

AFDC Workshop on SME Credit Guarantee

# Evolution of Credit Guarantee program In the Course of Economic Development

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Korea's Leading Think Tank **KDI**

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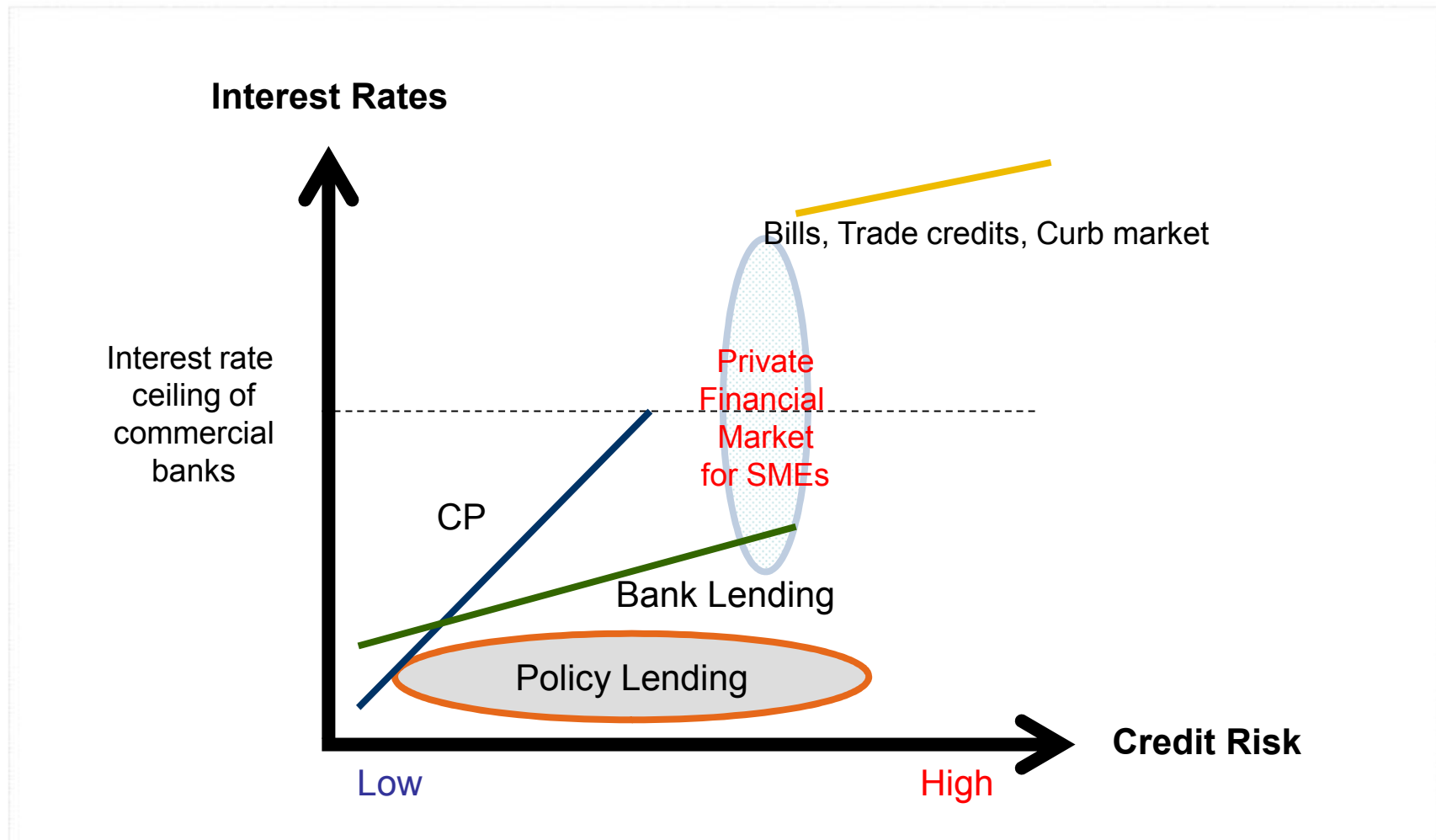
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Part-01 | Rationale for *Help* to SMEs

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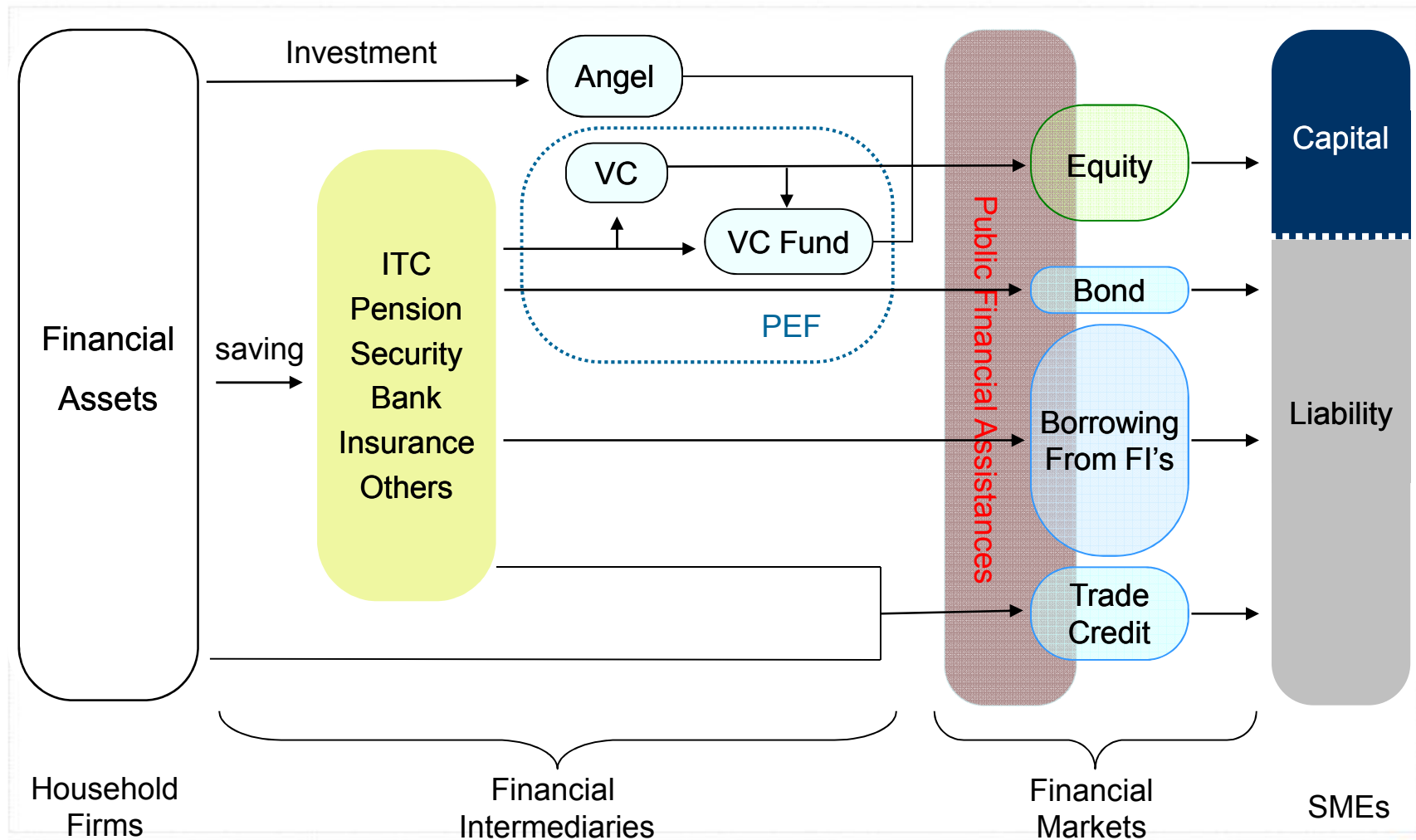
# Thin Private Financial Markets



# Justification for *Financial Help* to SMEs

- **Information asymmetry between lenders and borrowers**
  - Lenders do not fully know borrowers' creditworthiness
  - Small borrowers lack collaterals, too
- **High (unit) transaction costs involved in providing credits**
  - Credit evaluation asks for sunk costs regardless of size
  - Small borrowers tend to be riskier from bank's standpoint so as to be under thorough review
- **Consideration of "Social Return"**
  - Under underdevelopment of financial markets, private financial intermediation is not enough to meet social needs
  - *Financial and Economic additionalities*

# Structure of SME Financial Markets



Part-02 | **Discussions on CG**

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# Objectives of Credit Guarantee

## ❖ To attain social optimum

- Information asymmetry and high transaction costs hamper optimal resource allocations
- CG enables to lead to better allocations

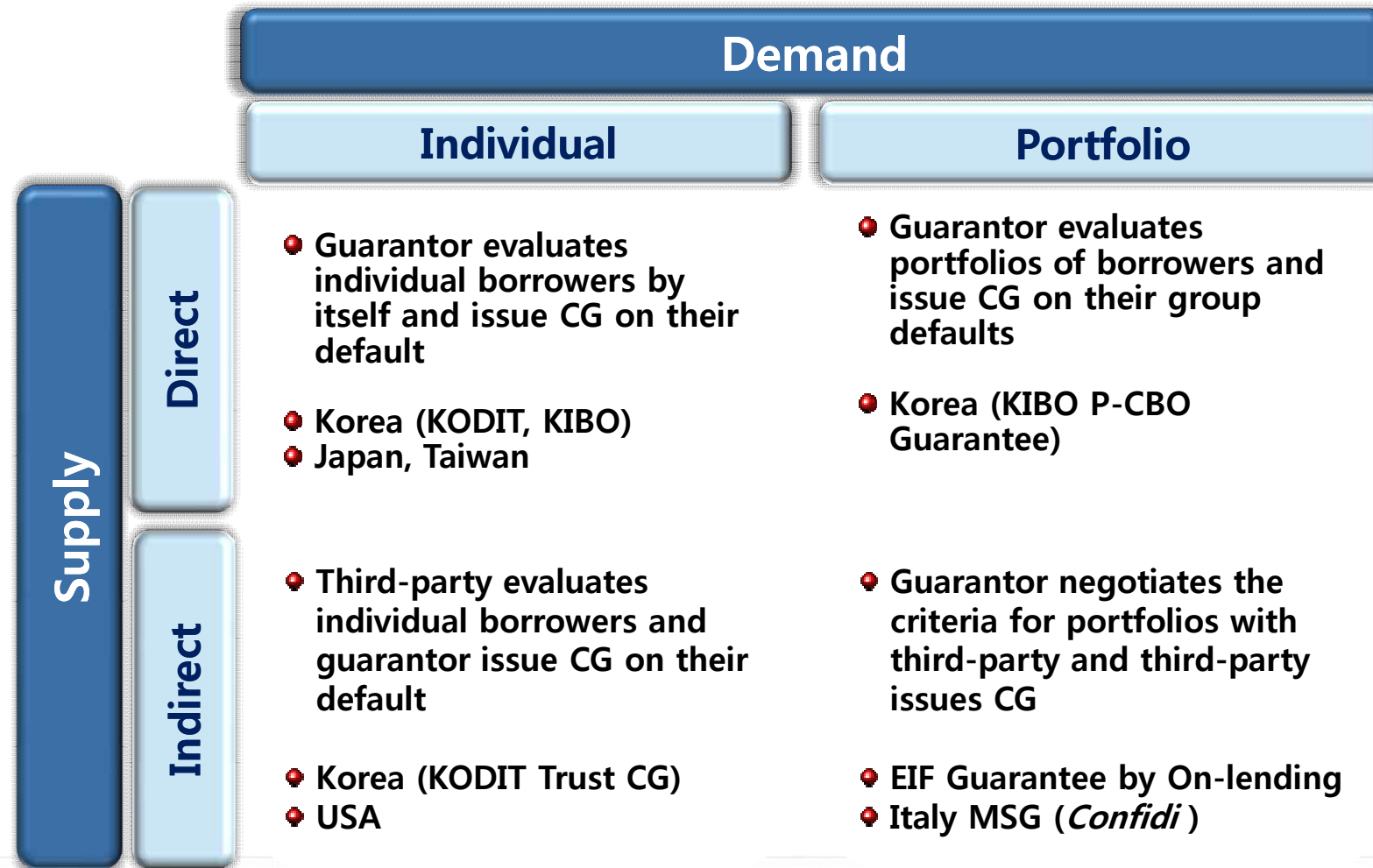
## ❖ To achieve high economic growth

- Capital should be supplied to productive sectors for econ growth, but in vain due to the underdevelopment of financial market
- CG partly rations scarce resources to productive sectors

## ❖ To consider social integration

- Socially weak agents are hardly accessible to formal financing
- CG provides funds with the agents to create income

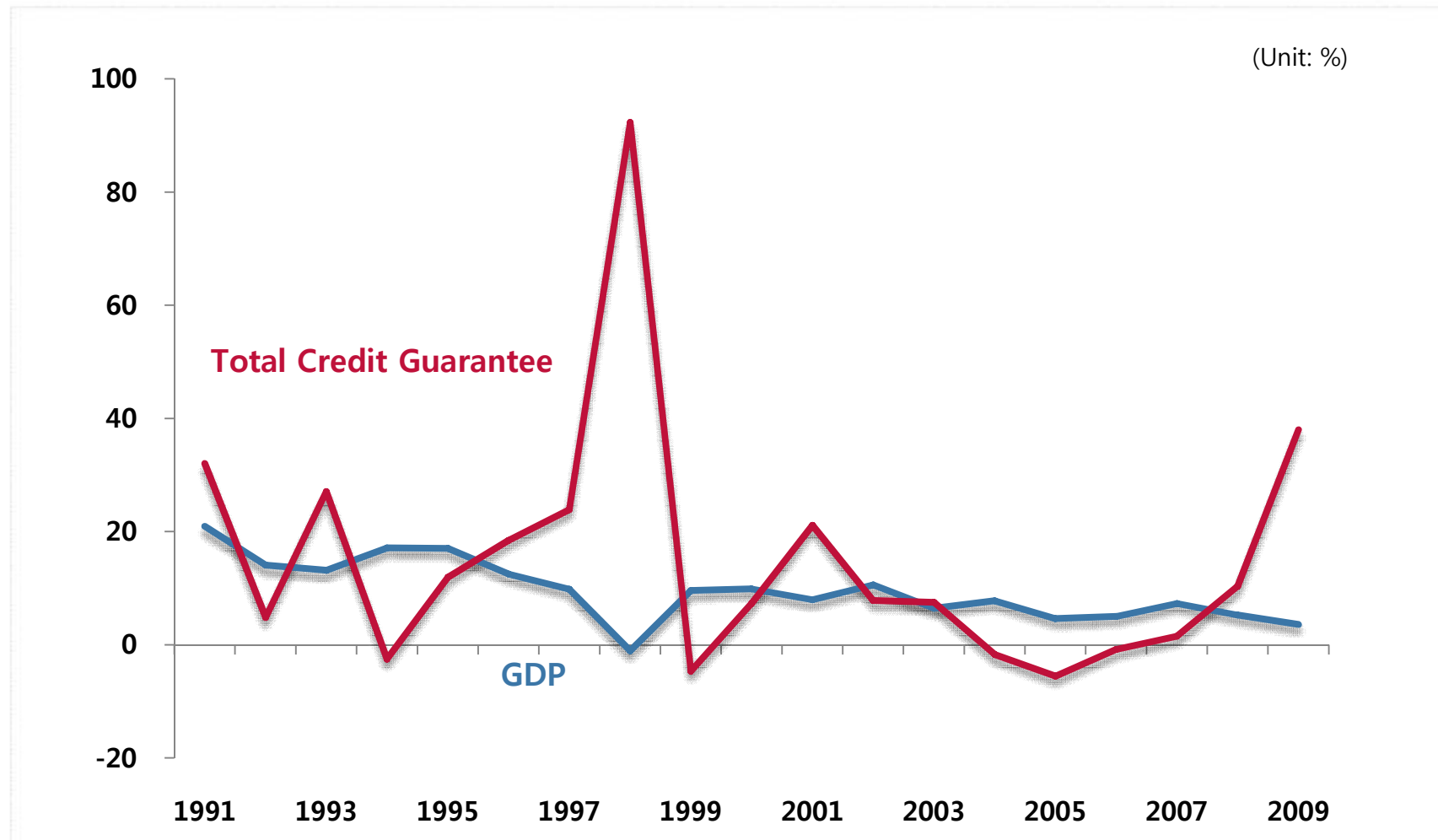
# Taxonomy of CG



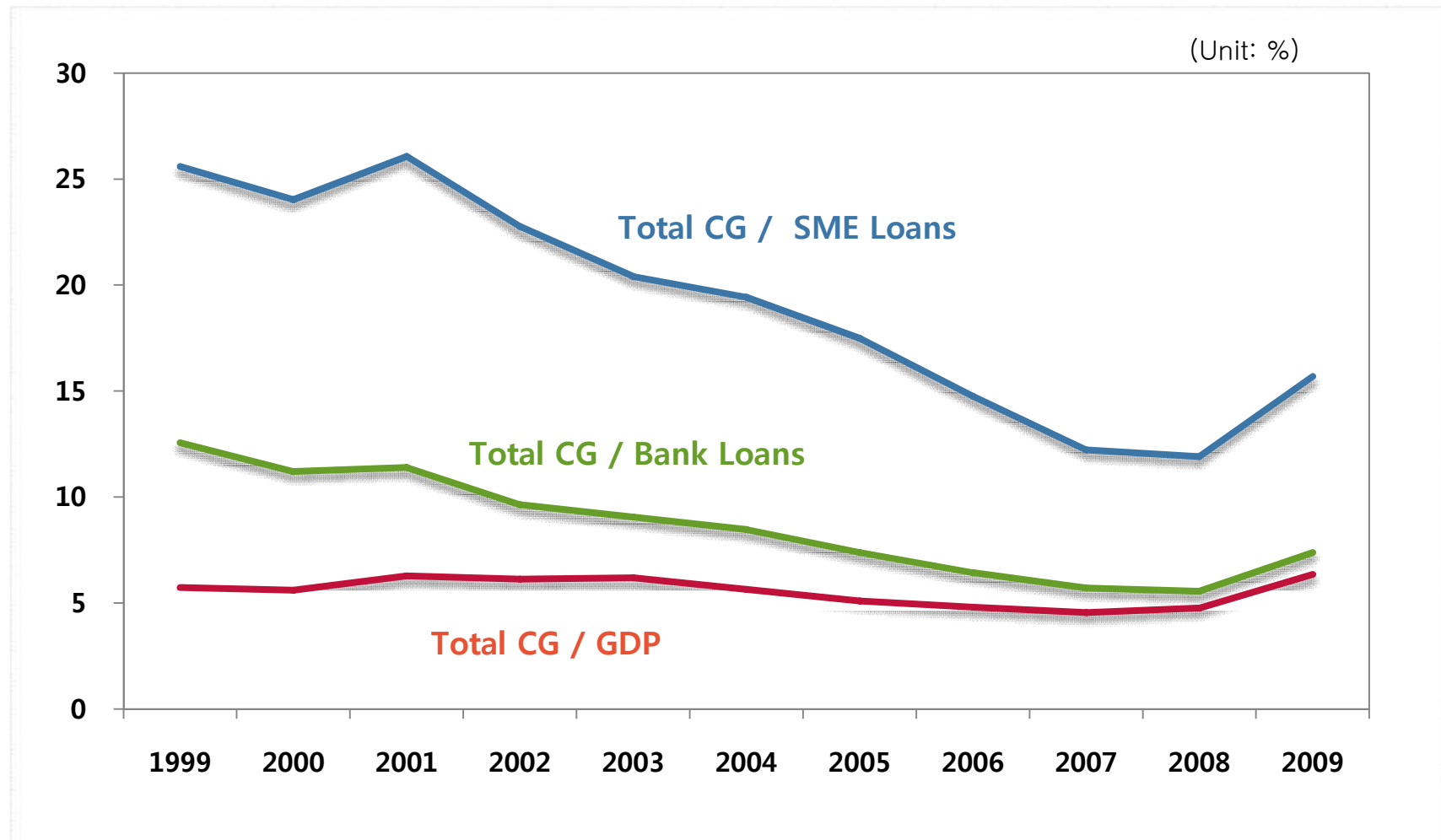
# Policy Implications

- **CG is essential for economic growth for the underdeveloped**
  - Finance helps economic development
  - Either public or private risk sharing scheme contributes to more and wider financial intermediations
- **CG plays a role as a economic stabilizer**
  - CG amounts tend to be counter-cyclical
  - Governments use CG as a policy tool for recession and crisis
- **CG becomes less important as financial development**
  - CG can distort resource allocation and hinder financial market development
  - Need for phase-out scheme

# GDP and CG Growth Rates: Korea



# CG ratios out of Loans: Korea



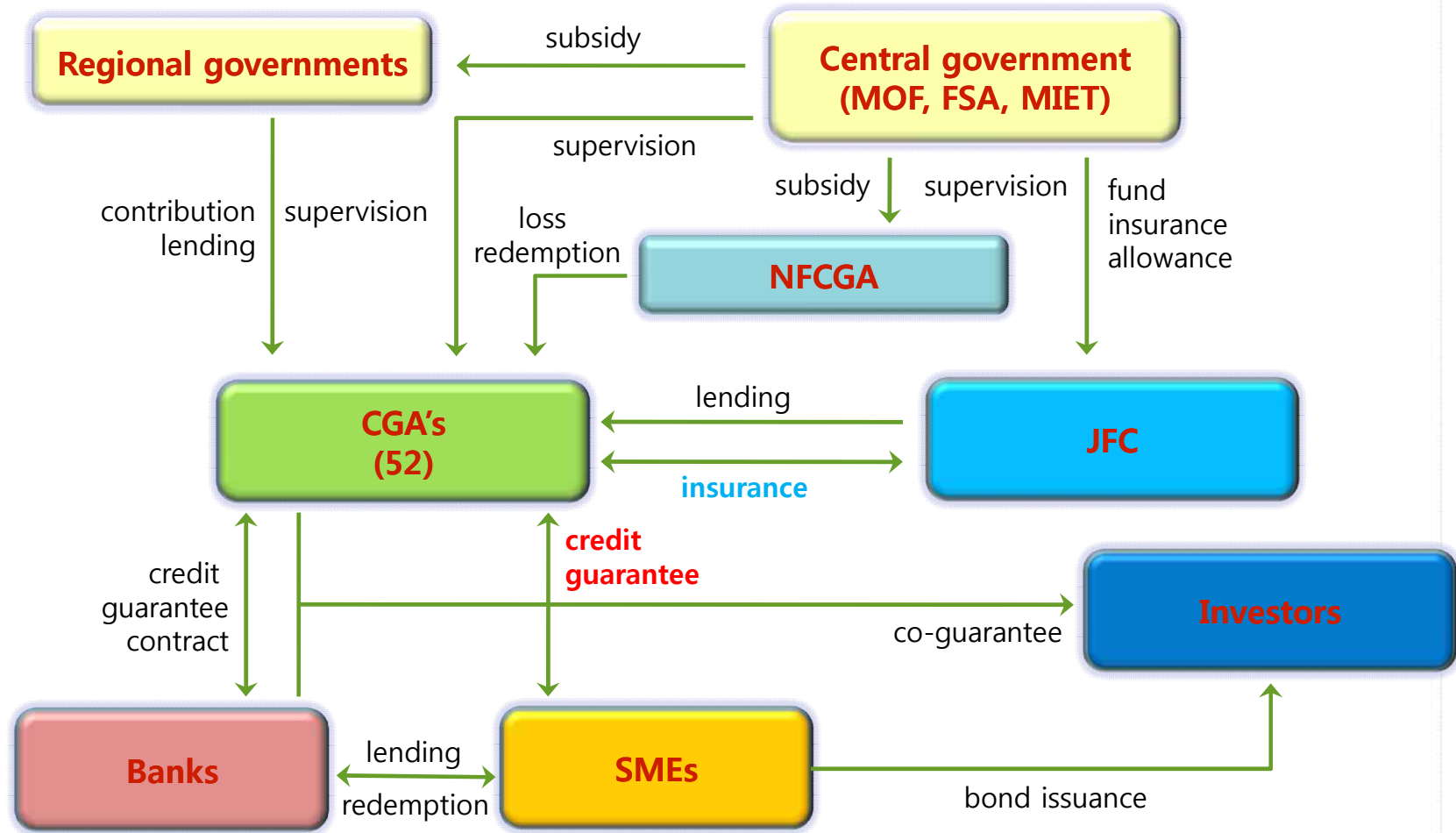
**Part-03 | International Experiences**

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# Credit Guarantee System in Japan

- **Tokyo CGA established in 1937 as the first guarantor in Japan**
  - SMEs felt financing difficulty in the wake of the Great Depression
  - 1939: Kyoto, 1942: Osaka
  - 1950: SME Credit Insurance Act, 1958: JASME (JFC, now)
- **Two-tier public guarantee system**
  - 52 regional CGAs in prefectures
  - Government role: contribution, reguarantee
- **Operation**
  - 100% guarantee; Guarantee multiplier: 35~60 times to fund
  - Expected loss rate: 2%; Recovery ratio: around 30%

# Credit Supplementation System of Japan



# Credit Guarantee System in Taiwan

## ◆ SMEG established in 1974

- SMEs suffered from financing difficulty due to Oil Shock
- Invested by governments and financial institutions
- Jurisdiction: from Ministry of Finance to Ministry of Economy ('03)

## ◆ Contribution to SMEG

- 80% comes from governments
- Contribution ratio by Financial Institutions =  
$$0.4 * \text{benefit} + 0.2 * \text{usage} + 0.2 * \text{size} + 0.1 * \text{profit} + 0.1 * \text{risk}$$

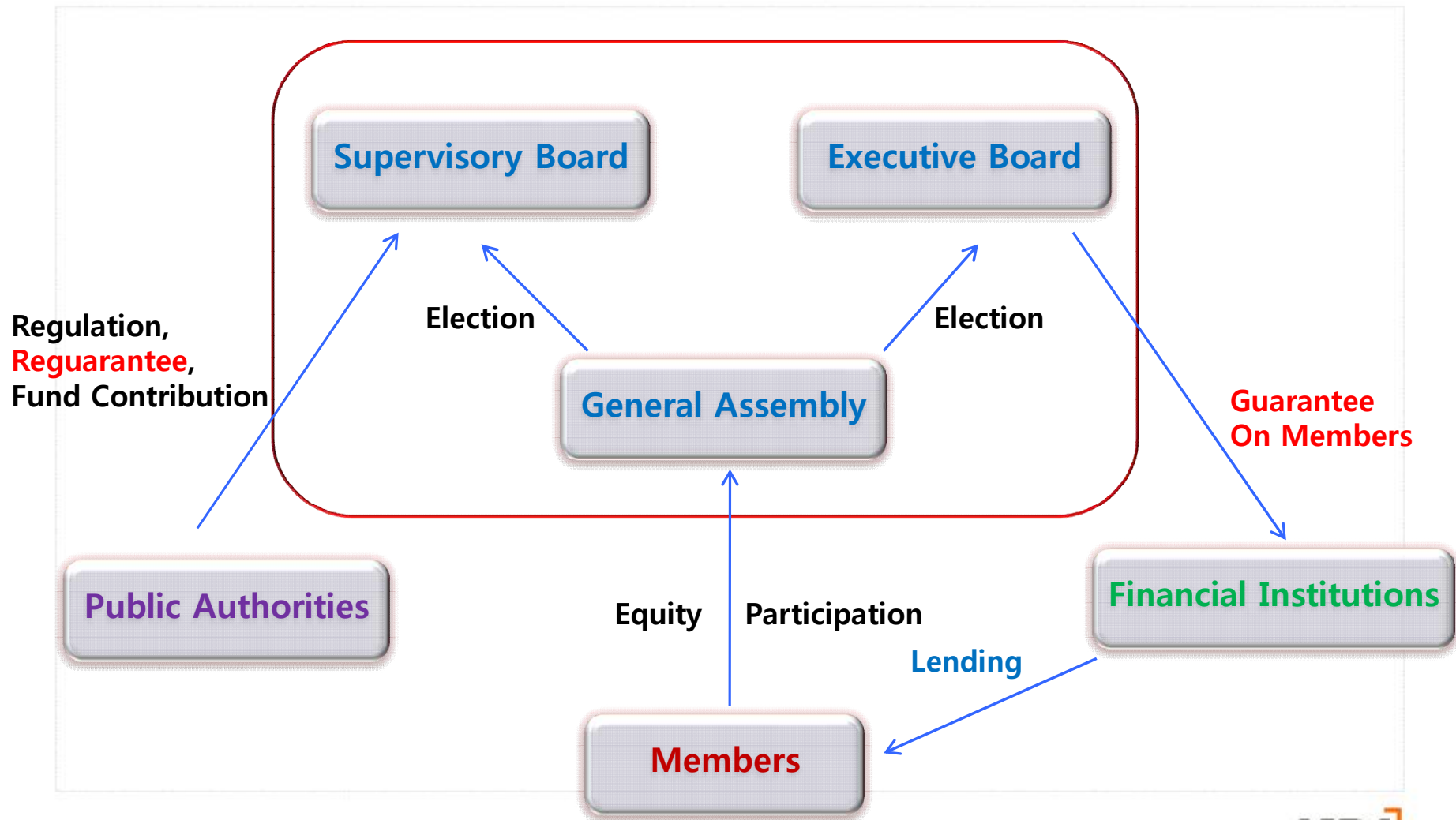
## ◆ Operation

- Partial guarantee: 70~80%; Guarantee multiplier: 20 times
- Subrogation payment: 3~5%; Recovery ratio: around 40%

# Credit Guarantee System in China

- **CG started with the inception of Modern Enterprise System**
  - China Investment and Credit Guaranty Company established in 1993 to support technology-based small firms
  - Public CGCs expanded in 1998 when SMEs experienced financing difficulty due to East Asian Financial Crisis
  - Private CGCs have grown rapidly since 2003 when SME Promotion Law was promulgated
- **Three-tier CG system but incomplete yet**
  - County-Municipal-Province level: no central level CGC
  - No specific law for CG: CGCs run commercial biz beyond credit
  - Complex supervision: NDRC, PBOC, MOF, MOC, MOHRSS, etc.

# Mutual Guarantee Scheme: Italian *Confidi*



Part-04 | **CG Reform in Korea**

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# Questions for CG Reform

## ❖ Is CG a First-best solution? NO!

- First-best solution directly solves fundamental causes
- E.g. credit bureau to reduce information asymmetry

## ❖ Is CG a Second-best solution? It depends!

- Second-best solution must be best among alternatives
- E.g. Outperformed CG to create financial and economic additionalities

## ❖ Is Korean CG a Second-best solution? Maybe NOT!

- Need to look into data
- If not, should reform CG

# CG in Korea

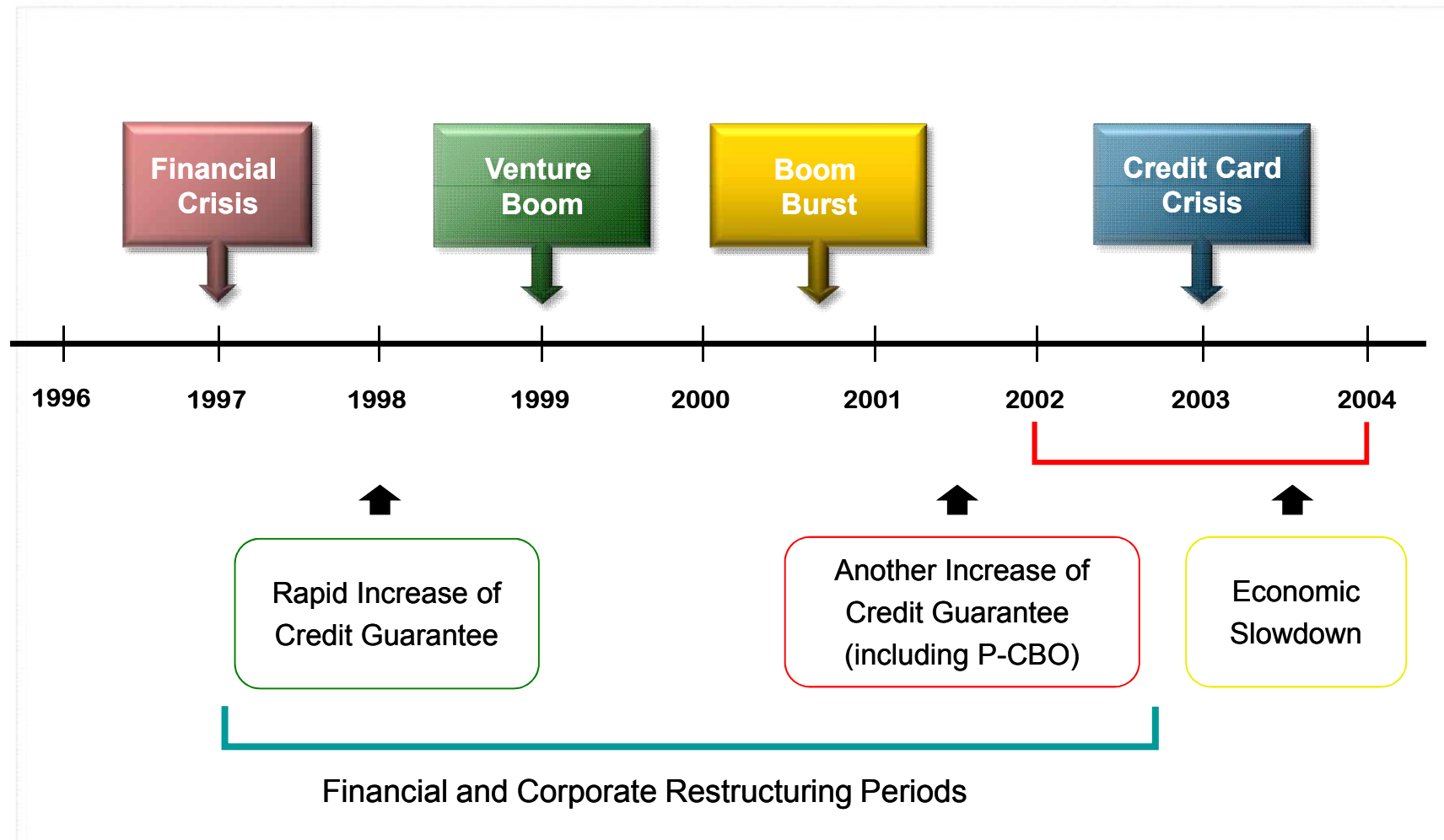
## • Characteristics

- Publicly sponsored guarantee: KODIT, KIBO, Regional CG Funds
- Policy measures for business cycles and crisis management
- Social policy flavor

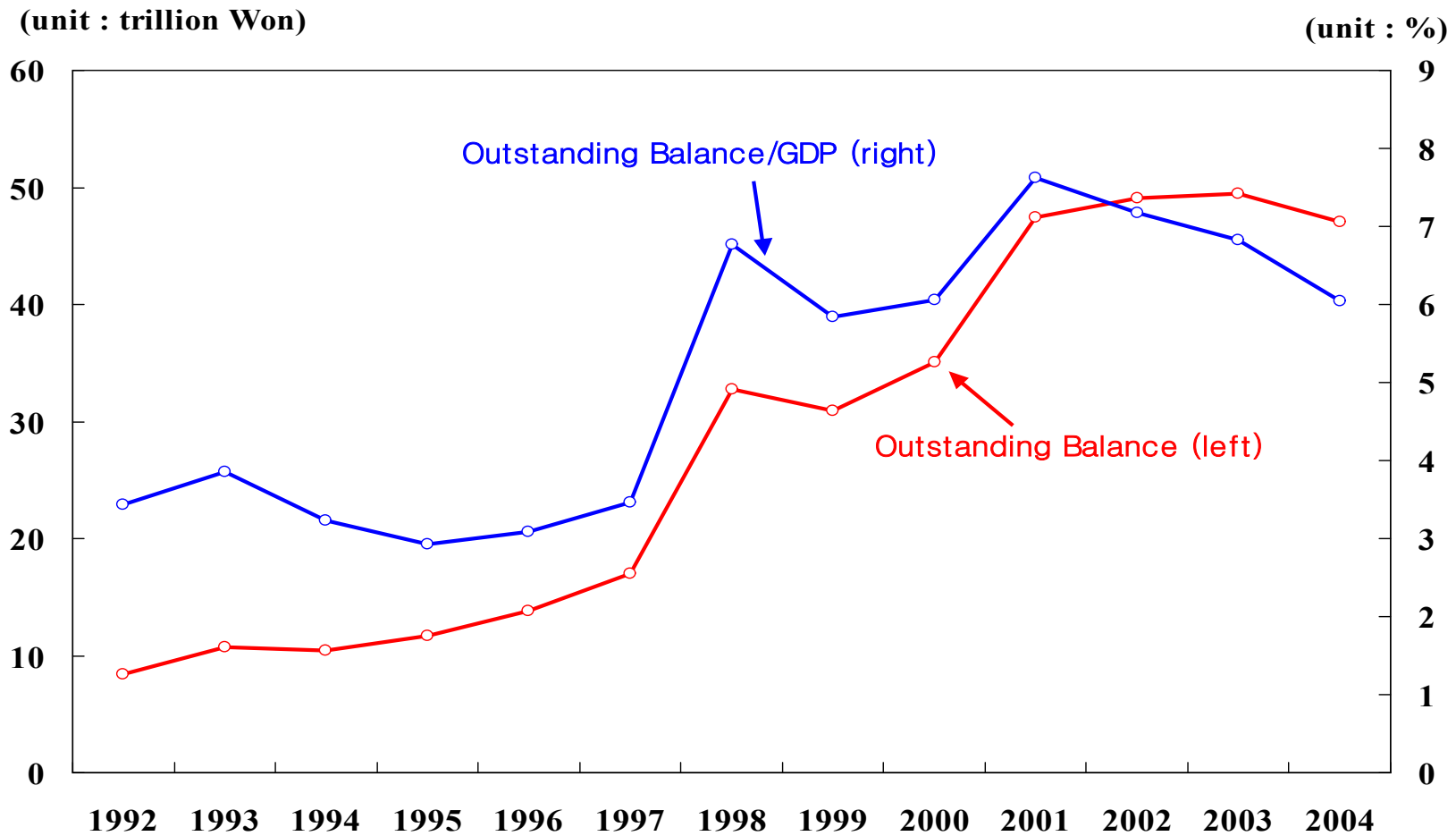
## • Problems

- Too much of amounts and monotonically increasing
- Ineligible recipient firms existing: large ones with information asymmetry resolved
- Very costly: high default rate and low recovery rate
- Deterring financial innovations

# Recent History of CG in Korea

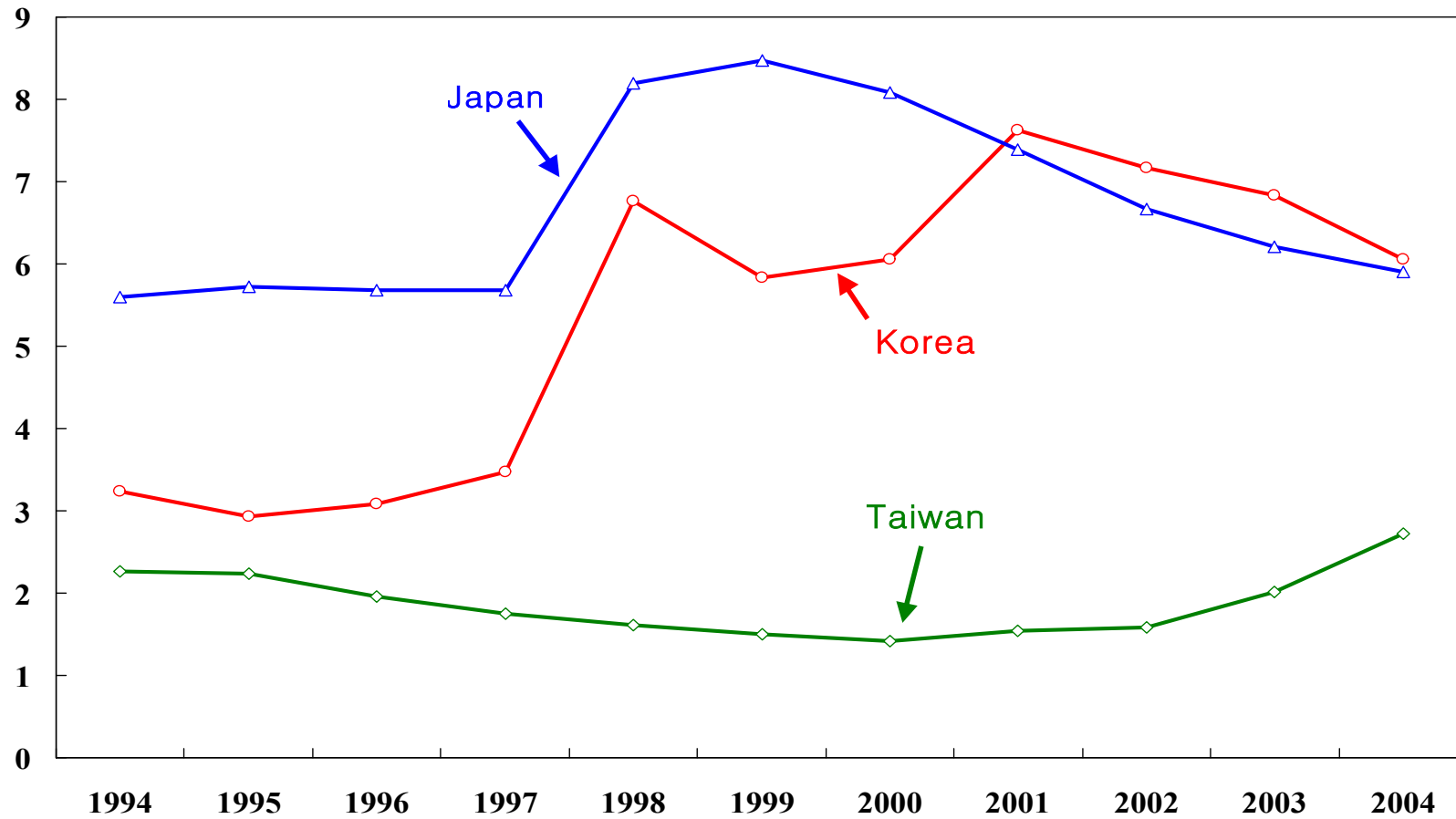


# CG Balance before 2005 Reform

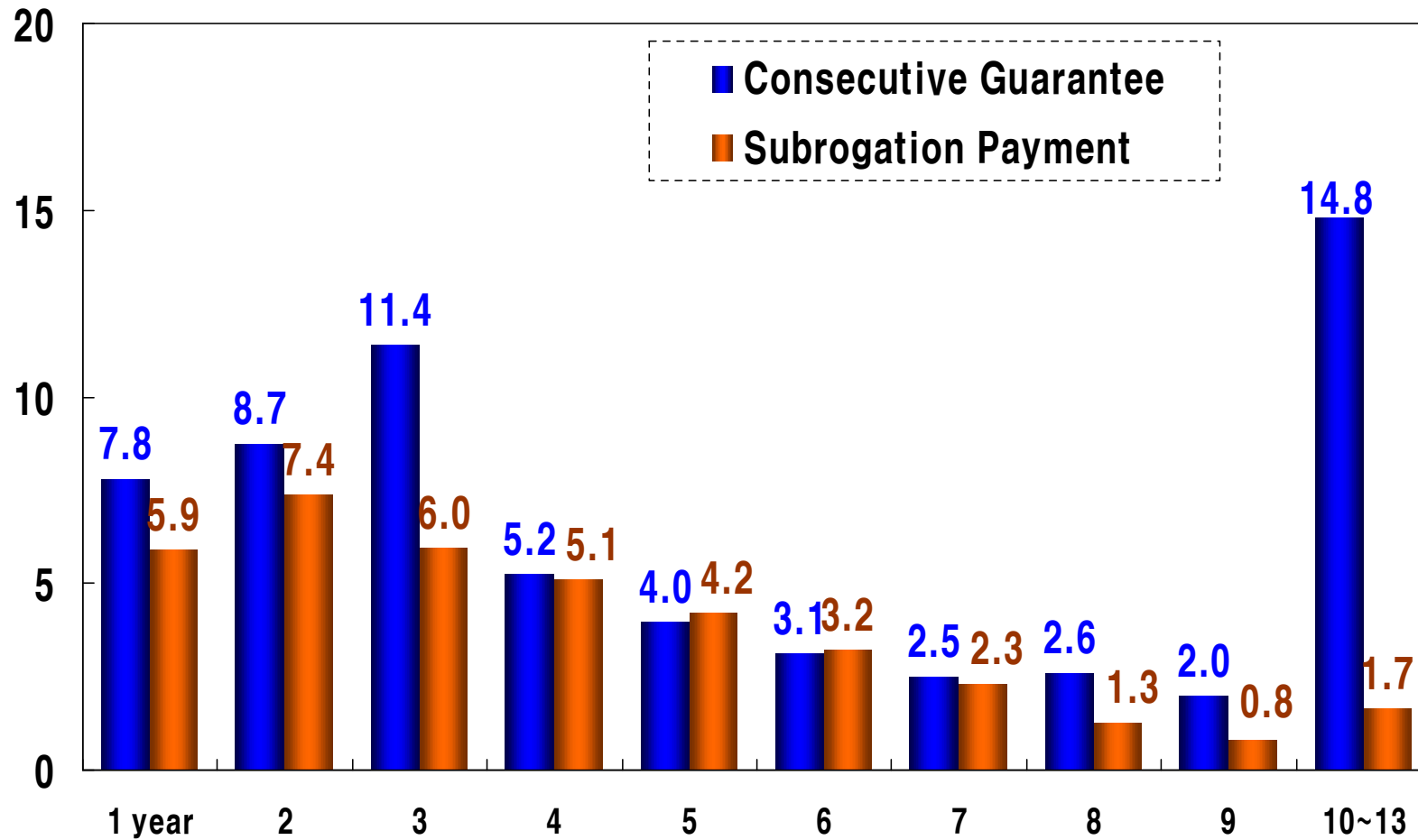


# International Comparison

(unit : %)



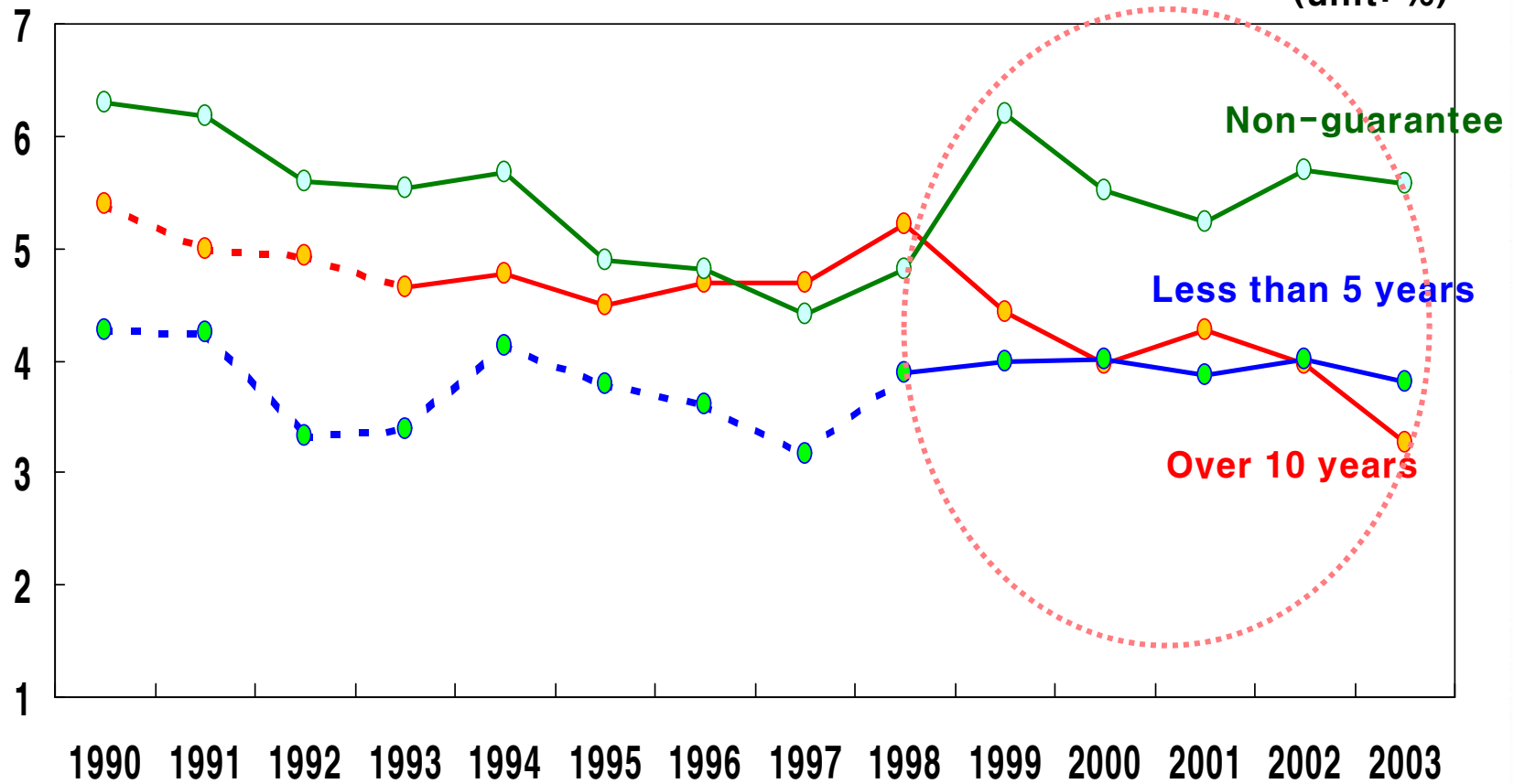
# Graduation and Subrogation Payment



# Performance Evaluation

## Operating Profit to Sales Ratio by Guarantee Periods

(unit: %)



# Sampling for Policy Evaluation

- 1) Manufacturing firms established during 1995 and 1998
- 2) Asset > 300 million KRW
- 3) financial statements available at 3rd, 4th and 5th years after establishment

## Brief snapshot of sample SMEs

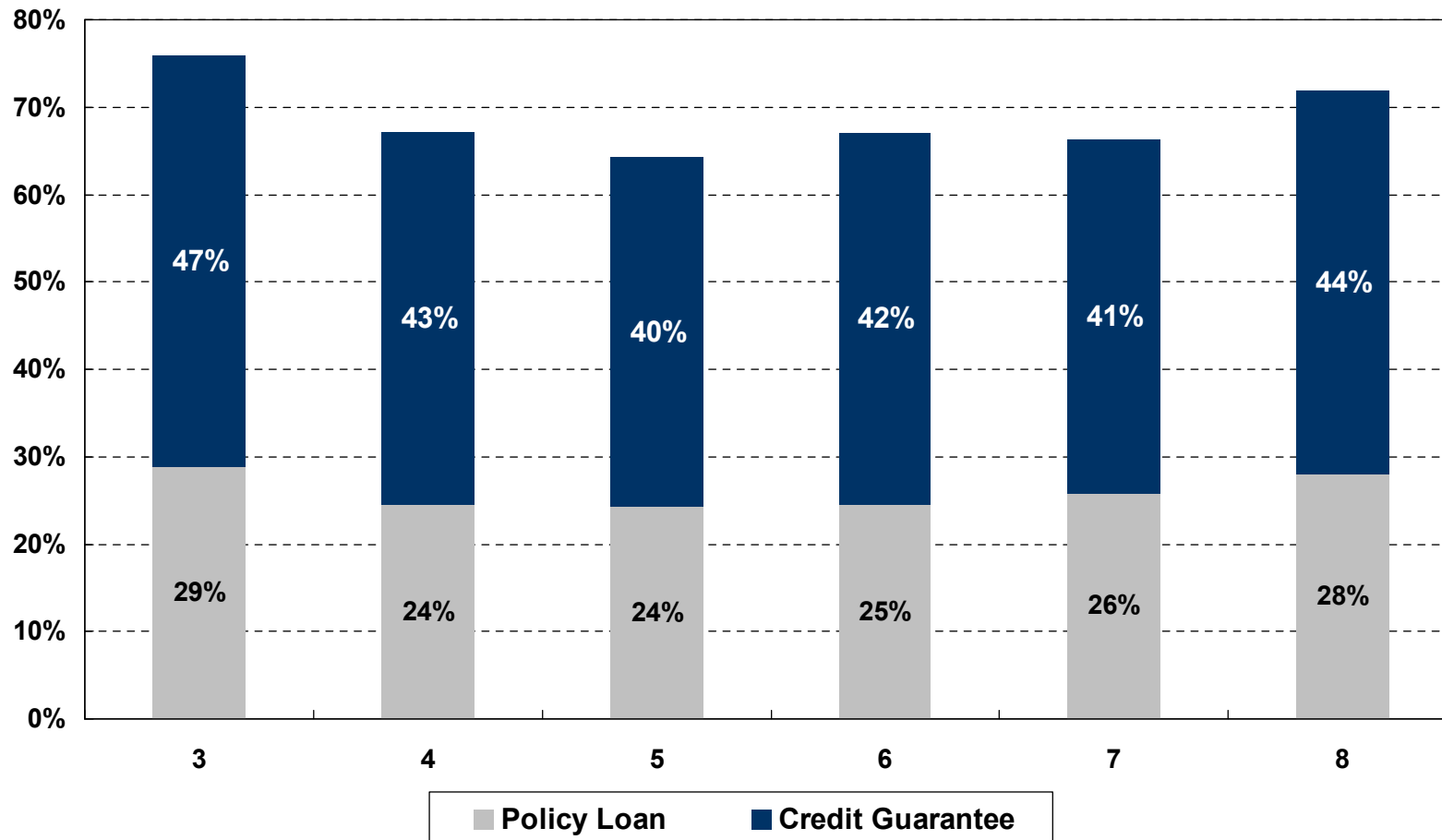
(unit: no. of firms)

	Establishment year				Total
	1995	1996	1997	1998	
Externally audited SMEs	112 (15.5%)	167 (23.2%)	209 (29.0%)	233 (32.3%)	721 (100.0%)
Non-externally audited SMEs	870 (20.6%)	953 (22.6%)	1,101 (26.1%)	1,299 (30.8%)	4,223 (100.0%)
<b>Total</b>	<b>982</b>	<b>1,120</b>	<b>1,310</b>	<b>1,532</b>	<b>4,944</b>

# Public Financial Assistances to Sample SMEs

Years after establishment		3	4	5	6	7	8
Total sample firms (A)		4,944	4,944	4,944	3,412	2,102	982
PL borrowing firms (B)		1,037	1,319	1,490	1,115	711	337
Policy Loan	PL firm ratio (B/A)	21.0%	26.7%	30.1%	32.7%	33.8%	34.3%
Average PL amount per the borrowed		578.8	597.7	673.5	749.5	818.5	839.9
CG using firms (C)		3,491	3,543	3,545	2,320	1,297	549
Credit Guarantee	CG firm ratio (C/A)	70.6%	71.7%	71.7%	68.0%	61.7%	55.9%
Average CG amount per the guaranteed		643.4	754.1	867.9	981.7	1,011.0	1,075.7
VC invested firms (D)		187	241	283	186	93	31
Venture Capital Investment	VC firm ratio (D/A)	3.8%	4.9%	5.7%	5.5%	4.4%	3.2%
Average VC amount per the invested		1,398.3	1,307.6	1,304.3	1,266.2	1,150.5	1,424.7

# Policy Loan and Credit Guarantee



# Summary of Results

	Sales turnover	Operating profits	Economic value added
Credit Guarantee	- → -	▲ → ▲	- → -
Policy Lending	+ → +	▲ → ▲	▲ → +
Venture Capital	▲ → +	▲ → +	▲ → +

Note: + Positive effect; ▲ Statistically insignificant effect; - Negative effect.

# Policy Implications from the Results

- ❖ **Venture capital investment performs best in various measures**
  - Need to assist equity type of financial assistances to SMEs
  - Should take optimal size of VC investments into account
- ❖ **Policy loans have served policy objectives**
  - Policy loans contributed to generate economic value-added
  - But the loans should be reallocated toward R&D and venture firms
- ❖ **Should reform credit guarantee scheme**
  - Due to lack of thorough credit examinations, performance worst
  - More specific targeting for technology and innovative SMEs

# CG Reform Proposal

## • Directions for Reforms on Credit Guarantee Scheme

- Emphasis on cost-benefit analysis away from quantity expansion
- Assisting innovation-oriented firms and start-ups
- Expediting SME restructuring
- Market-friendly approach adopted

## • Action Programs

- Introducing “Guarantee Graduation” and reducing CG ceiling
- Raising guarantee premium & Lowering guarantee coverage ratio
- BSC for credit guarantee based on empirical analyses
- Extending guarantee maturity and enforcing installment payments

# Roles of CG after Global Crisis

## • Gradual downsizing occurs

- The amount of CG reduced in absolute level
- CG graduation program activated

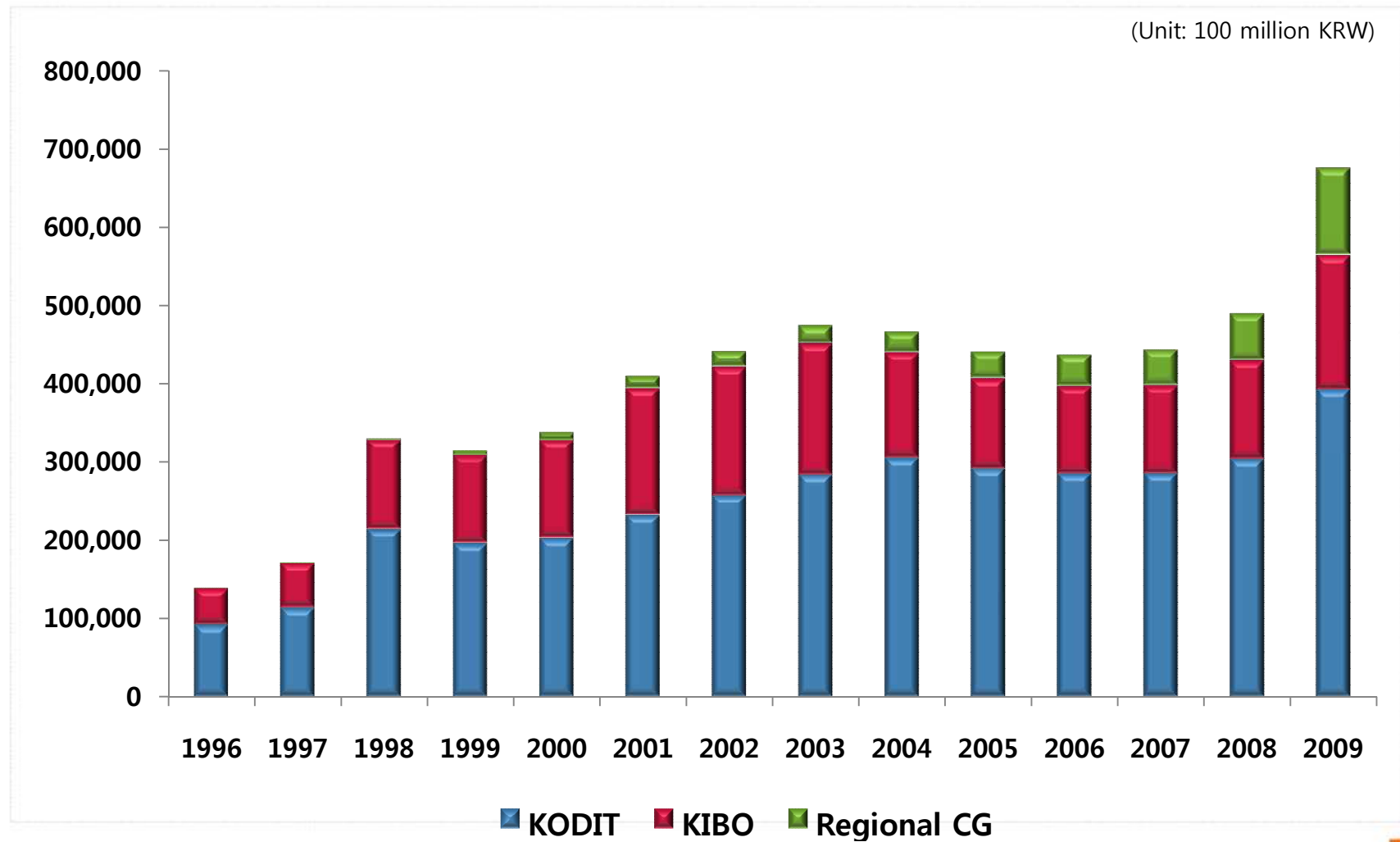
## • After the 2008 crisis CG has become explosive

- Public financial substitutes private financing to overcome crisis
- Quite successful in alleviating SME financing difficulties

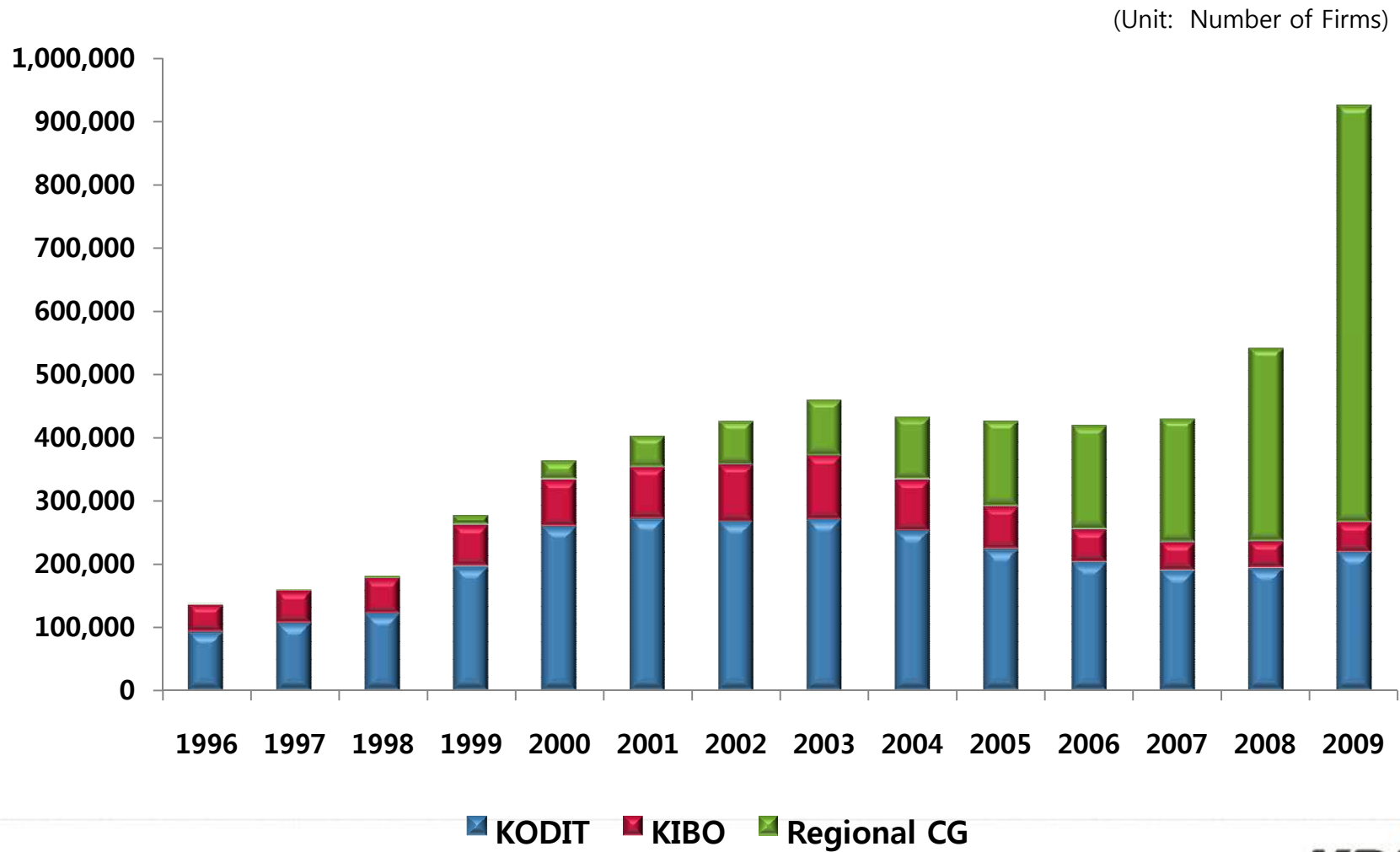
## • Tough restructuring is waiting

- Supply is much easier than stop
- CG restructuring asks for SME restructuring: Is it politically viable?

# CG Amount in Korea



# Number of CG SMEs in Korea



Part-05 | **Concluding Remarks**



# Lessons from Korean Experiences

- ❖ **CG is effective and powerful in economic development**
  - CG promotes SME financing at the underdeveloped stage
  - CG plays a role of economic stabilizer and social service provider
- ❖ **CG is costly**
  - Publicly sponsored CG asks for huge management costs
  - CG may distort efficient allocation over a certain threshold
- ❖ **CG scheme should be flexible**
  - One size does not fit for all
  - The necessities for CG change over social and economic situation