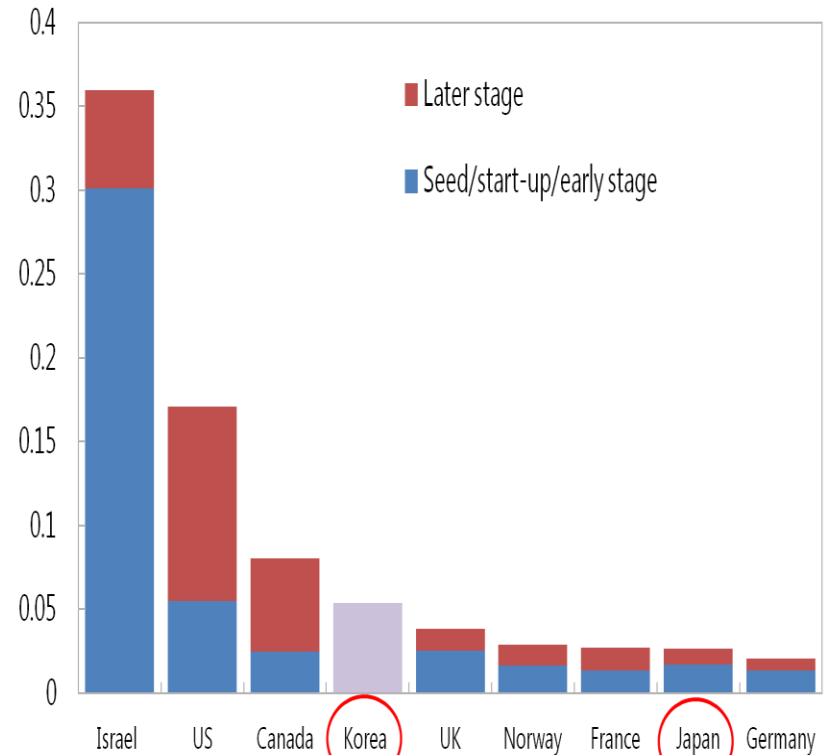


**Sources of startup funds** (In percent except as noted)



**Venture Capital Investment in 2012**

(In percent of GDP)



Sources: OECD (2013)

# Policy Implications

- Develop credit information and market infrastructure.
- Limit excessive interventions in credit guarantees to avoid distortions.
- Broaden the range of collateral
  - Enhance property rights and contract enforceability.
- Promote risk capital

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**Thank you !**

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January 27, 2014