Promoting SME trade finance in the CAREC Region
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Role of Credit Risk Assessment and Public Financial Institutions in Easing SMEs Access to Trade Finance

Farhad Taghizadeh-Hesary, Ph.D.

Assistant Professor of Economics
Faculty of Political Science and Economics (FPSE)
Waseda University, Tokyo, Japan

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Outline

I. Status of SMEs in CAREC region

II. Difficulties of SMEs in accessing to finance in CAREC region

III. Role of credit risk assessment in easing SME access to trade finance

IV. Role of public financial institutions in filling the SME credit gap

V. Conclusion and the Policy Recommendations

I. Status of SMEs in CAREC region

SME Share of Enterprises, Exports, and Output, Selected Asian Economies

	SHARE OF ALL ENTERPRISES	SHARE OF EXPORTS	SHARE OF OUTPUT	INDICATORS FOR OUTPUT	DATA YEAR*
	%	%	%		
HIGH INCOME					
JAPAN	99.7	…	43.7	Sales	2012
REP. OF KOREA	99.9	18.8	47.6	MVA	2012
SINGAPORE	99.4	…	45.0	GDP	2012
UPPER MIDDLE INCOME					
PRC	97.3	41.5	60.0	GDP	2013, 2011, 2013
KAZAKHSTAN	96.1	…	23.1	GVA	2016
MALAYSIA	97.3	…	35.9	GDP	2014
PHILIPPINES	99.6	…	35.7	GVA	2013, 2006
THAILAND	99.7	26.3	39.6	GDP	2014
LOWER MIDDLE INCOME					
BANGLADESH	99.0	…	25.0	GDP	2013, 2014
INDIA	…	42.4	37.5	MVA	2013
INDONESIA	99.9	15.7	60.3	GDP	2013
KYRGYZ REPUBLIC	97.7	…	12.0	GDP	2013
MONGOLIA	98.2	…	25.0	GDP	2013
SRI LANKA	99.5	20.0	30.0	GDP	2013
VIET NAM	97.7	…	…		2012
LOW INCOME					
CAMBODIA	99.8	…	…		2014

GDP = gross domestic product, GVA = gross value added, MVA = manufacturing value added, PRC = People's Republic of China, SME = small and medium-sized enterprise.
Note: For the PRC, the definition of SME used for the share of enterprises is those with fewer than 1,000 workers, and the share of exports refers to the share of industrial exports.
* When more than one year is indicated, the first year refers to the share of the enterprises, the second refers to exports, and the third to output.
Source: Vandenberg, Chantapacdepong, and Yoshino (2016)
Source for Kyrgyz Republic and Mongolia is: is: ADB (2015), Asia SME finance monitor 2014
Source for Kazakhstan is: Damu (2017)

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SME Share of Employment in Selected Asian Economies

	SME EMPLOYMENT AS A SHARE OF:	SME SHARE (%)	YEAR
REP. OF KOREA	enterprise employment	87.7	2012
THAILAND	enterprise employment	80.3	2014
BANGLADESH	nonagricultural employment	75.0	2014
CAMBODIA	enterprise employment	71.8	2014
JAPAN	enterprise employment	69.7	2012
PRC	industry employment	64.7	2011
PHILIPPINES	enterprise employment	63.7	2013
SINGAPORE	total employment	68.0	2012
MALAYSIA	total employment	65.0	2014
MONGOLIA	Total employment	52.0	2012
VIET NAM	total employment	46.8	2012
KAZAKHSTAN	total employment	35.9	2016
SRI LANKA	total employment	35.0	2013
KYRGYZ REPUBLIC	total employment	3.9	2013

PRC = People's Republic of China, SME = small and medium-sized enterprise.
Note: For Bangladesh, the figure is 70%–80%; we have taken the average.
Source: Vandenberg, Chantapacdepong, and Yoshino (2016)
Source for Kyrgyz Republic is: ADB (2015), Asia SME finance monitor 2014
Source for Mongolia is World Bank (2012). Access to Finance Technical Note. Financial Sector Assessment Program, Development Module Mongolia. Washington, D.C
Source for Kazakhstan is: DAMU (2017)

Small and Medium-Sized Enterprises in Kazakhstan

	2011	2012	2013	2014	2015	2016
Output by SMEs, Output Share in the Gross National Product of Kazakhstan						
Share of GVA of SMEs in GDP, %	17.3	17.1	16.7	25.9	24.9	23.1
Output by SMEs, KZT Billion	7,604	8,255	9,165	15,568	15,699	16,857
Employment by SMEs						
SME Employees ('000)	2,427	2,383	2,577	2,811	3,184	3,075
SMEs to Total (%)	29.2	28.0	30.1	33.0	36.9	35.9
Number of SMEs						
SMEs' Number ('000)	1,384	1,400	1,536	1,655	1,481	1,500
SMEs to Total (%)	95.0	94.9	95.1	96.0	96.1	96.1
Number of Operating SMEs	846	810	888	927	1.243	1,187

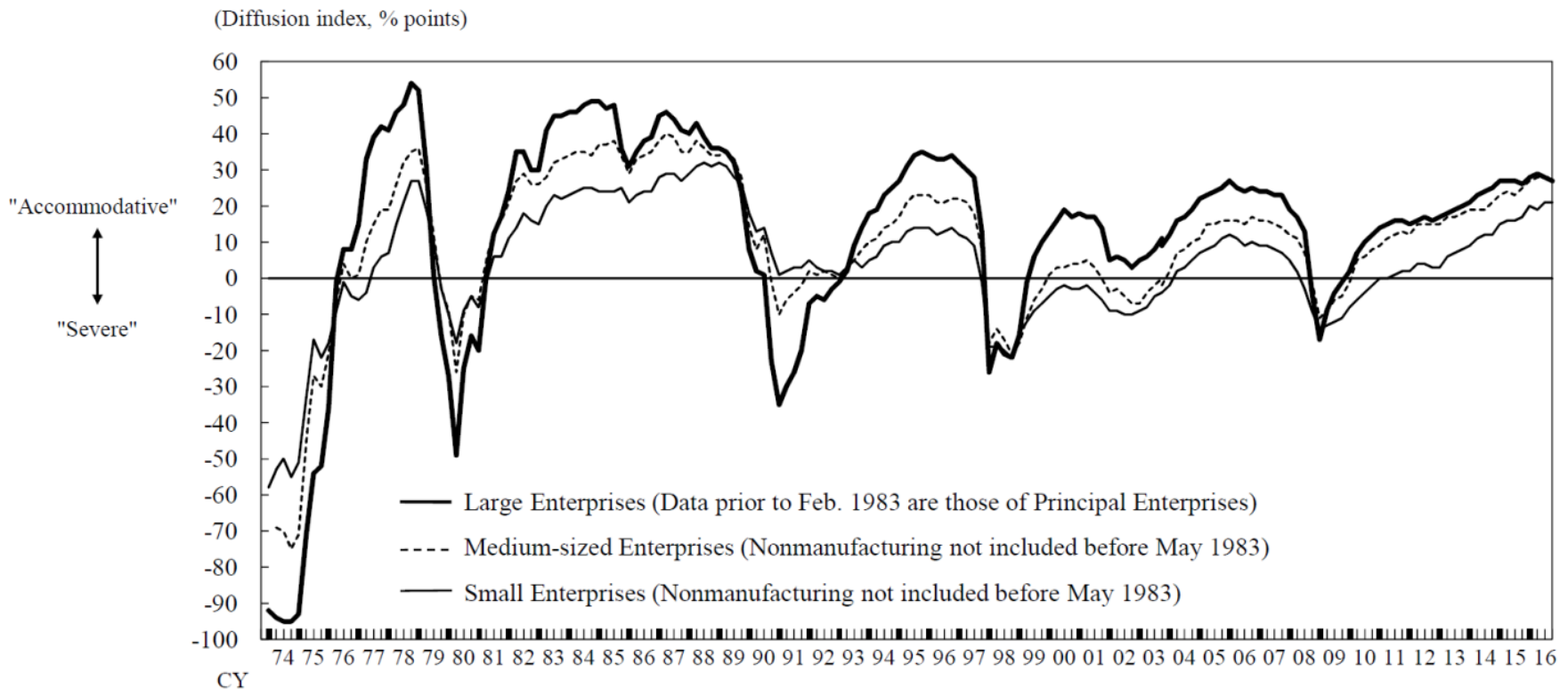Note: SMEs=small and medium-sized enterprises; GVA=gross value added; GDP=gross domestic product.
Source: Damu (2017).

II. Difficulties of SMEs in accessing to finance in CAREC region
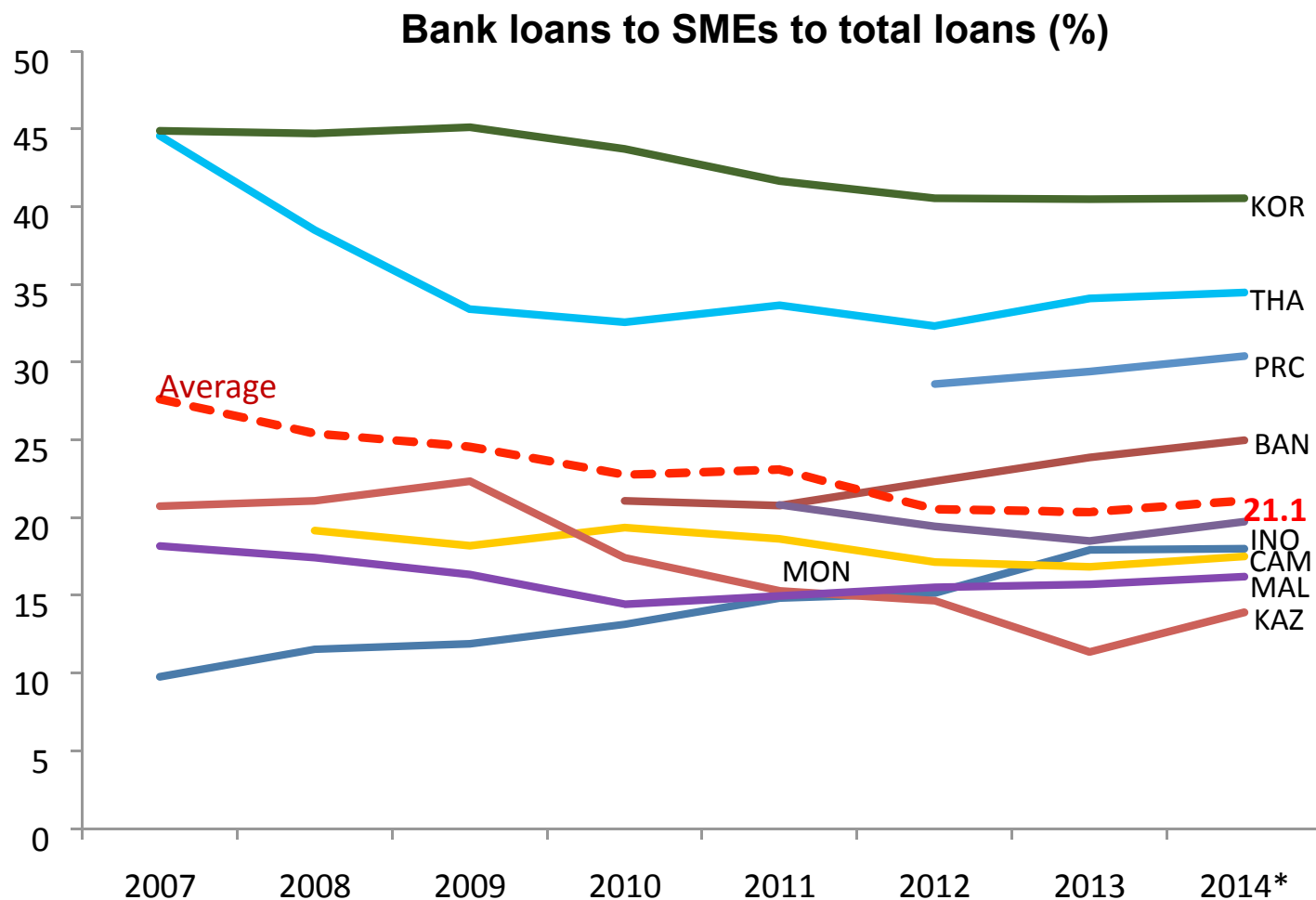
SMEs' Difficulties in Raising Money

Lending Attitude of Financial Institutions

Bank of Japan (2016) – TANKAN

Limited bank lending to SMEs in Central Asia is a Challenge

Bank loans to SMEs to total loans (%)

BAN = Bangladesh, PRC = People's Republic of China, IND = India, INO = Indonesia, KAZ = Kazakhstan, KOR = Republic of Korea, MAL = Malaysia, MON = Mongolia, PHI = Philippines, SRI = Sri Lanka, and THA = Thailand.
Source: Asia Finance Monitor (2015)

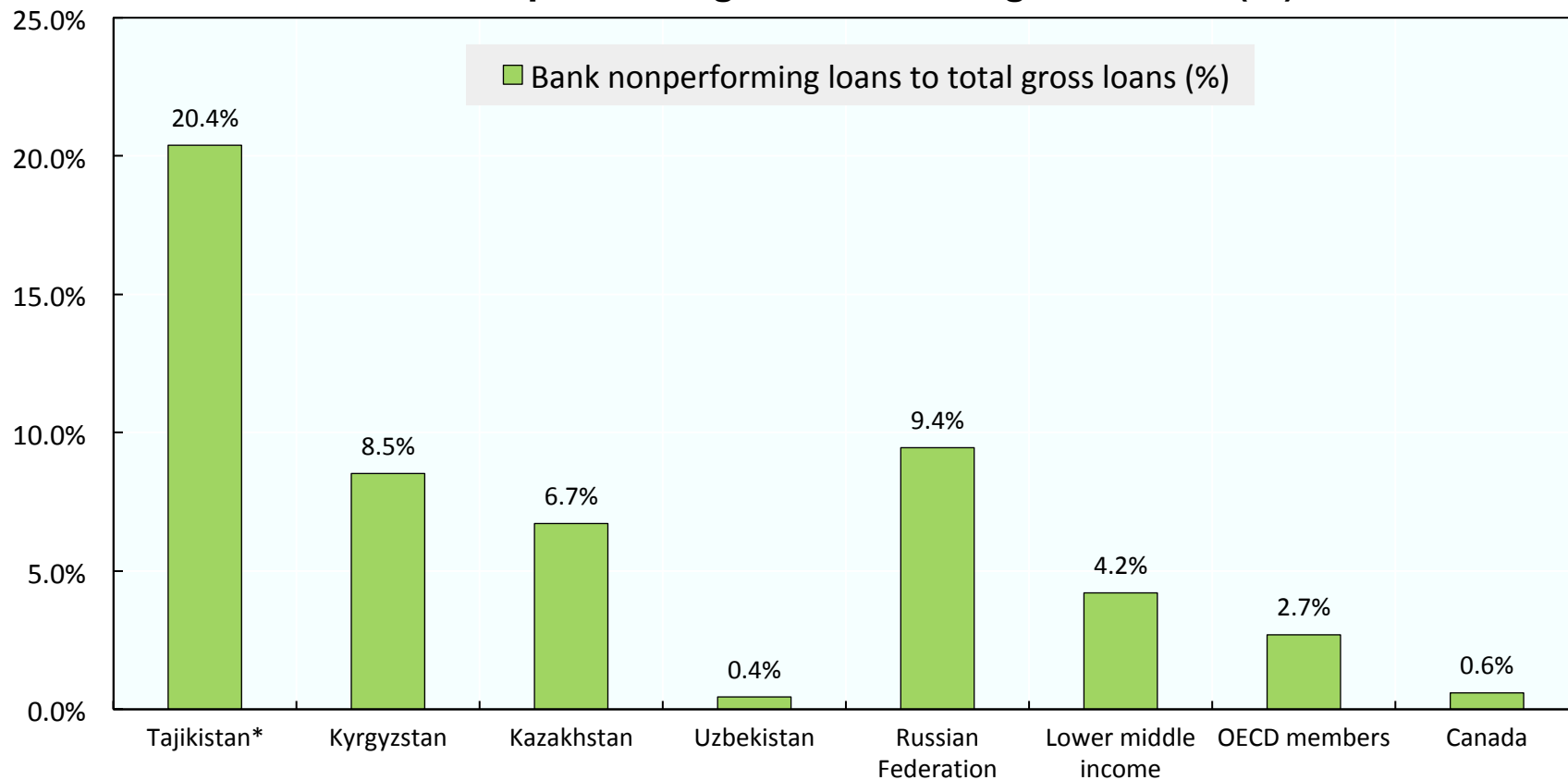# Credit to the private sector in Central Asia remains comparatively modest

Domestic credit to private sector in Central Asia
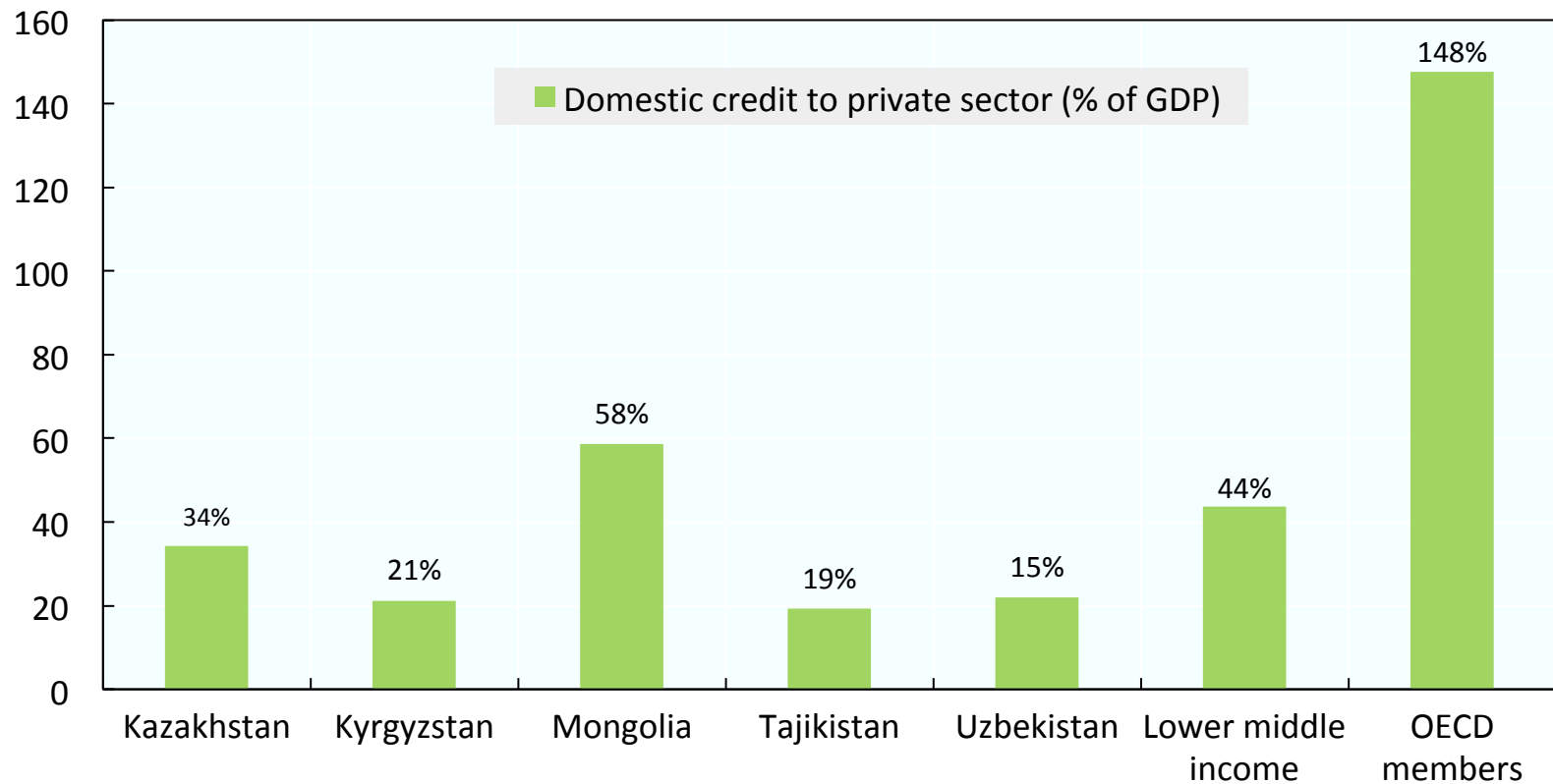
Source: (World Bank, 2017), (EBRD, 2017), (RAEX, 2017), (OECD, 2018)

Non-performing loans remain high in the region

**Bank nonperforming loans to total gross loans (%)**

Legend: ▨ Bank nonperforming loans to total gross loans (%)

Country/Group	Value
Tajikistan*	20.4%
Kyrgyzstan	8.5%
Kazakhstan	6.7%
Uzbekistan	0.4%
Russian Federation	9.4%
Lower middle income	4.2%
OECD members	2.7%
Canada	0.6%

Note: * Data for Tajikistan is from 2014
Sources: (World Bank, 2017; Bank of Mongolia, 2016; OECD, 2018)

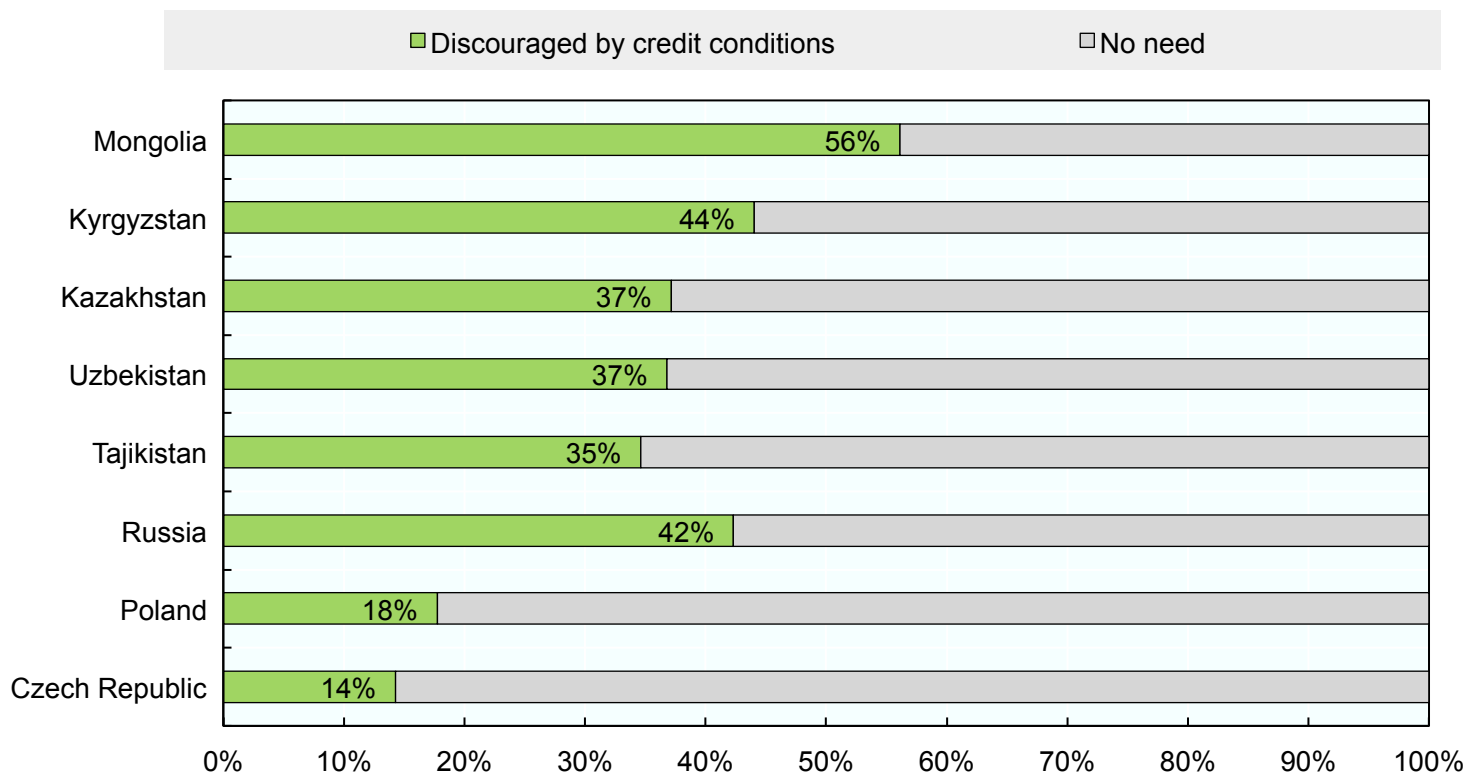# Credit conditions are tight with high interest rates in the region

Lending interest rate and inflation rate
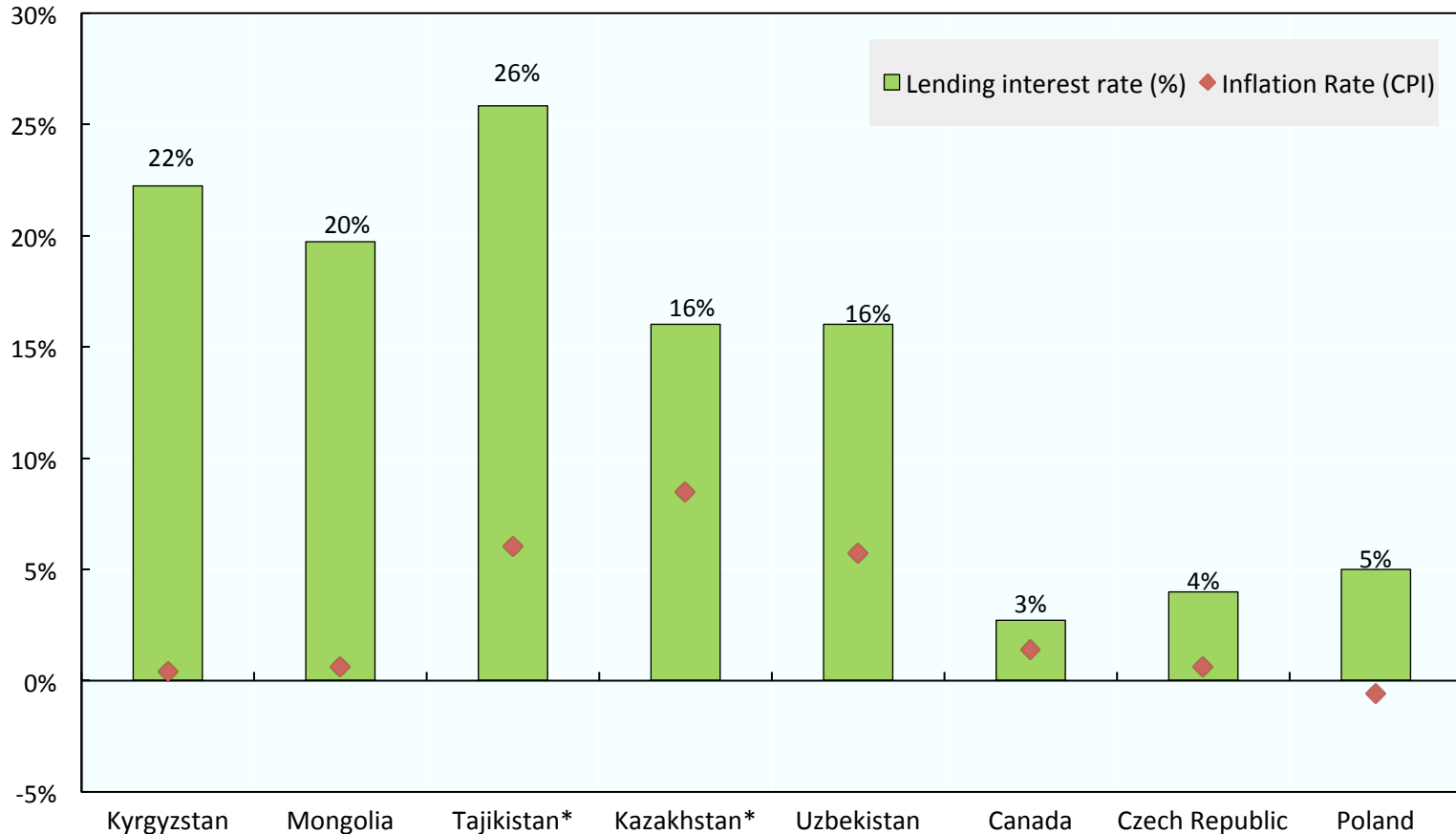
Note: *lending interest rates for Kazakhstan and Tajikistan (2015)
Source: (World Bank, 2017; CIA, 2018, State Committee of Uzbekistan on Statistics, 2018; Ministry of National Economy of Kazakhstan, 2017; OECD, 2018)

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More than a third of SMEs are discouraged from applying loans due to tight credit conditions in the region, compared to less than a fifth in selected OECD countries.

Percentage of SMEs that are discouraged to apply for a loan by credit conditions

☐ Discouraged by credit conditions   ☐ No need

Country	Discouraged by credit conditions
Mongolia	56%
Kyrgyzstan	44%
Kazakhstan	37%
Uzbekistan	37%
Tajikistan	35%
Russia	42%
Poland	18%
Czech Republic	14%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Source: (E B R D , 2 0 1 7 ; O E C D , 2 0 1 8)

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High and systematic collateral requirements limit access to finance for SMEs
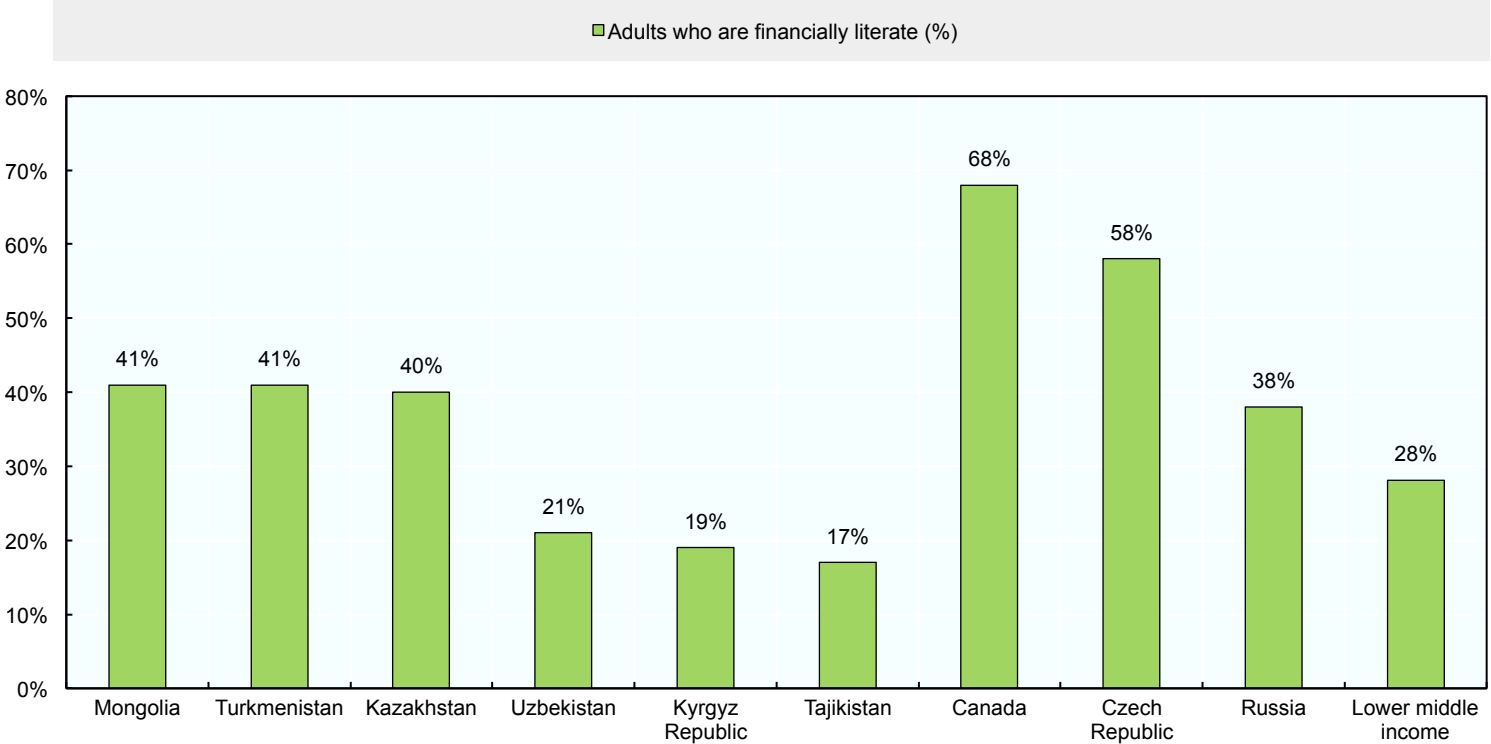
Figure 5. Collateral requirements in Central Asia
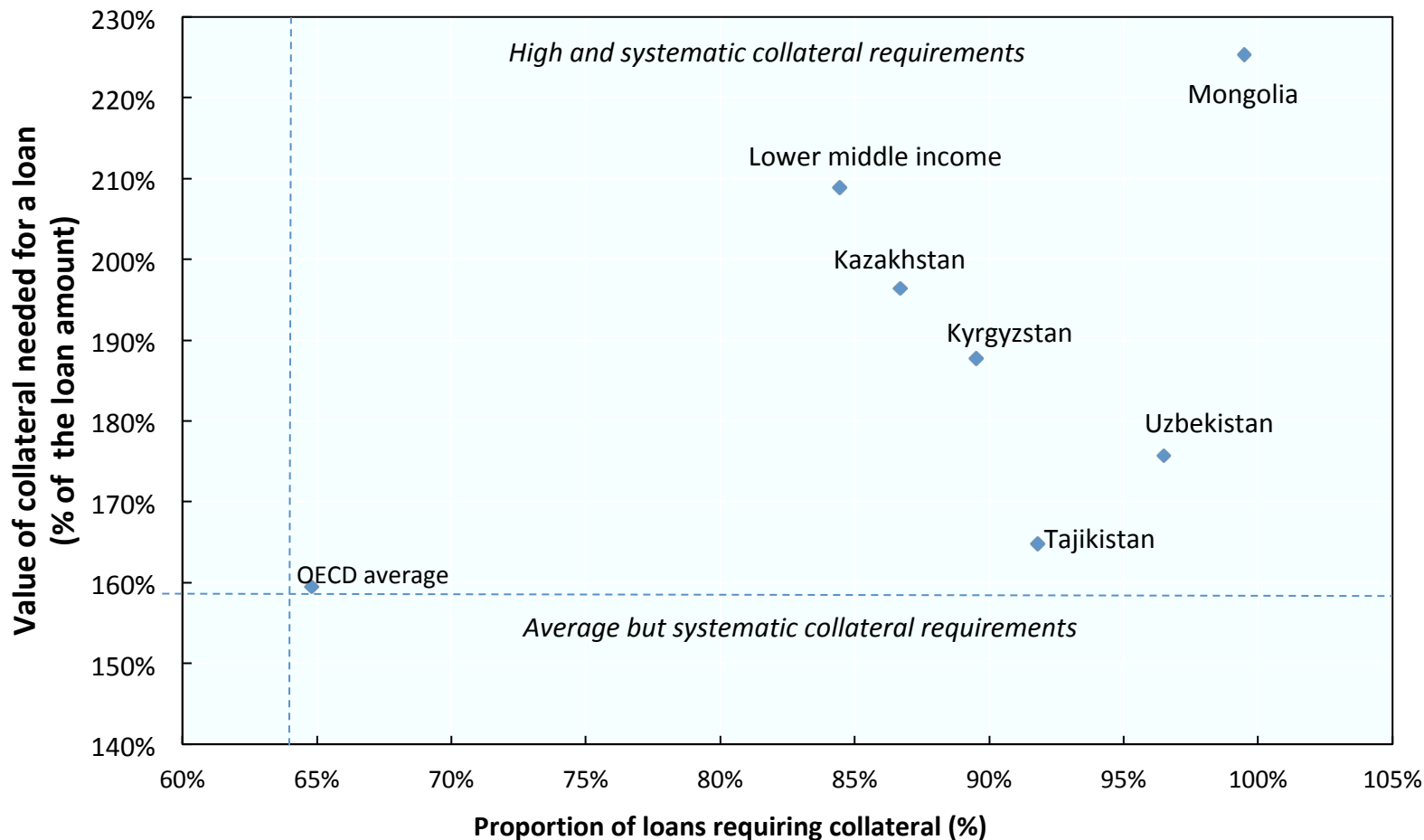
Source: (EBRD, 2017, World Bank, 2017, OECD, 2018)

Low financial literacy hampers SME business development opportunities

Financially literate adults

Source : (S & P , 2 0 1 5 ; O E C D , 2 0 1 8)

III. Role of credit risk assessment in easing SME access to finance

SMEs
in Developing Asia
New Approaches to Overcoming Market Failures

Edited by
Paul Vandenberg
Pornpinun Chantapacdepong
Naoyuki Yoshino

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Role of the Credit Risk Database in Developing SMEs in Japan: Ideas for Asia

Satoshi Kuwahara, Naoyuki Yoshino, Megumi Sagara, and Farhad Taghizadeh-Hesary

11.1 Introduction

Small and medium-sized enterprises (SMEs) are the backbone of the Japanese economy and other Asian economies. More than 99%
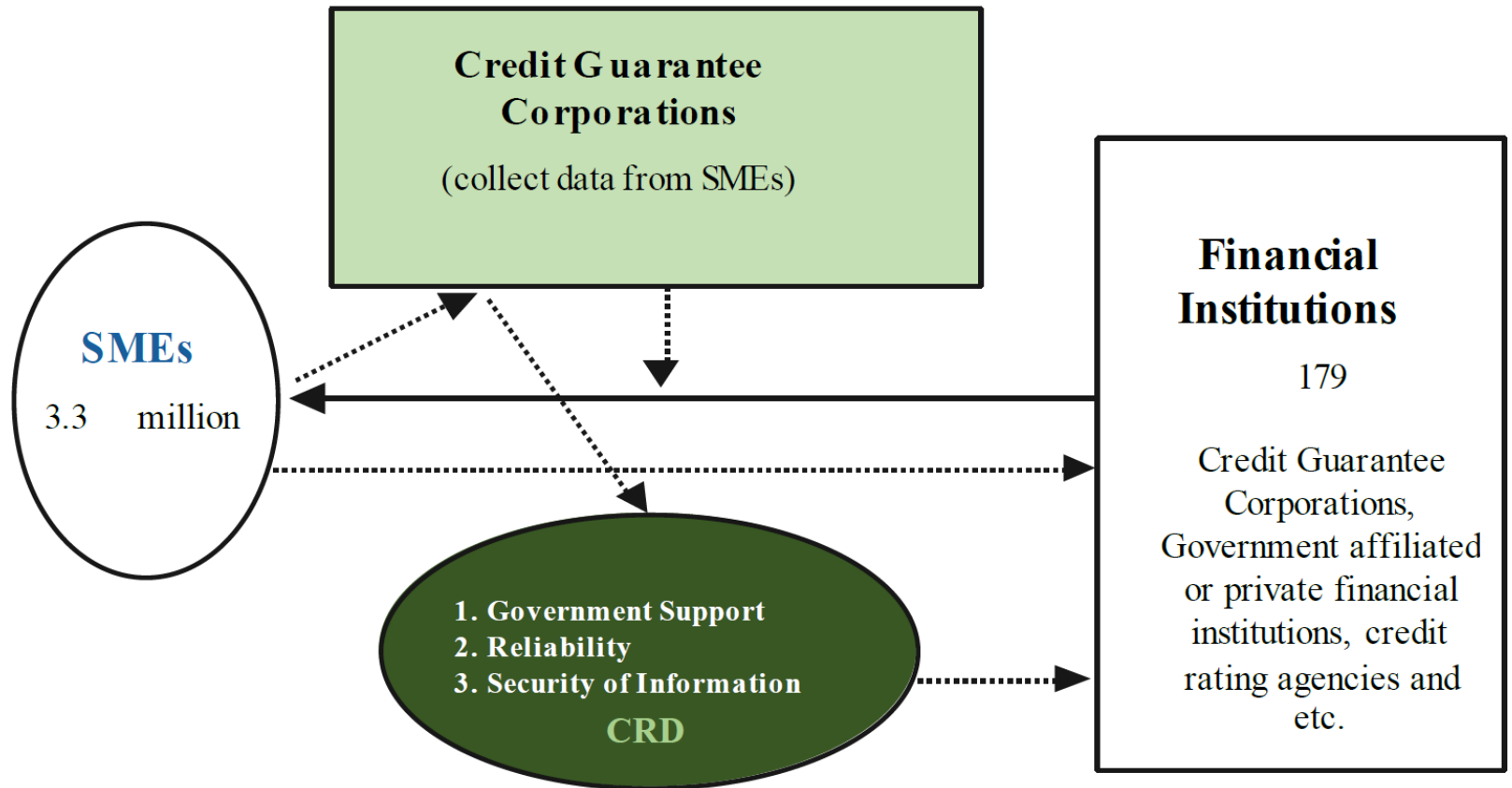

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Optimal Credit Guarantee Ratio for Asia

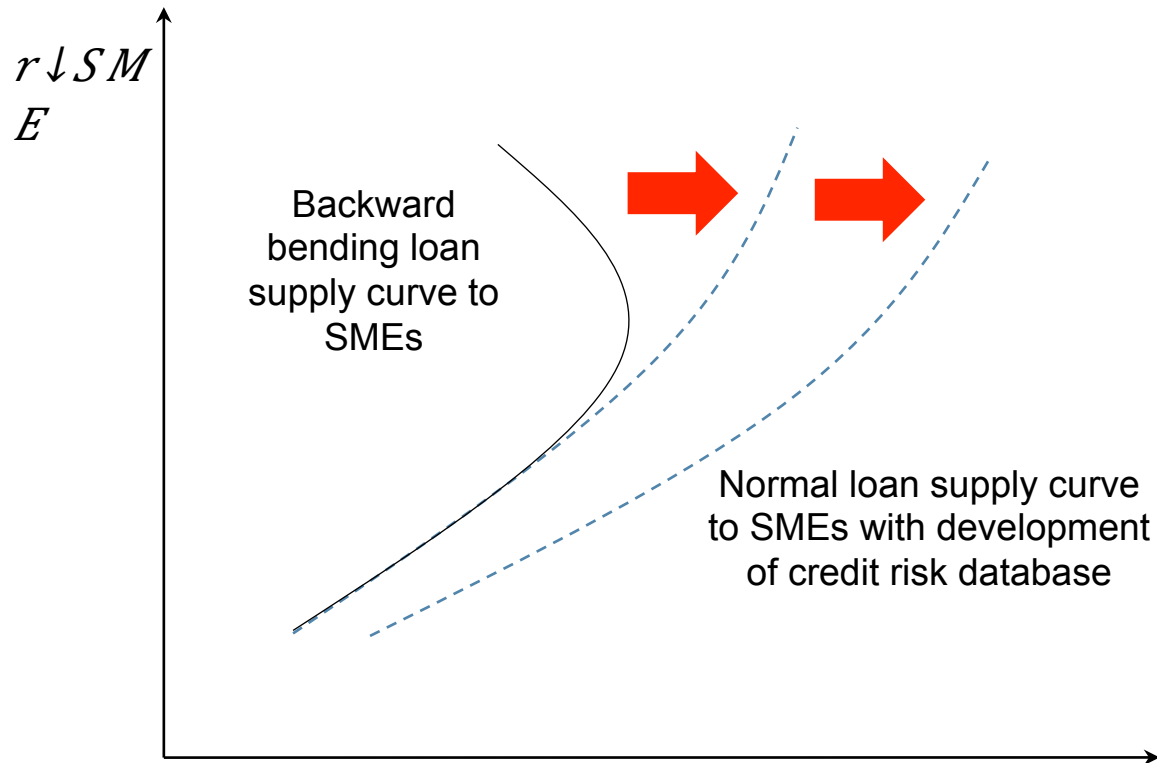Naoyuki Yoshino and Farhad Taghizadeh-Hesary

7.1 Introduction

Small and medium-sized enterprises (SMEs) in Asia are frequently hailed as the backbone of the economies. There is widespread consensus on their significant role in economic growth, employment creation, boosting foreign trade, and poverty alleviation. Over the period 2007–2012, they accounted for 98% of all enterprises and 38% of the gross

SMEs, CRD, CGCs and Banks

Credit Guarantee Corporations

(collect data from SMEs)

SMEs

3.3 million

Financial Institutions

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Credit Guarantee Corporations, Government affiliated or private financial institutions, credit rating agencies and etc.

1. Government Support
2. Reliability
3. Security of Information

CRD

Source: Yoshino and Taghizadeh-Hesary (2015)

Efficient credit risk assessment scheme reduces the asymmetry of information and increase the bank based trade finance

$r{\downarrow}SME$

Backward bending loan supply curve to SMEs

Normal loan supply curve to SMEs with development of credit risk database

Source: Yoshino and Taghizadeh-Hesary (2018)
Note: *rSME* = lending interest rate to SMEs; *LSME*= amount of loan to SMEs; SME= small and medium-sized enterprises;

$L{\downarrow}SME$

Development of models for credit risk assessment of SMEs

ANALYTICAL FRAMEWORK ON CREDIT RISKS FOR FINANCING SMALL AND MEDIUM-SIZED ENTERPRISES IN ASIA

Naoyuki Yoshino and Farhad Taghizadeh-Hesary*

Small and medium-sized enterprises (SMEs) account for the major share of employment and dominate the Asian economies. These economies are often characterized as having bank-dominated financial systems and underdeveloped capital markets, in particular venture capital. Hence, offering new methods for financing SMEs is crucial. Hometown

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Case1: Analysis of SME credit risk using Asian data

- Selection of the variables
- Principal Component Analysis
- Cluster Analysis
- Interpretation of the results

Examined Variable

No.	Symbol	Definition	Category
1	Equity_TL	Equity (book value)/total liabilities	Leverage
2	TL_Tassets	Total liabilities/total assets	
3	Cash_Tassets	Cash/total assets	Liquidity
4	WoC_Tassets	Working capital/total assets	
5	Cash_Sales	Cash/net sales	
6	EBIT_Sales	Ebit/sales	Profitability
7	Rinc_Tassets	Retained earnings/total assets	
8	Ninc_Sales	Net income/sales	
9	EBIT_IE	Ebit/interest expenses	Coverage
10	AP_Sales	Account payable/sales	Activity
11	AR_TL	Account receivable/total liabilities	

Note: Retained earnings = the percentage of net earnings not paid out as dividends, but retained by the company to be reinvested in its core business or to pay debt. It is recorded under shareholders' equity in the balance sheet. Ebit = earnings before interest and taxes. Account payable = an accounting entry that represents an entity's obligation to pay off a short-term debt to its creditors. The accounts payable entry is found on a balance sheet under current liabilities. Account receivable = money owed by customers (individuals or corporations) to another entity in exchange for goods or services that have been delivered or used, but not yet paid for. Receivables usually come in the form of operating lines of credit and are usually due within a relatively short time period, ranging from a few days to a year.

Source: Yoshino and Taghizadeh-Hesary (2014)

Total Variance Explained

Component	Eigenvalues	% of Variance	Cumulative Variance %
Z1	3.30	30.00	30.00
Z2	2.19	19.90	49.88
Z3	1.25	11.38	61.26
Z4	1.08	9.78	71.03
Z5	0.94	8.56	79.60
Z6	0.75	6.79	86.37
Z7	0.56	5.09	91.47
Z8	0.48	4.36	95.82
Z9	0.32	2.87	98.69
Z10	0.13	1.14	99.84
Z11	0.09	0.17	100.00

Source: Yoshino and Taghizadeh-Hesary (2014)

Factor Loadings of Financial Variables after Direct Oblimin Rotation

Variables (Financial Ratios)	Component			
	Z1	Z2	Z3	Z4
Equity_TL	0.009	0.068	0.113	**0.705**
TL_Tassets	-0.032	**-0.878**	0.069	-0.034
Cash_Tassets	-0.034	-0.061	**0.811**	0.098
WoC_Tassets	-0.05	**0.762**	0.044	0.179
Cash_Sales	**-0.937**	0.021	0.083	0.009
EBIT_Sales	**0.962**	0.008	0.024	-0.004
Rinc_Tassets	0.014	**0.877**	0.015	-0.178
Ninc_Sales	**0.971**	-0.012	0.015	0.014
EBIT_IE	0.035	0.045	**0.766**	-0.098
AP_Sales	**-0.731**	-0.017	-0.037	-0.016
AR_TL	0.009	-0.041	-0.104	**0.725**

Note: The extraction method was principal component analysis, The rotation method was direct oblimin with Kaiser normalization.

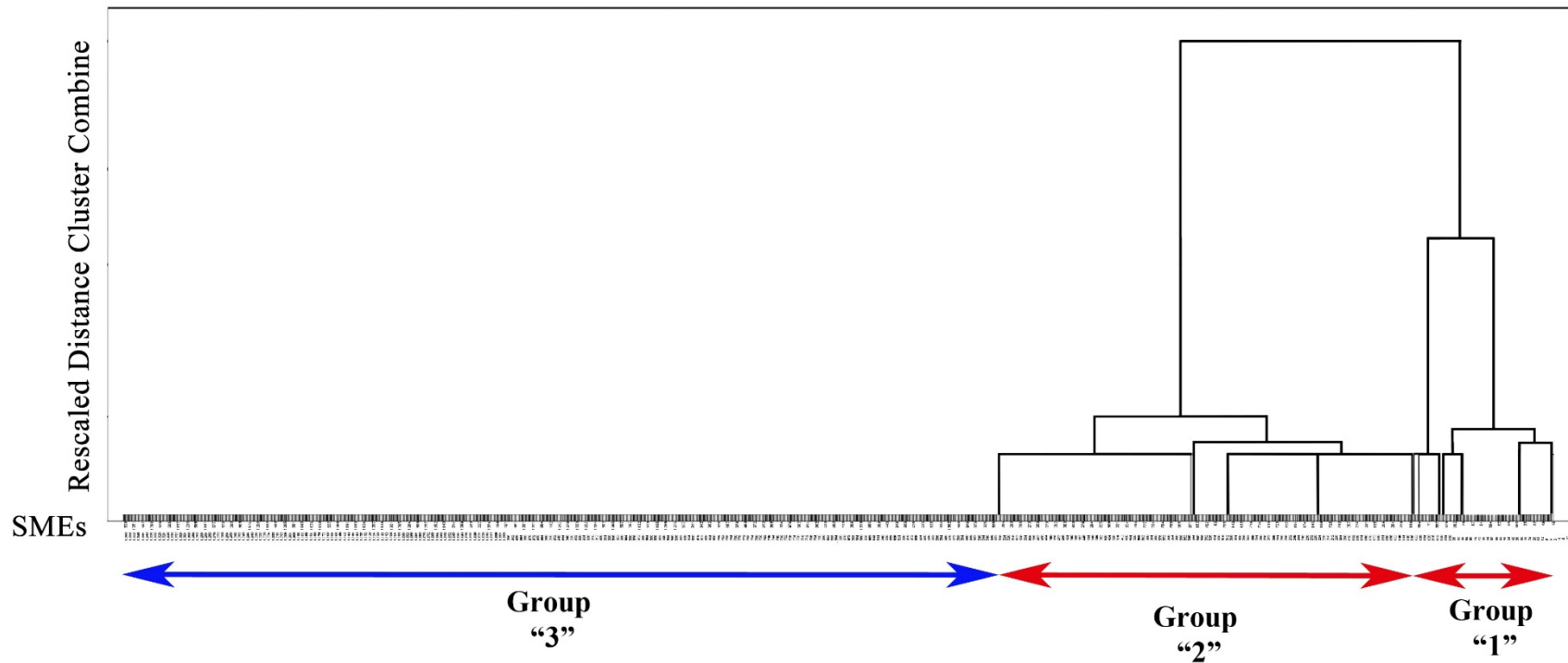Source: Yoshino and Taghizadeh-Hesary (2014)

Distribution of Factors for Group A and B of SMEs
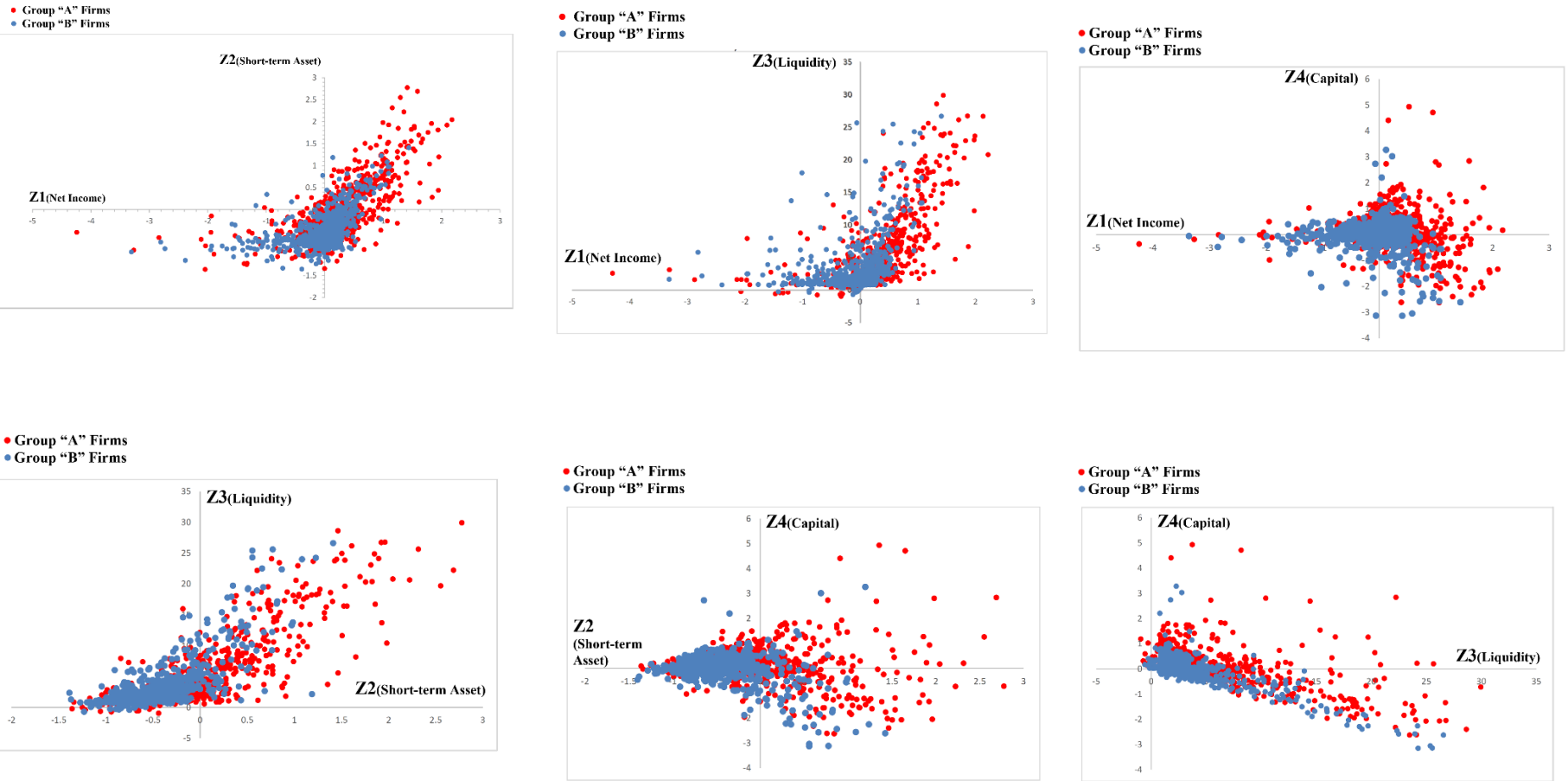
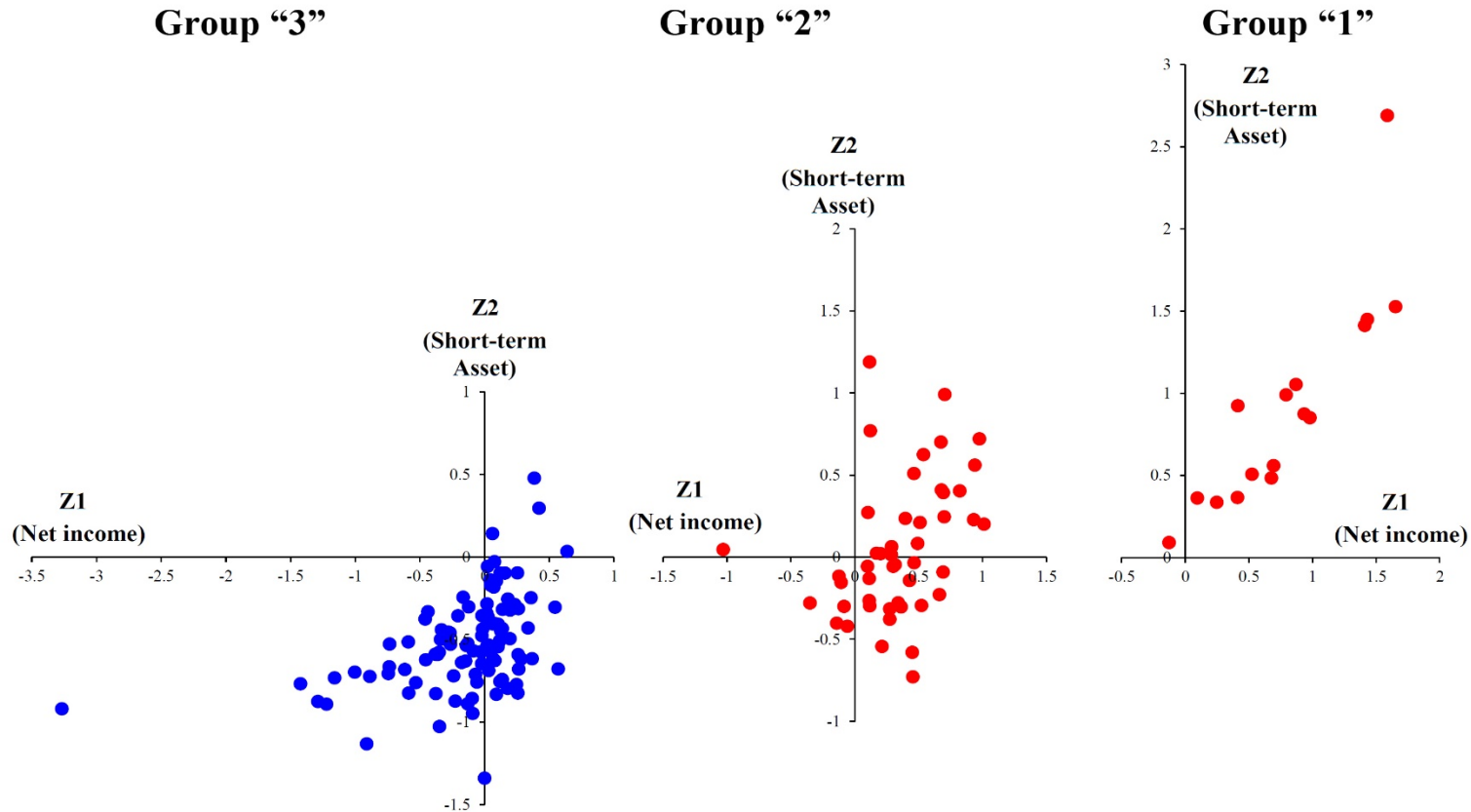Source: Yoshino and Taghizadeh-Hesary (2014)

Cluster analysis: the average linkage method

Dendogram Using Average Linkage

Source: Yoshino and Taghizadeh-Hesary (2014)

Grouping Based on Principal Component (Z1-Z2) and Cluster Analysis

Note: Group 1 = healthiest SMEs; group 2 = in-between SMEs; group 3 = least healthy SMEs.

Source: Yoshino and Taghizadeh-Hesary (2014)

Case2: Analysis of SME credit risk using bank lending data: Case of Thailand

Routledge
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Small and Medium-Sized Enterprise (SME) Credit Risk Analysis Using Bank Lending Data: An Analysis of Thai SMEs

Naoyuki Yoshino[a,b], Farhad Taghizadeh-Hesary [b,c],
Phadet Charoensivakorn[d] and Baburam Niraula[a]

[a]Asian Development Bank Institute (ADBI), Tokyo, Japan; [b]Faculty of Economics, Keio University, Tokyo, Japan; [c]Graduate School of Economics, The University of Tokyo, Tokyo, Japan; [d]National Credit Bureau (NCB), Bangkok, Thailand

ABSTRACT
Small and medium-sized enterprises (SMEs) in Asia are frequently hailed as the backbone of the economies. However, the SMEs usually have severe difficulties with raising money. Considering the bank-dominated characteristic of economies in Asia, banks are the main source of financing, and the lack of a

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SME NPLs are still high

Banking Sector–Small and Medium-sized Enterprise Loans in Thailand

Item	2007	2008	2009	2010	2011	2012	Q2 2013
Loans Outstanding							
SME loans to GDP* (%)	32.6	32	28.9	28.2	31.2	32.1	33.7
SME loans to total loans* (%)	44.5	38.5	33.4	32.6	33.7	32.3	32.8
SME loans, total (B billion)	…	…	…	3,640	4,391	4,826	5,048
SME loans, PFIs (B billion)**	…	…	…	786	1,099	1,180	1,102
SME loans, commercial banks (B billion)	2,775	2,907	2,609	2,854	3,292	3,646	3,946
Total loans, total (B billion)	7,394	8,856	9,473	10,955	12,493	14,222	15,020
Total loans, PFIs (B billion)**	1,165	1,307	1,666	2,192	2,711	2,944	3,006
Total loans, commercial banks (B billion)	6,229	7,549	7,807	8,763	9,782	11,278	12,014
Nonperforming Loans*							
SME NPLs (B billion)	…	…	186	154	131	126	133
Gross NPLs (B billion)	…	…	376	313	266	254	264
SME NPLs to SME loans (%)	…	…	7.1	5.4	4	3.5	3.4
SME NPLs to total loans (%)	…	…	2.4	1.8	1.3	1.1	1.1
Gross NPLs to total loans (%)	…	…	4.8	3.6	2.7	2.3	2.2

Source: ADB (2014)

SME credit Risk Analysis using Bank Lending data

Description of Examined Variables

Series No.	Variable	Description	Mean	Minimum	Maximum
1	Initial amount	Principal amount	11,393,080	10,192	8,790,000,000
2	Past due days	Overdue days code	6.924817	1	11.00
3	Past due amount	Past due incurred	12,929,693	2	3,748,031,686
4	Total loans	Total loans lent	39,638,340	4	49,995,000,000
5	Outstanding amount	Outstanding amount	19,636,365	0	8,852,398,916

Source: Yoshino, Taghizadeh-Hesary, Charoensivakorn, Niraula (2015)

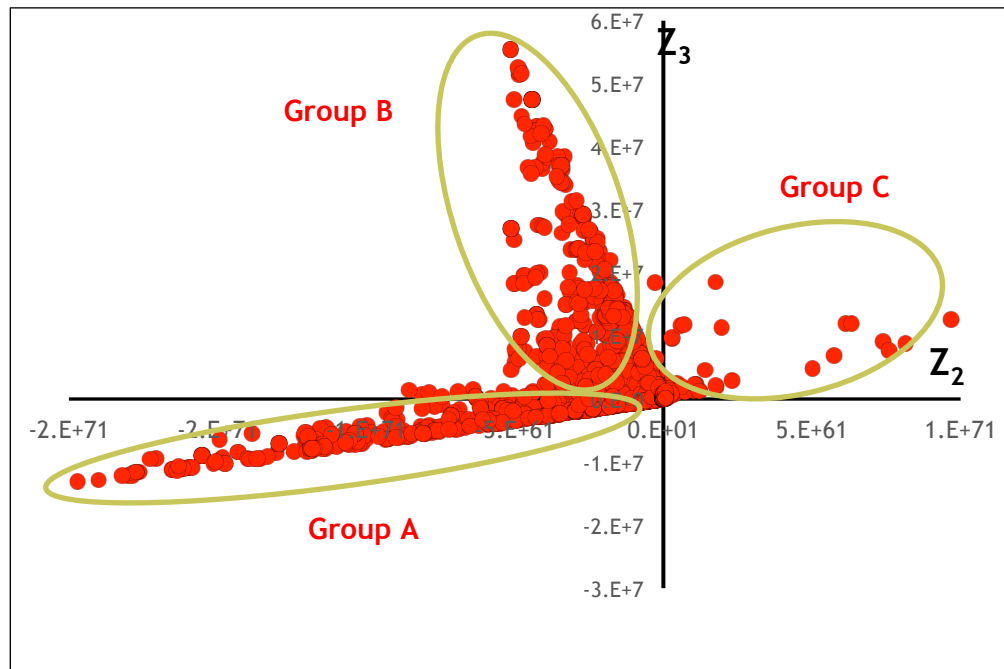# Statistical Analysis: PCA and Clustering

Dendrogram
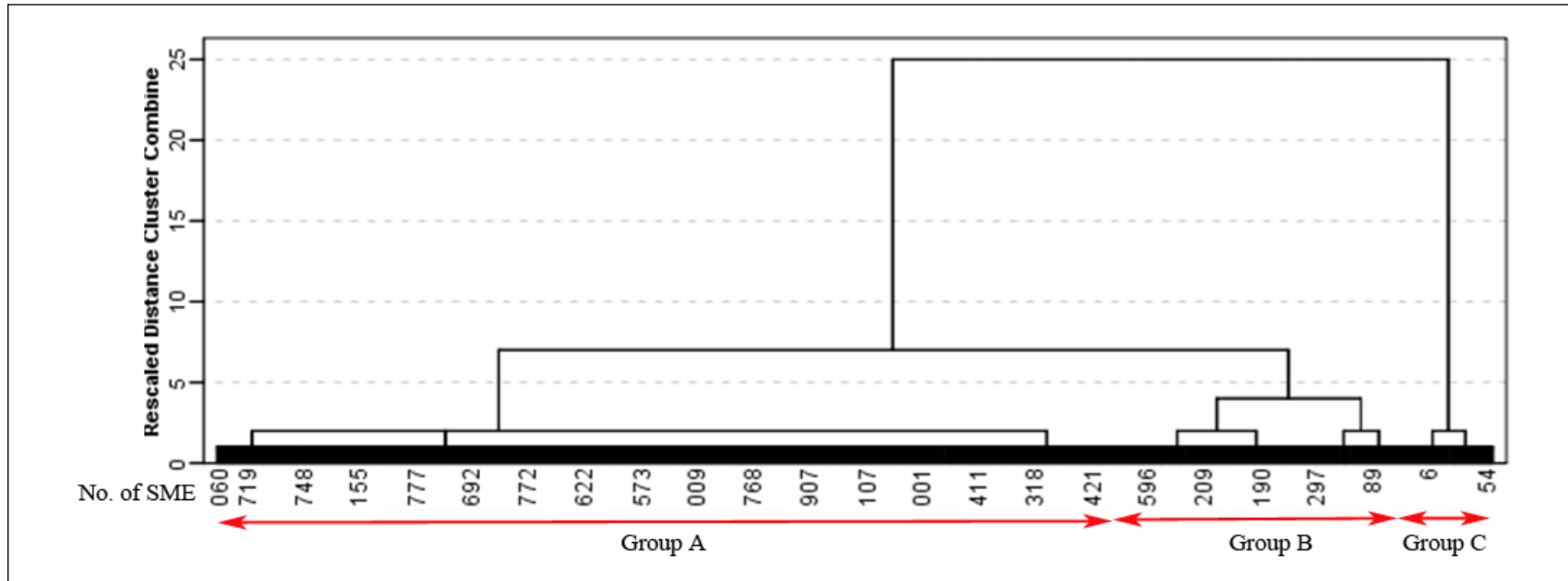
Source: Yoshino, Taghizadeh-Hesary, Charoensivakorn, Niraula (2015)

Statistical Analysis: PCA and Clustering

Distribution of Factors

Note: the x-axis is the Z2 component and the y-axis is the Z3 component. Each dot shows one SME.

Source: Yoshino, Taghizadeh-Hesary, Charoensivakorn, Niraula (2015)

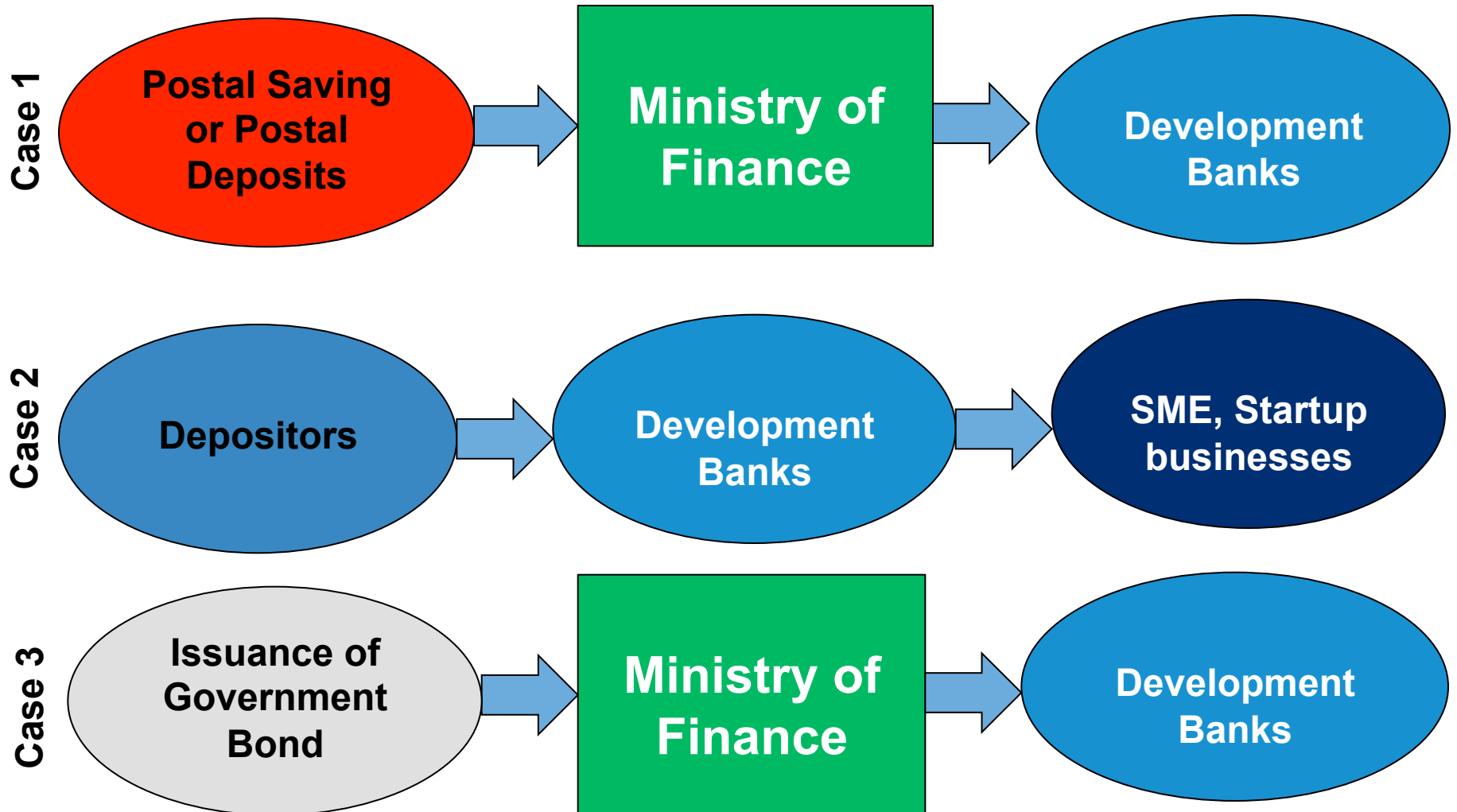# IV. Role of public financial institutions in filling the SME credit gap

4-1. Introduction

Public Financial Institutions (PFIs) can contribute to solving a number of market failures.

PFIs can promote financial sector development by offering long-term loans with lower interest rate to SMEs and helping to create inclusive financial sectors. SMEs have information asymmetry and many private FIs are not interested to lend them.

PFIs also enhance the climate for business and attract private sources of capital in the domestic economy.

PFIs can act as a catalyst and promoting and supporting SMEs how ever there are some considerations with this regard that will be highlighted in this section.

4-2- Three difference ways of funding PFIs

Case 1: Postal Saving or Postal Deposits → Ministry of Finance → Development Banks

Case 2: Depositors → Development Banks → SME, Startup businesses

Case 3: Issuance of Government Bond → Ministry of Finance → Development Banks
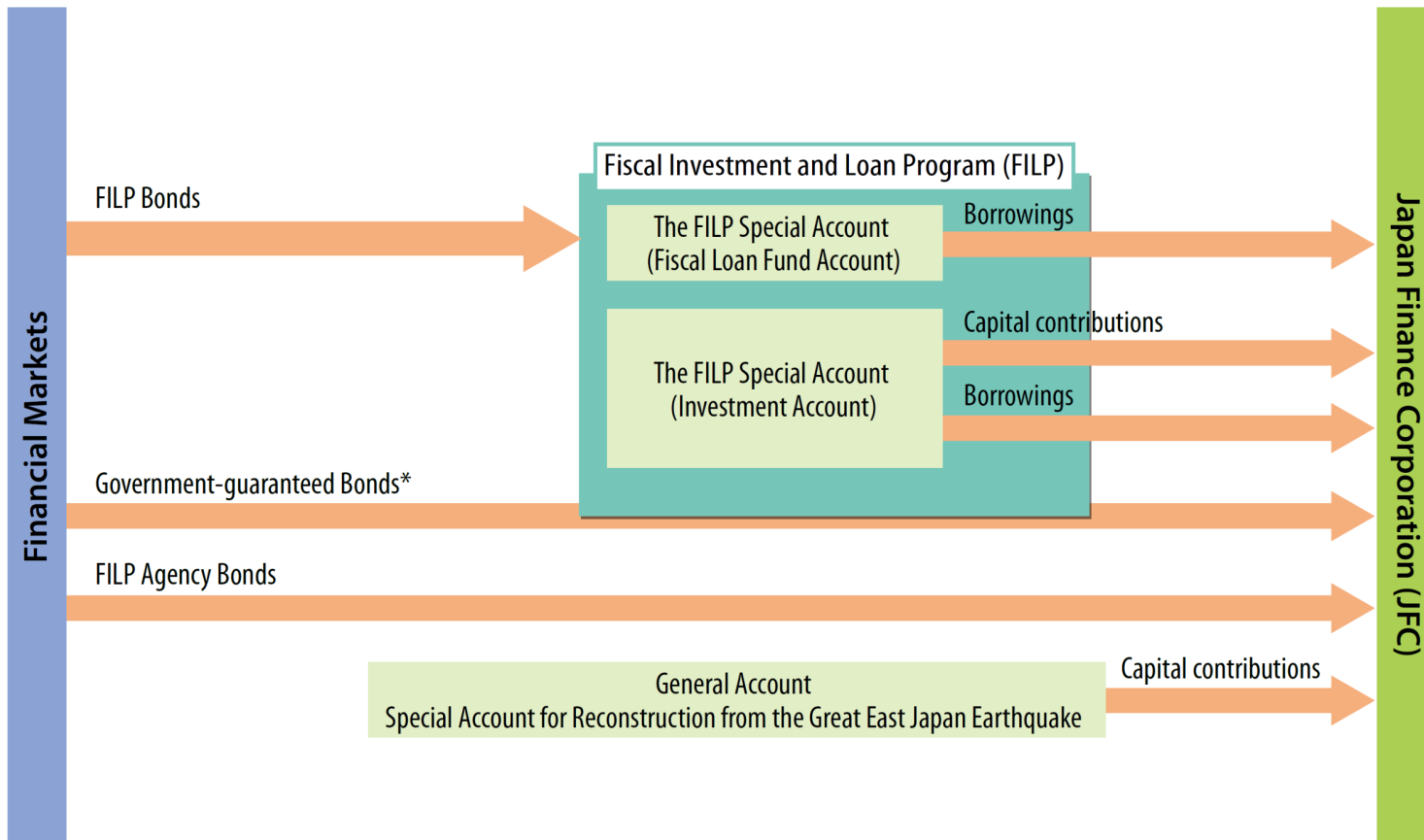
Funding of JFC (Case of Japan)

Funding Sources

JFC obtains funds through various sources such as borrowings from the Fiscal Loan Fund, Government-guaranteed Bonds, FILP Agency Bonds, and capital contributions from the government.


Funding Sources

Financial Markets → FILP Bonds → The FILP Special Account (Fiscal Loan Fund Account) → Borrowings → Japan Finance Corporation (JFC)

Fiscal Investment and Loan Program (FILP)
- The FILP Special Account (Fiscal Loan Fund Account) → Borrowings
- The FILP Special Account (Investment Account) → Capital contributions, Borrowings

Government-guaranteed Bonds*

FILP Agency Bonds

General Account
Special Account for Reconstruction from the Great East Japan Earthquake → Capital contributions

* Government-guaranteed bonds with a redemption period of five years or more are included in FILP.

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Role of JFC in Credit Guarantee to finance SMEs in Japan
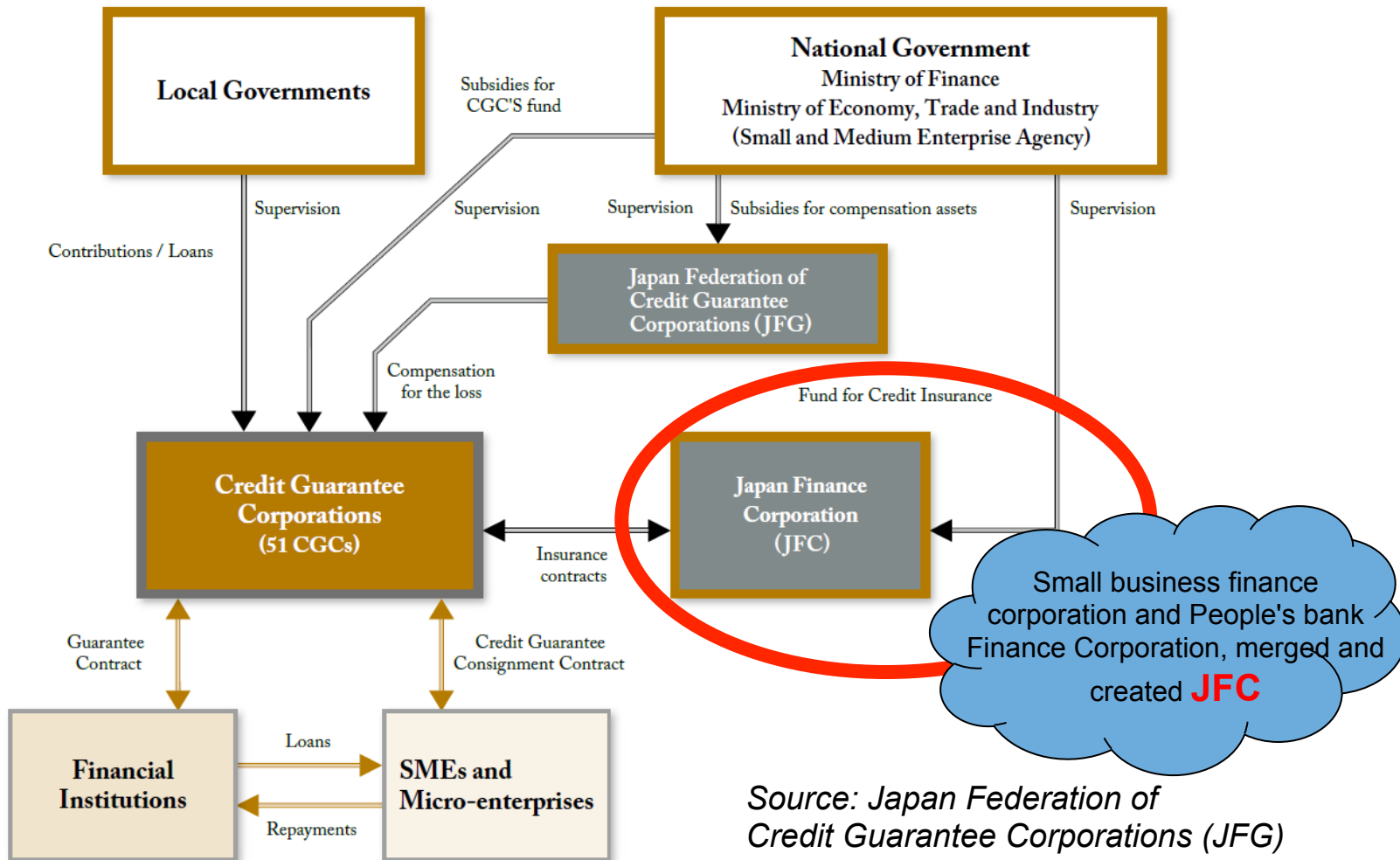
Source: Japan Federation of Credit Guarantee Corporations (JFG)

Policy-based financing of SME and Start-ups

## A)Support for Start-up and new businesses

The FY2015 loans to startups came to: **26,465 companies (102% compared to the previous fiscal year), 192.6 billion yen (87% compared to the previous fiscal year)**, which was the highest total for the previous 10 years based on number of companies. Lending has increased for women and young people in particular.

Start-up loans to women, youth and senior entrepreneurs

	FY2013	FY2014	FY2015
Women	4,630	5,070	**5,555**
Seniors (aged 55 and older)	3,045	3,997	**3,157**
Youth (aged 30 and younger)	2,198	2,182	**2,463**

Note: Women who also qualify as youth or seniors included in the Women category.

Prior to or Within 1 year of Start-up

Source: JFC (2016)

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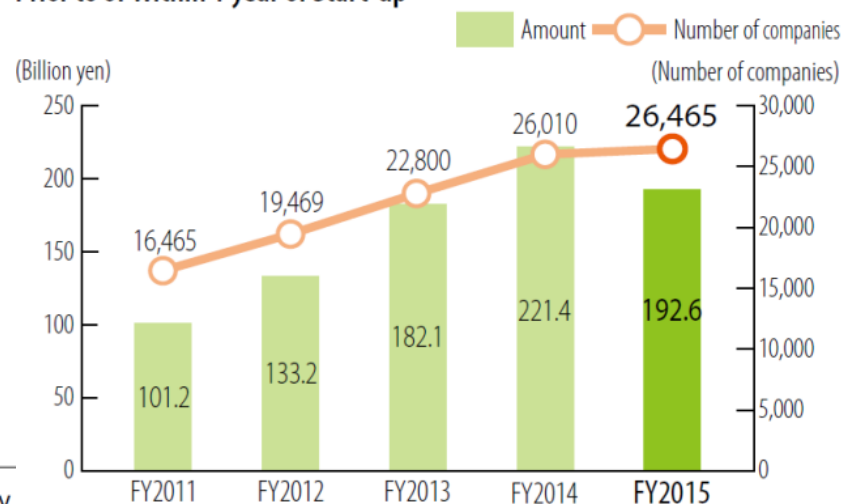
B) Support for SME revitalization

Against the backdrop of increasing needs of support towards revitalization due to the expiry of the SME Finance Facilitation Act, the Corporate Revitalization Loan in FY2015 came to **1,492 companies (112% compared to the previous fiscal year) and 102.1 billion yen (91% compared to the previous fiscal year).**

In addition, in order to successfully facilitate business revitalization of SMEs, which sustain regional economies and employment, JFC has been implementing information exchange meetings on business revitalization with private financial institutions and study meetings utilizing books, etc., published by JFC related to business revitalization. (In FY2015, meetings were held at a total of 150 organizations.)

Results of Support for Revitalization

		FY2013	FY2014	FY2015	Compared to the previous fiscal year
Corporate Revitalization Loan	Number of companies	1,316	1,329	**1,492**	**112%**
	Amount	116.3 billion yen	112.0 billion yen	**102.1 billion yen**	**91%**
Capital Subordinated Loans (Revitalization-type)	Number of companies	654	535	**520**	**97%**
	Amount	56.1 billion yen	41.2 billion yen	**35.5 billion yen**	**86%**
DDS, DES (Note)	Number of companies	41	39	**54**	**138%**
	Amount	5.8 billion yen	4.2 billion yen	**4.8 billion yen**	**116%**

Note: DDS (Debt Debt Swap) is a financial technique for exchanging a part of an existing debt for a subordinated debt.
DES (Debt Equity Swap) is a financial method that seeks to improve companies financial constitution by equitizing a portion of existing liabilities.
These results are calculated by adding up the number of companies and amounts agreed by JFC for the corresponding period.

Source: JFC (2016)

C) Capital support

Capital subordinated loan

In FY2015, loans came to: **441 companies (120% compared to the previous fiscal year), 28.3 billion yen (125% compared to the previous fiscal year).**

Note: A loan program for providing capital-like funds for reinforcing the financial standing of small and medium enterprises (SMEs).
The feature of this loan program is unsecured/unguaranteed debt, and subordinated to other debts at the time of legal bankruptcy proceedings. In addition, it can be regarded as self-owned capital on financial inspection.

Results of Capital Subordinated Loans

	FY2013	FY2014	FY2015
Number of companies	664	369	**441**
Amount	51.4 billion yen	22.7 billion yen	**28.3 billion yen**

Note: The high perfomance in 2013 was due to the release of supplementary budget at the end of 2012.

Source: JFC (2016)

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D) Support for Social Businesses

Loans for Social Business in FY2015 were provided to **7,746 loans (128% compared to the previous fiscal year)**, totaling **60.7 billion yen (117% compared to the previous fiscal year)**, marking the highest total on record.

Also, among the social business related loans, **1,177 loans were to NPOs (123% compared to the previous fiscal year)** for **7.2 billion yen (98% compared to the previous fiscal year)**, exceeding 1,000 loans for the first time.

Note: The Micro Unit supports businesses that tackle regional issues, such as supporting the care and welfare of the elderly and disabled, child rearing, regional revitalization and environmental conservation.

Loans related to social businesses [Note]
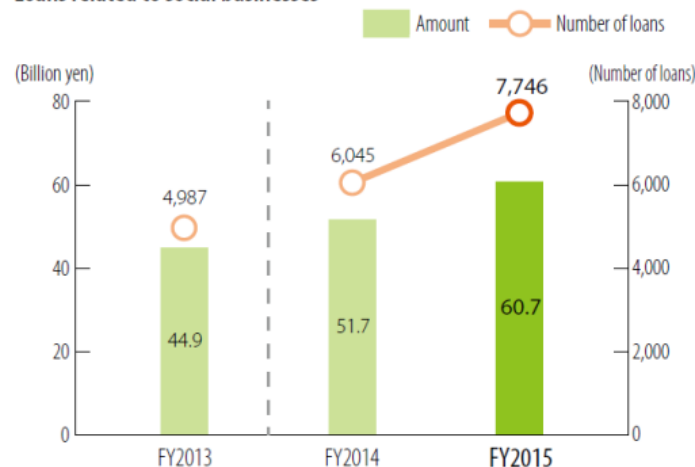
Breakdown of Loans

		FY2013	FY2014	FY2015	Compared to the previous fiscal year
Number of social business loans [Note]	**Number of loans**	4,987	6,045	**7,746**	**128%**
	Amount	44.9 billion yen	51.7 billion yen	**60.7 billion yen**	**117%**
(i) For NPOs	**Number of loans**	740	957	**1,177**	**123%**
	Amount	5.8 billion yen	7.3 billion yen	**7.2 billion yen**	**98%**
(ii) For nursing care and welfare businesses	**Number of loans**	4,759	5,379	**6,212**	**115%**
	Amount	43.4 billion yen	46.5 billion yen	**49.1 billion yen**	**106%**
(iii) For companies addressing social issues	**Number of loans**	–	383	**1,190**	**311%**
	Amount	–	3.4 billion yen	**9.8 billion yen**	**289%**

Note: Prior to FY2013 total loans to social businesses included loans to (i) NPOs and (ii) Care and Welfare businesses (excluding duplicate loans to (i), (ii)). However, in FY2014 loans to (iii) businesses for the purpose of resolving social issues (excluding (i), (ii)) were added and therefore no comparison to the previous year is given.

Source: JFC (2016)

E) Supporting SMEs in less productive sectors (Agriculture, …)

Support for new expansion by agricultural, forestry, and fisheries businesses

(i) Supporting Leaders of Agriculture (new entry farmers, large family run businesses, corporations)

Agricultural Management Framework Reinforcement Loans (name: Super L Loan) in FY2015, came to: **6,197 clients (103% compared to the previous fiscal year), 209.2 billion yen (111% compared to the previous fiscal year)**.

Total Super L Loans
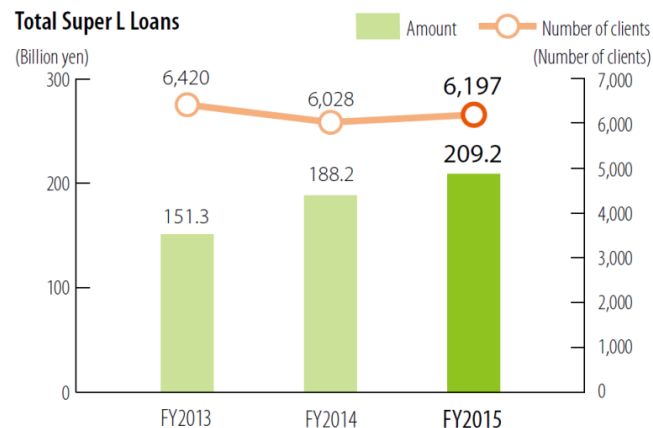
In FY2015, loans to new agricultural business and new entry farmers came to **1,784 clients**, and **44.1 billion yen**.

From FY2014, newly started loans to Agricultural Employment Fund for Youth, Etc., (Note) came to: **1,182 clients (416% compared to the previous fiscal year), 8.8 billion yen (324% compared to the previous fiscal year)**.

Note: Interest-free loans to support authorized new farmers certified by municipalities under the Young Farmers Plan as young people engaging in new farming businesses.

Source: JFC (2016)

**Loans to new farmers, new entrants to agriculture**
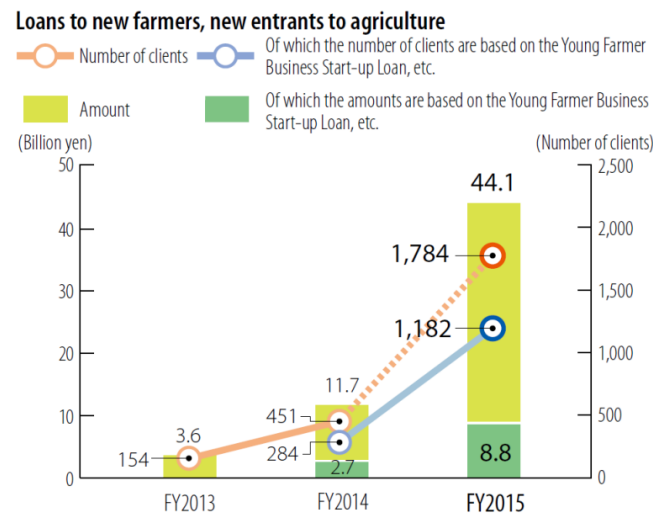
Note: Because the number of loans to agricultural management entities hiring new farmers (eligible entities of subsidized project for promoting the employment) in FY2015 includes "loans to new farmers and new entrants to agriculture", it cannot be compared to FY2014.
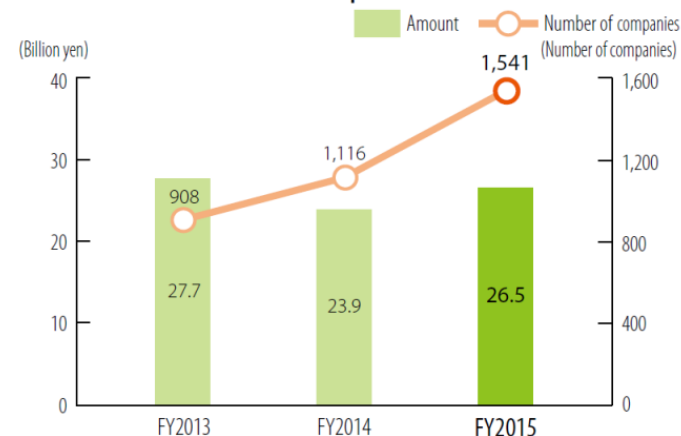
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F) Support for Overseas expansion of SMEs (trade finance)

Standby Letter of Credit Program

(Number of companies)
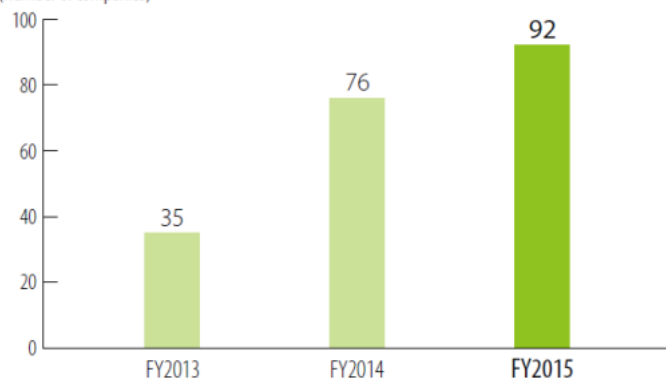
Loans for Overseas Investment and Expansion

Breakdown of business target countries and regions utilizing Loans for Overseas Investment and Expansion

	FY2013		FY2014		FY2015		
	Total		Total		Total		
	Number of companies	Ratio	Number of companies	Ratio	Number of companies	Ratio	Compared to the previous fiscal year
China (Including Hong Kong)	248	27%	300	27%	408	26%	136%
ASEAN	384	42%	384	34%	490	32%	128%
Thailand	122	13%	121	11%	138	9%	114%
Viet Nam	101	11%	86	8%	106	7%	123%
Indonesia	53	6%	46	4%	56	4%	122%
Philippines	36	4%	37	3%	80	5%	216%
Other ASEAN countries	72	8%	94	8%	110	7%	117%
Others	276	30%	432	39%	643	42%	149%
Total	908	100%	1,116	100%	1,541	100%	138%

Source: JFC (2016)

4-4- Important characteristics of PFIs

1- **Long-term financing (long-term loans) comparing to commercial private banks**

- Private banks resources (deposits) are short-term, 1year, 2 years, 3 years. Private banks are not able to provide long-term loans. So maturity of PFIs loans has to be long-term comparing to private banks.

2- Setting up the interest rate lower than private banks stable and fixed.

- Private banks often change their interest rates. However for stable growth, SMEs need stable and fixed interest rate.
- Private banks has to pay tax and they have to set up their own branch offices so require more costs comparing to government. Therefor private banks interest rate are higher than PFIs.
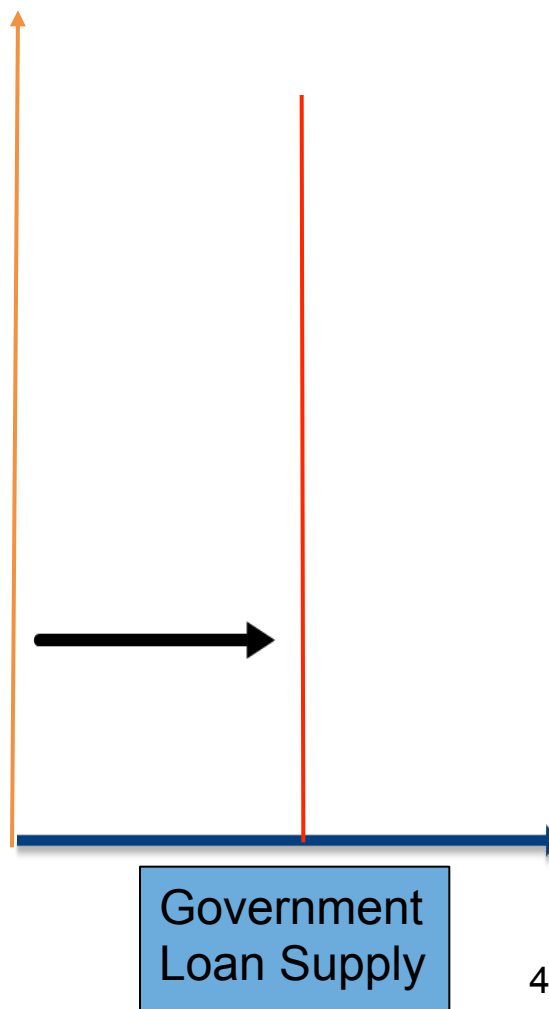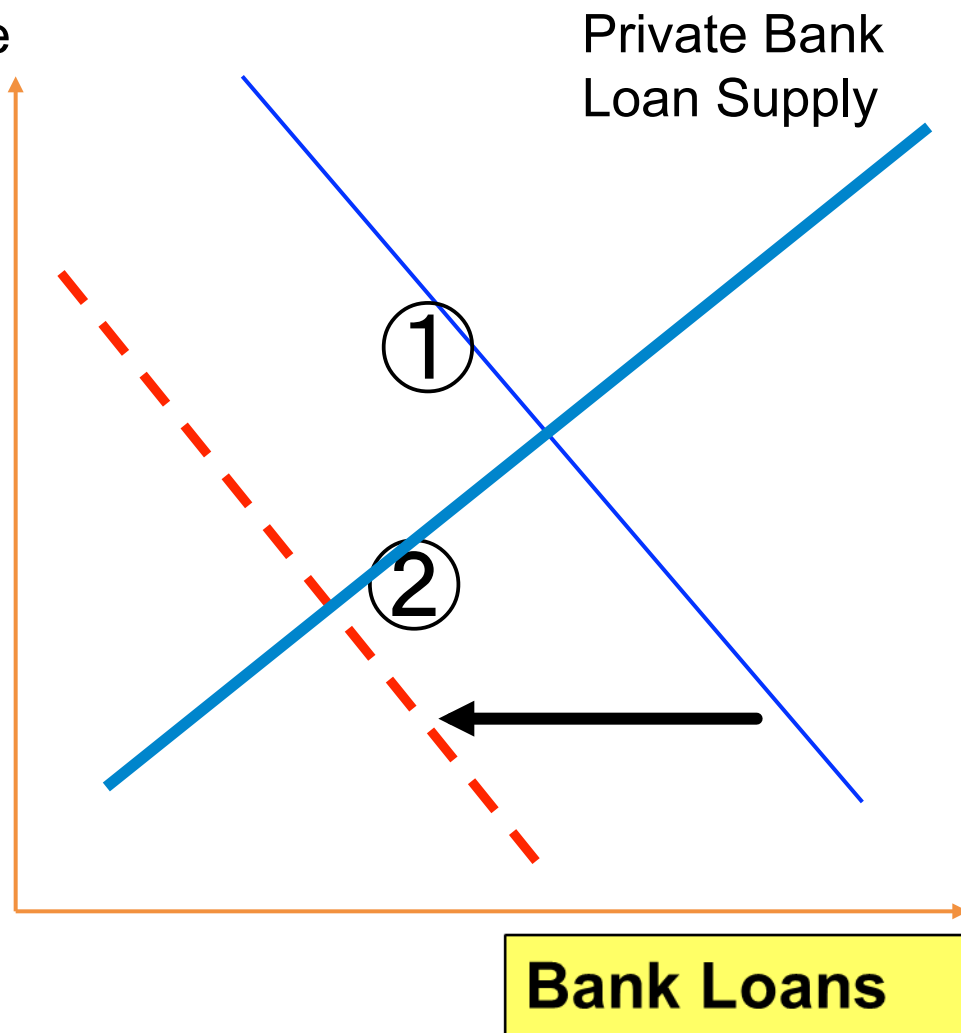
Crowding in Effects

Interest Rate

Private Bank Loan Supply

②

①

Bank Loans

Cowbell effect

Government Loan Supply

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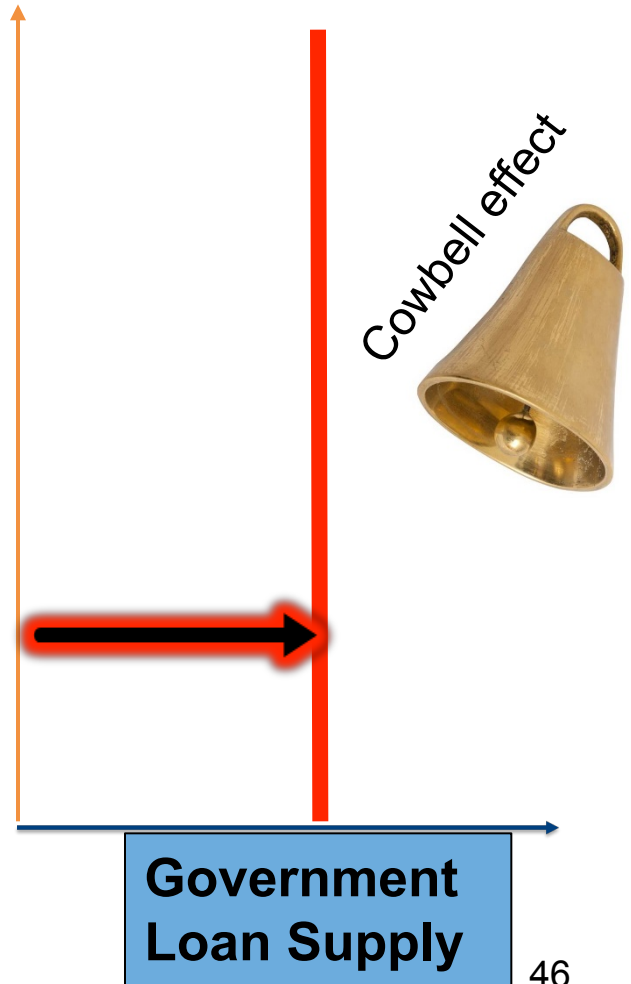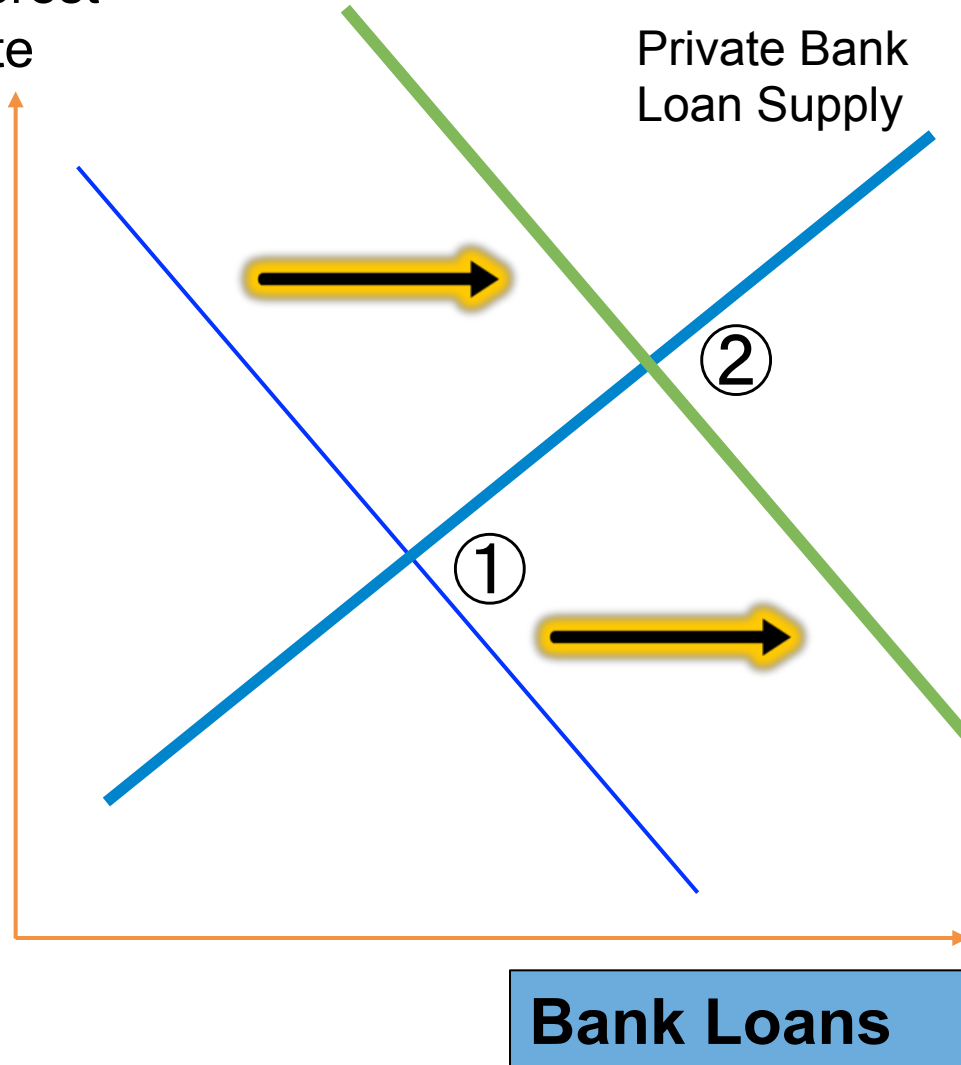
Crowding-out by Government

Interest Rate

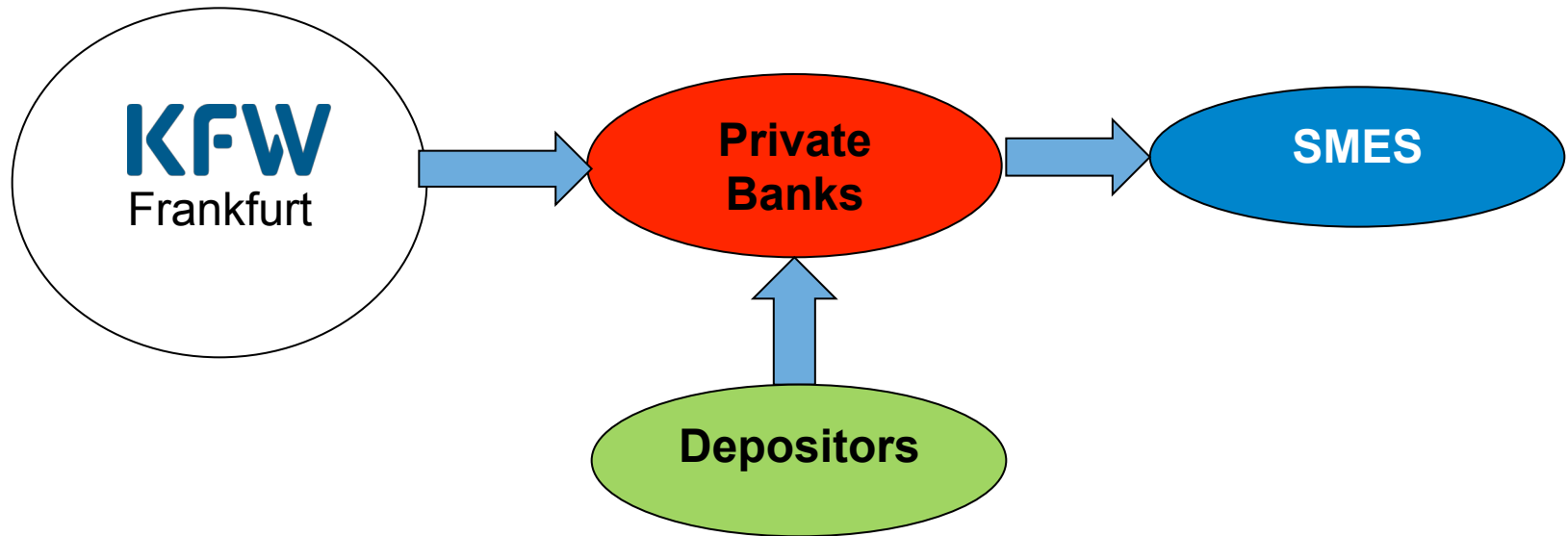Private Bank Loan Supply

① ②

Bank Loans

Government Loan Supply

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How to avoid crowding out:
Case of Germany, KfW (established 1948)
Formed after World War II as part of the Marshal Plan

- In Japan, (DBJ, JFC, and many other development banks) are always criticizing of crowding out, because they have branches all over Japan, and competing with private banks.

- The **KfW** is only located in Frankfurt, no braches, only lending to private banks for different purposes such as (SME, green energy, housing) not directly to SMEs, hence not competing with private banks.

IV. Conclusion and Policy Recommendations

Conclusion and Policy recommendations (1)

1. **Asymmetry of information and high transaction costs** are the major reason that many banks are reluctant to lend to SMEs.

2. **Role of credit risk database:** to remedy the asymmetric information problem and for making the bank trade finance easier, establishment of a nation wide credit risk database is necessary.

3. **Employing credit assessment techniques:** In the short run it is possible to implement various methods for measuring the credit risk and assessing the credit rating of SMEs. These methods could be used by lending institutions, credit guarantee corporations, or independent local rating agencies, using data regarding SMEs.

Conclusion and Policy recommendations (2)

4. **High collateral requirement for SMEs in CAREC region hinder their growth.**

5. **Development of Credit Guarantees schemes** reduce information asymmetries and share the risk incurred by banks when lending to SMEs.

6. **Improving financial skills,** in particular financial literacy, can address the demand issues on access to finance by enhancing financial competences and loan applications of SMEs.

7. **For lending from PFI:**
    A.   Lower interest rate, stable, and long-term loans by PFIs
    B.   Avoid bad effects of government lending through PFI:
        I.   Increase of government role
        II.   Crowd out private deposits and loans

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Editors:

Naoyuki Yoshino
Dean & CEO, ADBI
Professor Emeritus, Keio University, Japan

Farhad Taghizadeh-Hesary
Assist. Professor, Waseda University, Japan
Visiting Professor, Keio University, Japan

Thank you for your attention!
farhad@aoni.waseda.jp
www.linkedin.com/in/farhadth