Sustainable Growth of Asia and Development of Financial Market

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PACIFIC OCEAN
Myanmar
Lao PDR
Thailand
Viet Nam
Cambodia
Philippines
Brunei
Darussalam
M a l a y s i a
Singapore
Indonesia
INDIAN OCEAN

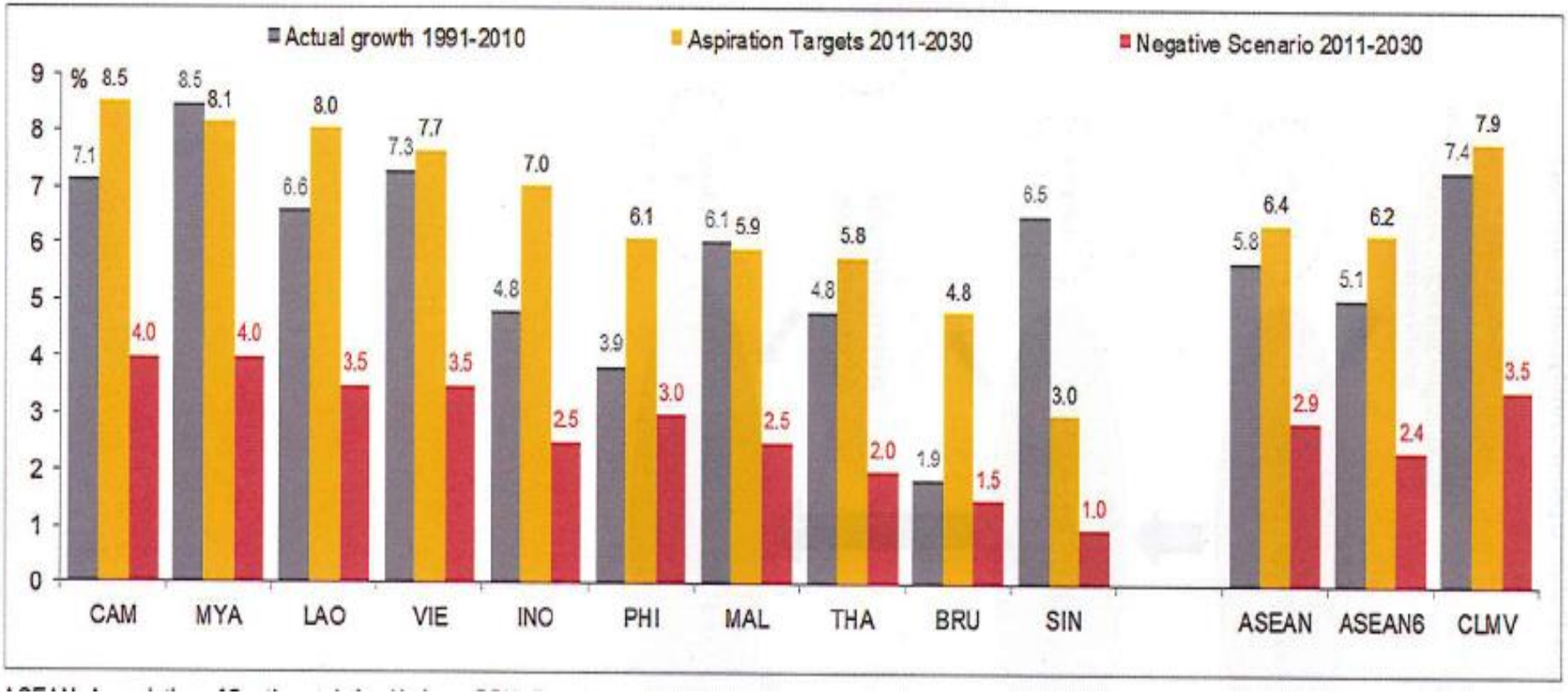
ASEAN 2030

Asian Development Bank Institute (ADBI) 2014

Toward a Borderless Economic Community

Figure 2.2. ASEAN GDP Growth to 2030: Aspirations vs. Negative Scenario

Actual 1991-2010 growth; aspiration targets and negative scenario for 2011-2030



Conditions for Sustainable Growth

1 Political stability and Macroeconomic Stability
Sound monetaryfiscal policy and exchange rate

2 Support equitable growth, Income equality
Housing Policy, Inheritance tax
Savings are kept in abroad

3 Central–Local government relations and
Fiscal sustainability. Local government bond

4 Promote competitiveness and innovation
Financing for venture business and SMEs

5 Protect the environment
and stable energy supply

6 Develop financial market

Financial Inclusion, financial regulation and financial education (Access to finance)

7 Education and Healthcare ***public school***

8 Enhance seamless connectivity

Infrastructure investment, free trade

9 Improve governance issues, transparency

Characteristics of Asian Financial Market

1, Bank-dominated financial system

2, small share of bond markets

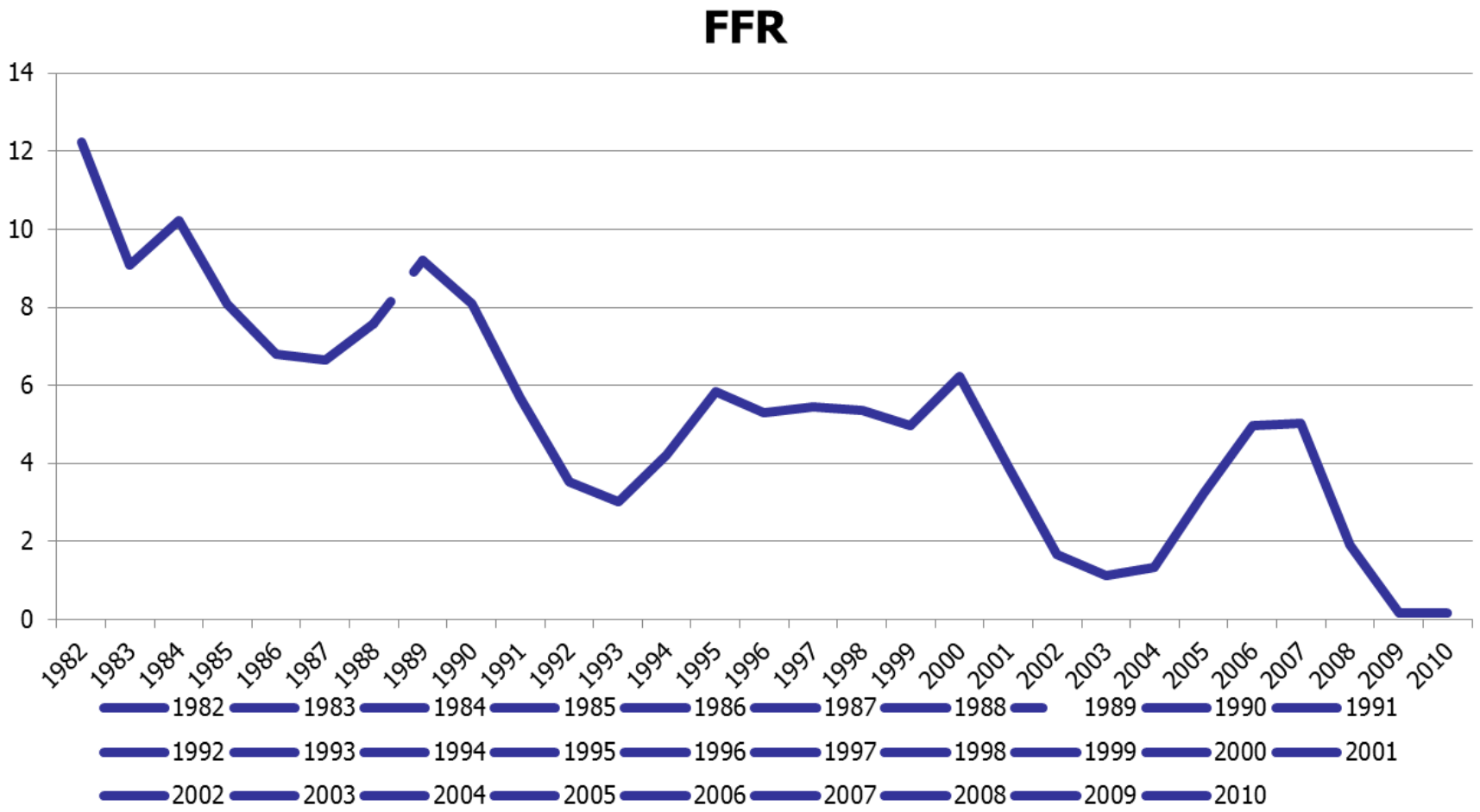
Needs for long term financing

3, Lack of long term investors such as pension funds and insurance companies

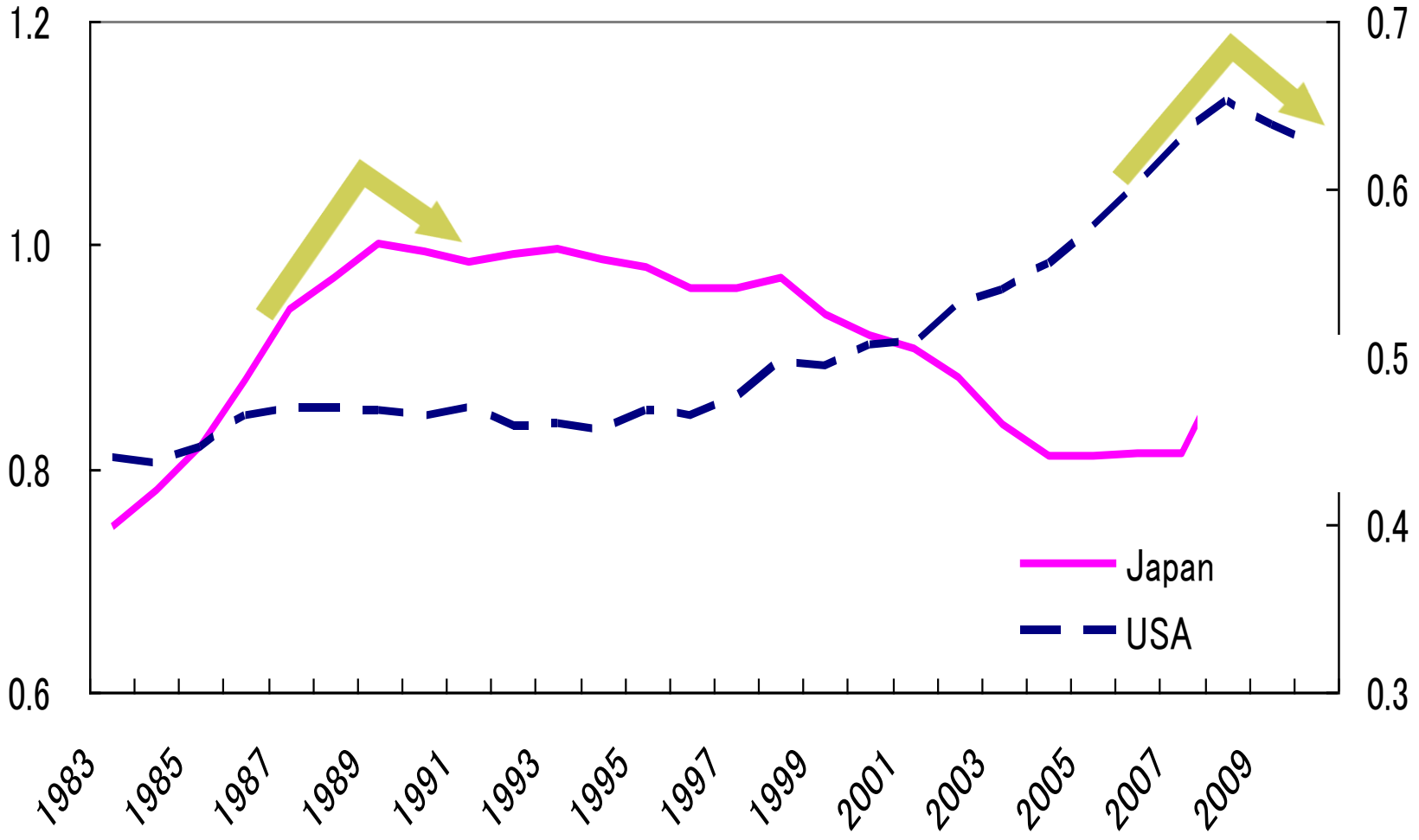
4, High percentage of SME

5, Large share or Micro Credit (Finance companies), Lack of venture capital

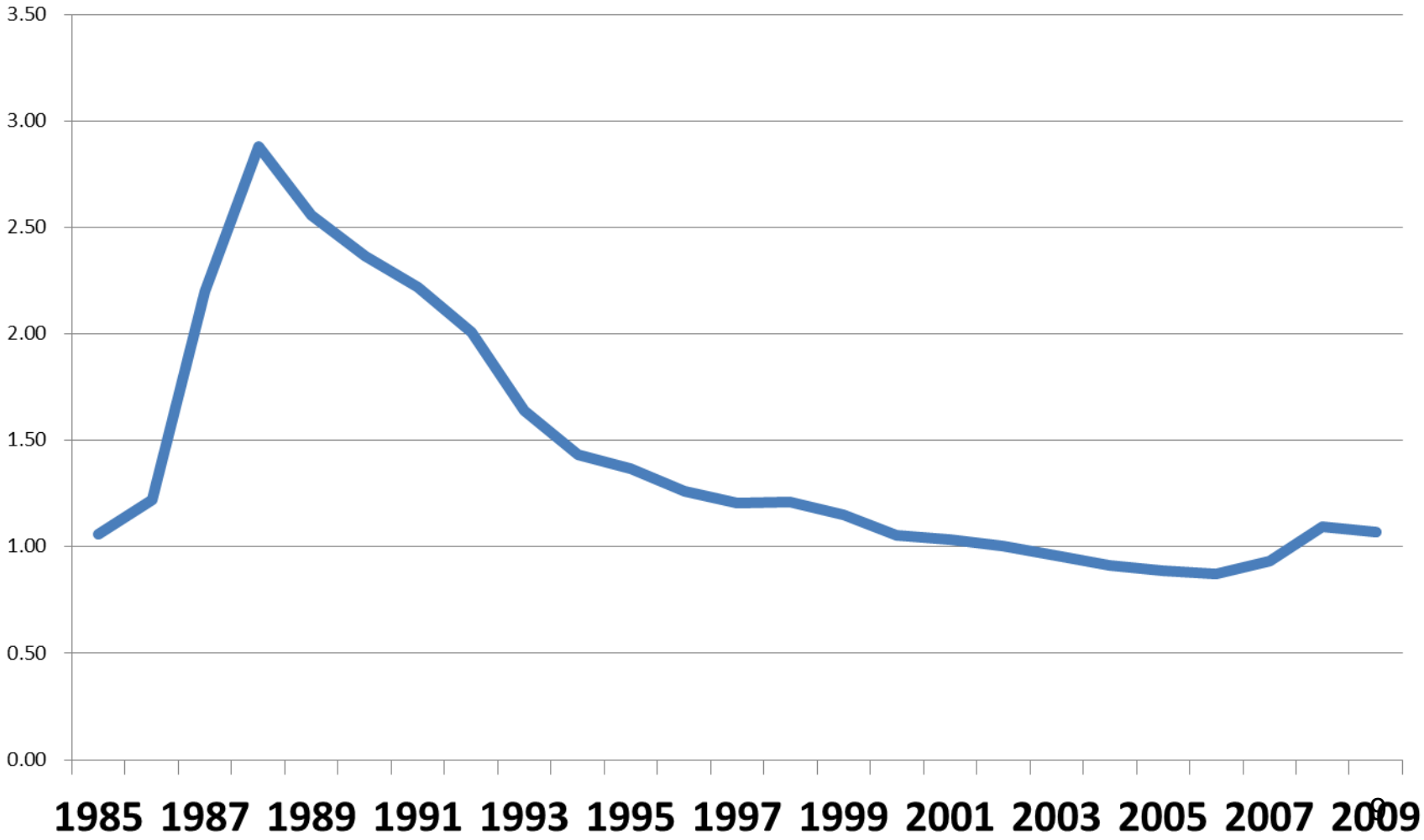
Bubble Indicators, Interest Rate (USA) Monetary Policy



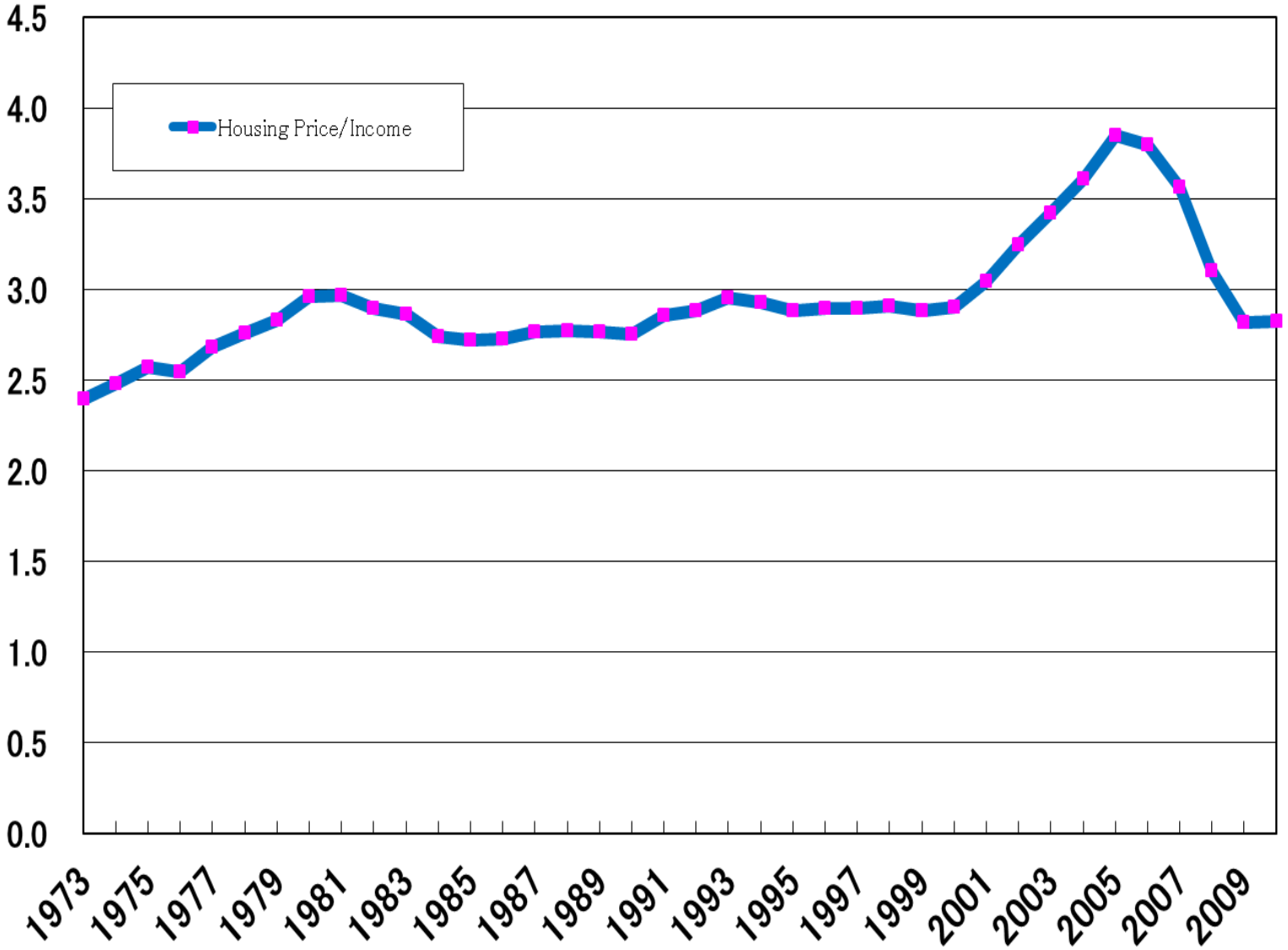
「Bank Credit / GDP」Ratio



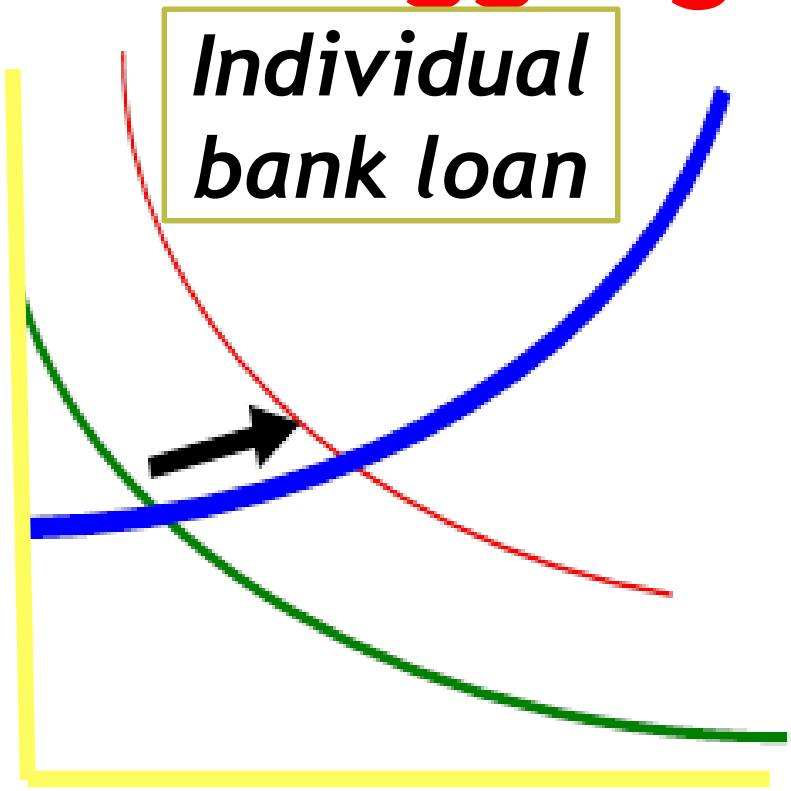
Japanese Housing Price/National Income

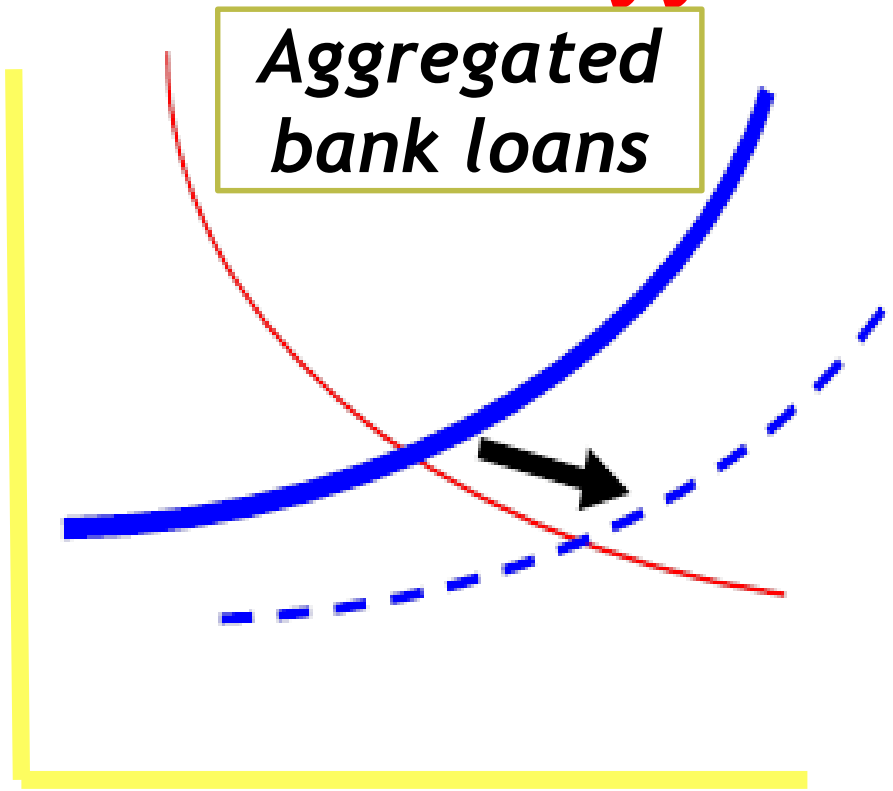


US Housing Price/Income



Micro behavior of bank and aggregated macro effect





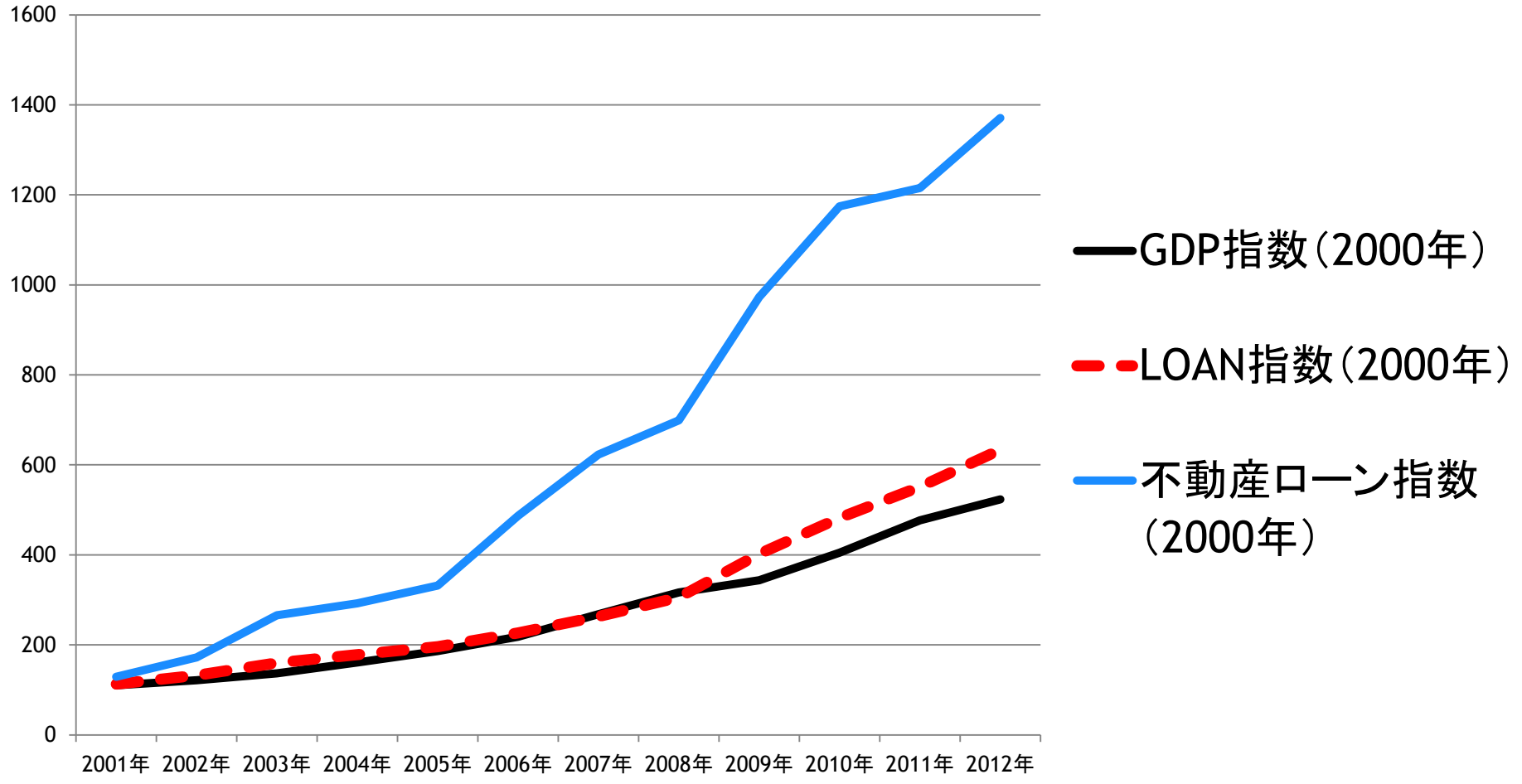
Japan's Bubble (1986 – 1990)

U.S. Bubble (2002 – 2006)

Japan's post bubble (1991 – 2001)

U.S. post bubble (2007 – 2010)

CHINA GDP, Bank Loan, and Real estate Loan



China & World Economy

China & World Economy / 36–55, Vol. 22, No. 3, 2014

Dynamic Transition of Exchange Rate Regime in China

*Naoyuki Yoshino, Sahoko Kaji, Tamon Asonuma**

1 Exchange Rate in Asian Region

Dollar Peg → Imbalance in Current Account

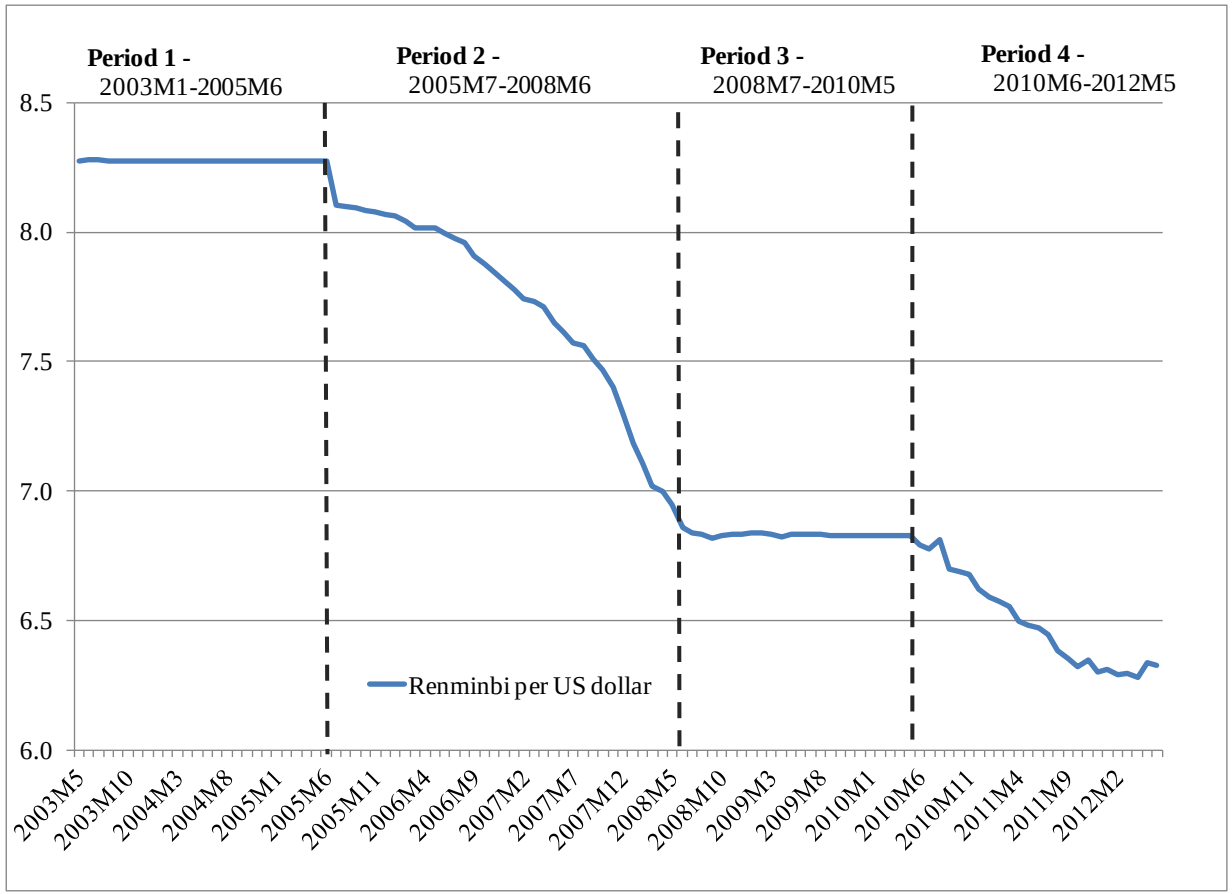
Stability of Employment

Central Bank		***Private banks***	
US $ *Euro*	***RMB***	***Reserves*** ***Loans***	***Deposits***

2, Bubble

Bank loans to real estate and housing

Chinese Exchange Rate



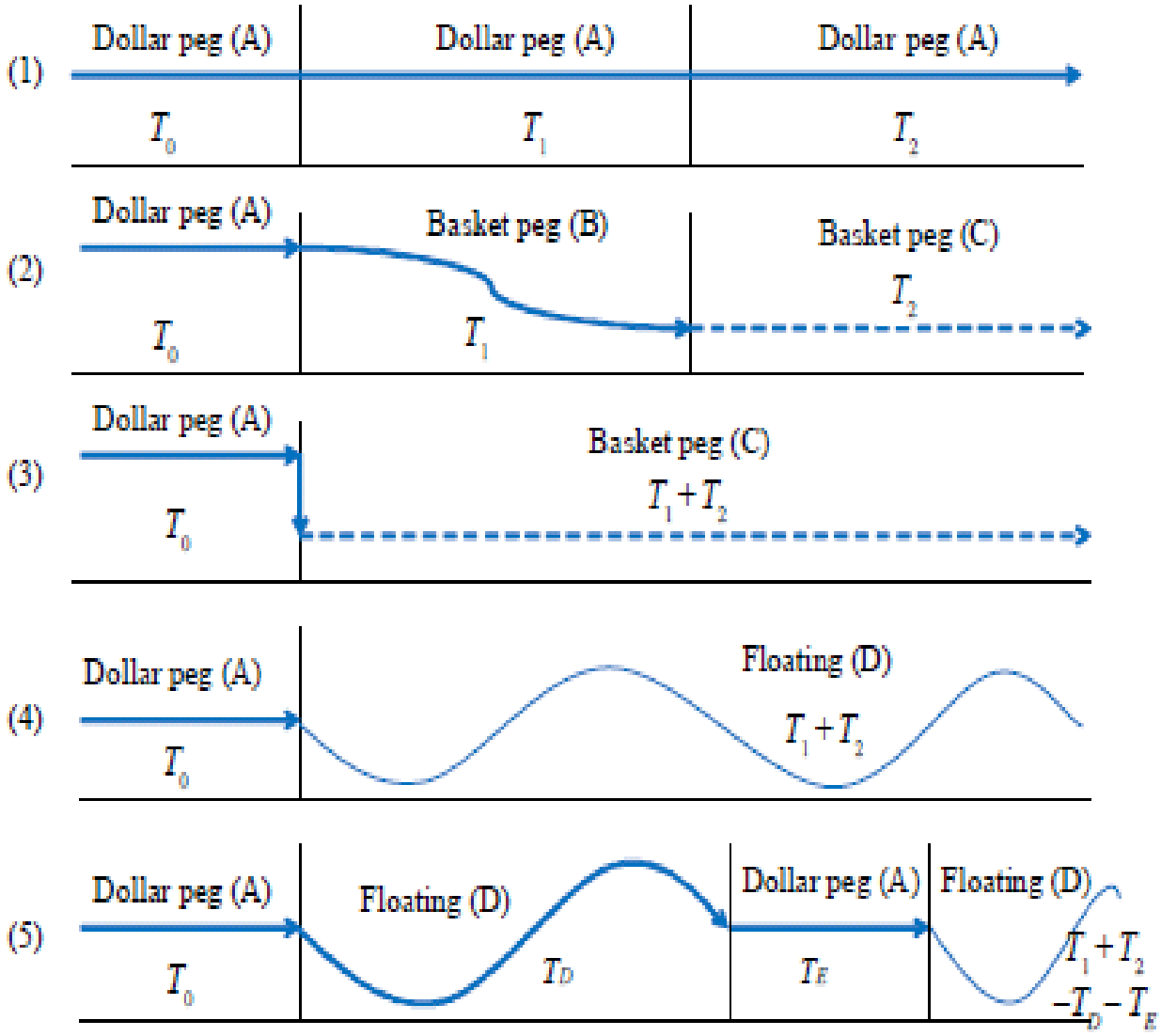
Sources: IMF IFS.

$$CNY_t = (b_{0,1} + \sum_{i=\{2,3,4\}} b_{0,1} D_i) + \sum_{j \in C} (b_{j,1} + \sum_{i=\{2,3,4\}} b_{j,i} D_i) X_{j,t} + u_t, \qquad (1)$$

Table 1. Estimates of Weights on the US Dollar Rate

Sample period	Period 1 7 May 2003– 22 July 2005	Period 2 25 July 2005– 30 June 2008	Period 3 1 July 2008– 28 May 2010	Period 4 1 June 2010– 1 June 2012
Estimated weights on the US dollar rate	0.999** (0.001)	0.842** (0.036)	0.918** (0.017)	0.819** (0.039)

Figure 3. Five Policies to Follow in the Transition to Stable Regimes



Quantitative analysis (cont.)

- Cumulative losses : $T_0=0$, $T_1=18$, & $T_2=18$

$$L(T_1, T_2) \equiv \sum_{t=1}^{T_0+T_1+T_2} \beta^{t-1}(y_t - \bar{y}')^2$$

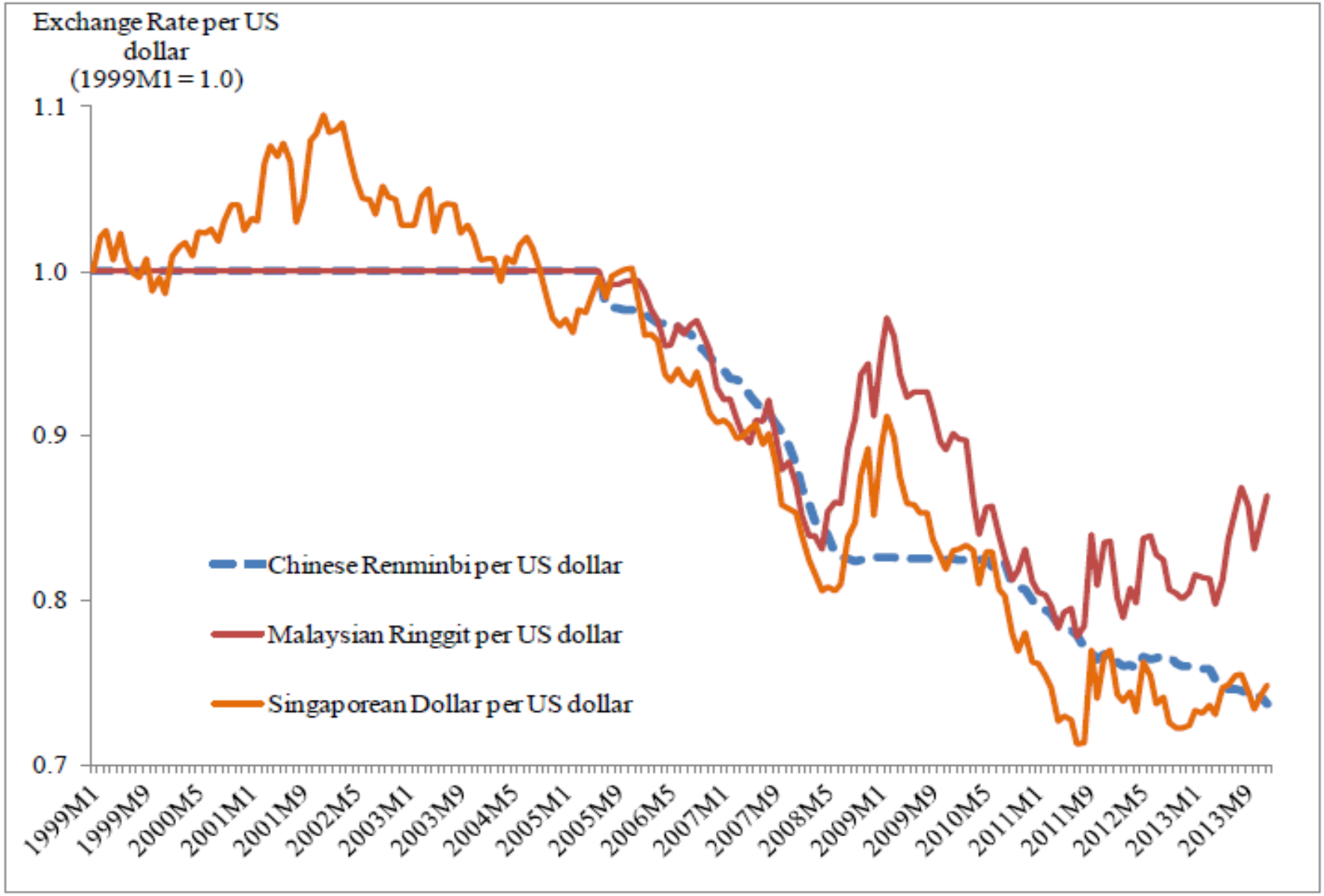
Table 8. Cumulative Losses and Optimal Values of Instruments

Stable regime	Policy (1) Dollar peg	Policy (2) Basket peg	Policy (3) Basket peg	Policy (4) Floating	Policy (5)[b] Managed floating
Adjustment	—	Gradual	Sudden	Sudden	Sudden
Instrument value	$i^* = 4.34$	$v^* = 0.58$	$v^{**} = 0.68$	$m^* = 0.016$	$m^{**} = 0.017$
Cumulative loss (value)	17.04	1.80	1.91	2.67	2.31
Cumulative loss (percent of $(\bar{y}^2)^*$)[a]	23.4	2.4	2.6	3.7	3.2

Source: Authors' calculations

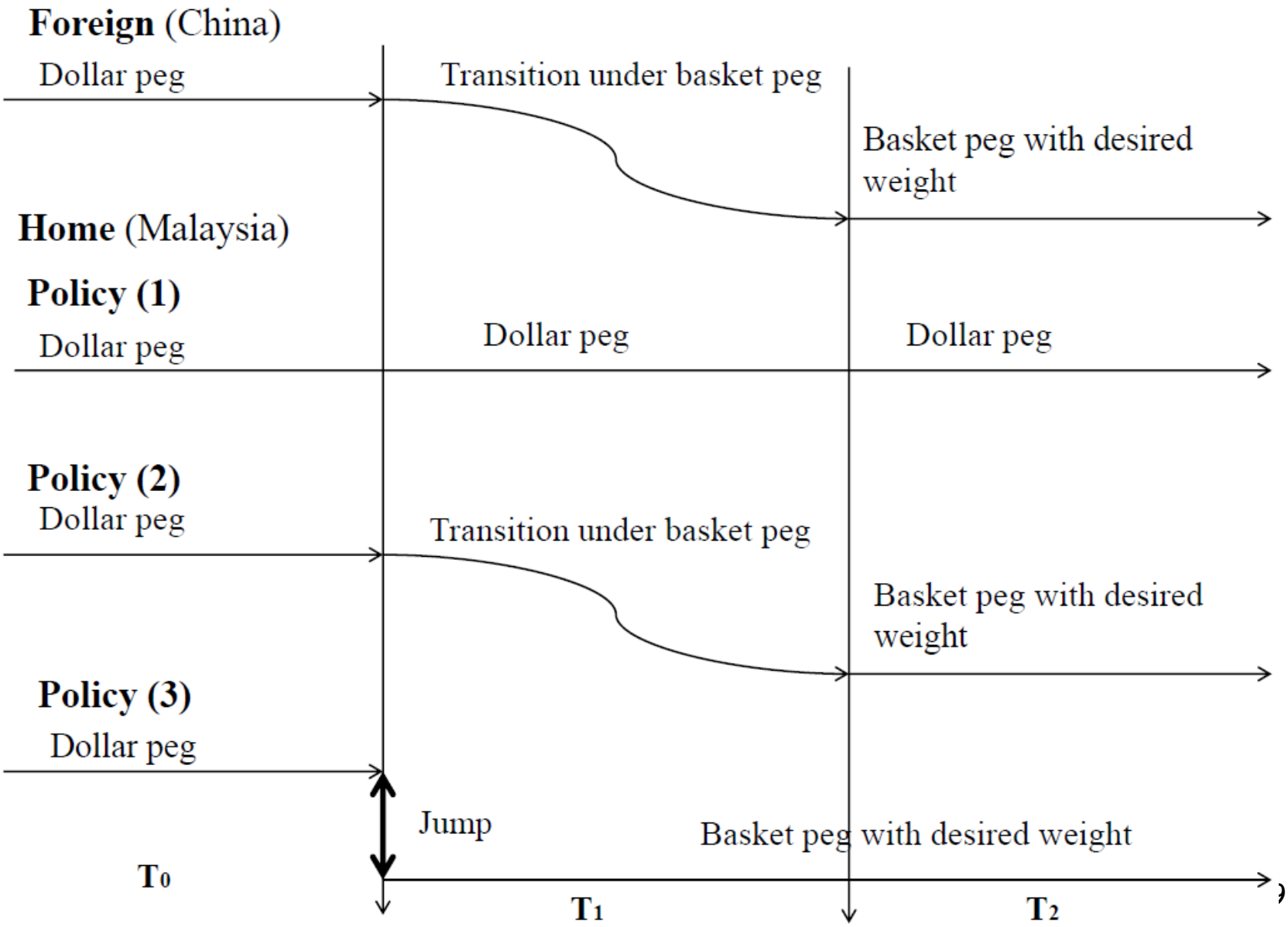
Note: [a]We calculate the value of $\bar{y}^2$ shown in Section IV and obtain $\bar{y}^2 = 72.8$. [b]For $T = 7$, the cumulative loss is 3.54 ($m^{**} = 0.017$).

Motivation (cont.)



Sources: IMF IFS.

Transition Policies



Quantitative analysis (cont.)

(1) Malaysia

	Policy (1)	Policy (2)	Policy (3)	Policy (4)	Policy (5)	Policy (6)
Stable regime	Dollar peg	Basket peg	Basket peg	Basket peg	Floating	Floating
Adjustment	-	Gradual	Sudden	Sudden	Sudden	Sudden
Basket weight	1.00	0.40	0.54	0.45	-	-
Cumulative loss (%)	17.51	17.35	17.46	17.46	24.31	25.93

Sources: Authors' calculations

(2) Singapore

	Policy (1)	Policy (2)	Policy (3)	Policy (4)	Policy (5)	Policy (6)
Stable regime	Dollar peg	Basket peg	Basket peg	Basket peg	Floating	Floating
Adjustment	-	Gradual	Sudden	Sudden	Sudden	Sudden
Basket weight	1.00	0.67	0.9	0.85	-	-
Cumulative loss (%)	45.60	45.56	45.64	45.61	60.51	64.18

Sources: Authors' calculations

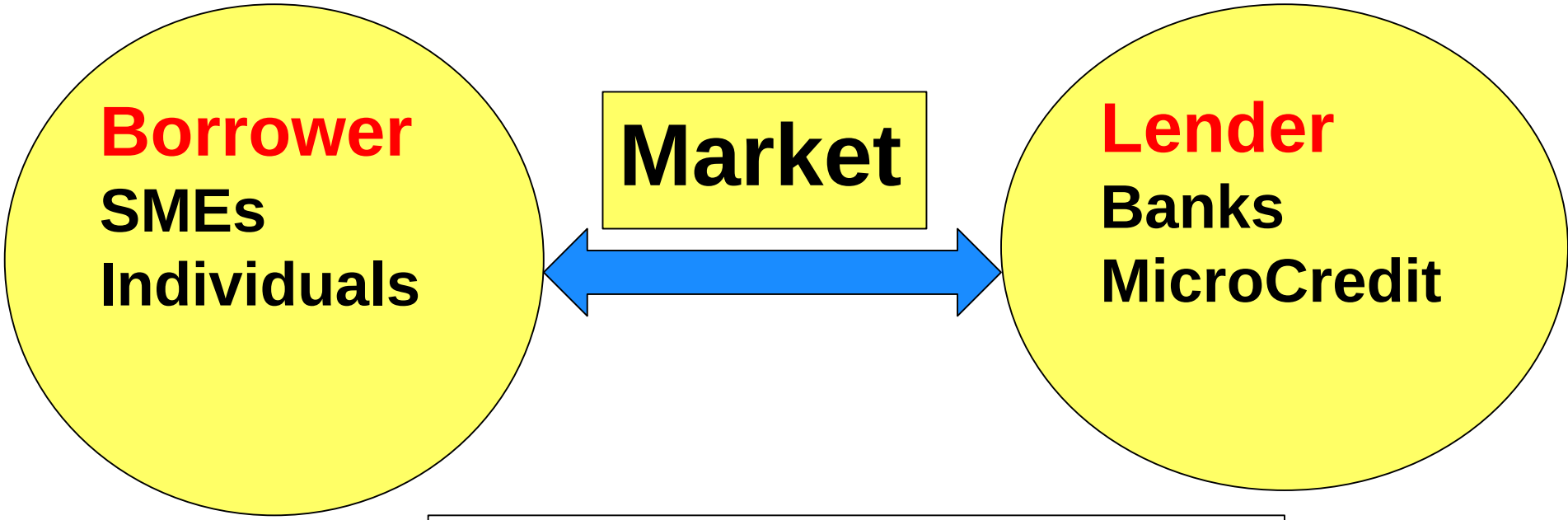
SMEs in Thailand

Type of Enterprise	No. of Enterprises (% of total)	No. of employment (% of total)	GDP Mill. Baht (% of total)
SMEs	2,366,227 (99.6%)	8,900,567 (76.0%)	3,244,974 (38.2%)
Large Enterprise and Others	9,141 (0.4%)	2,810,767 (24.0%)	5,239,226 (61.8%)
Total	2,375,368 (100%)	11,711,334 (100%)	8,484,200 (100.0%)

PRC SME Share

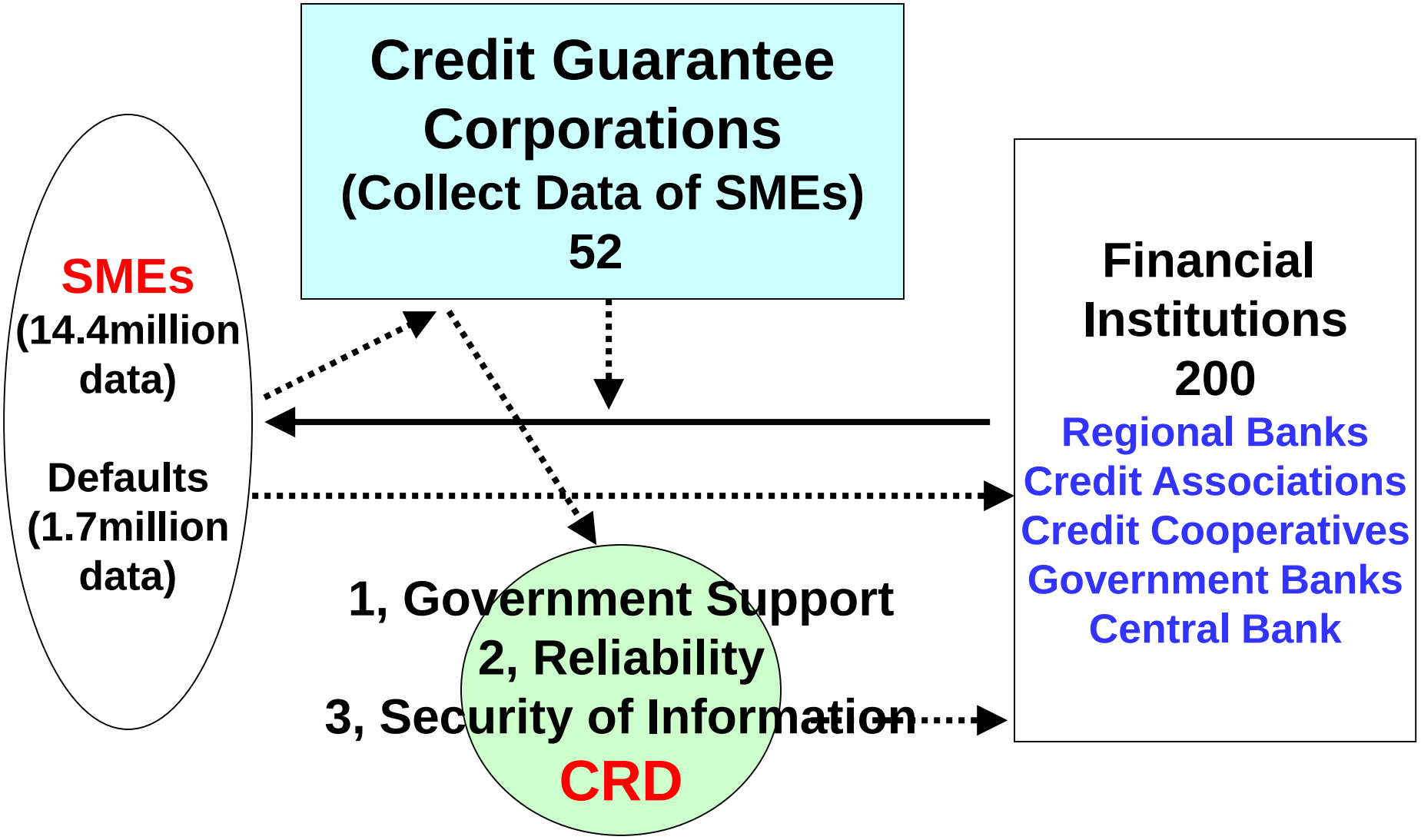
Item	2007	2008	2009	2010	2011*	2012*
Number of SMEs						
SMEs (number)	333,858	422,925	431,110	449,130	316,498	334,321
SMEs to total (%)	99.1	99.3	99.3	99.2	97.2	97.3
Employment by SMEs						
SME employees ('000)	60,521	68,671	67,877	72,369	59,357	...
SMEs to total (%)	76.8	77.1	78.9	75.8	64.7	...
SME Exports						
SME exports (CNY billion)	4,303	4,773	4,152	4,919	4,142	4,423
SMEs to total exports (%)	58.6	57.9	57.6	54.7	41.6	41.5

Borrower, Lender and Market



Information Asymmetry
Especially SME market

SME Data base (CRD Data base)



- **1363 SMEs of one Asian bank examined**
- **11 most significant ratios(variables) selected**

	Symbol	Variables examined	Category
1	STD_Equity	Short Term Debt/Equity (Book Value)	
2	Equity_TD	Equity (Book Value)/Total Liabilities	Leverage
3	TD_Tassets	Liabilities/Total Assets	
4	Cash_Tassets	Cash/Total Assets	
5	WC_Tassets	Working Capital/ Total Assets	Liquidity
6	LIQ_Sales	Cash/Net sales	
7	EBIT_Sales	Ebit/Sales	
8	ROA	Net Income/Total Assets	Profitability
9	Rinc_TA	Retained Earnings/ Total Assets	
10	Ninc_s	Net Income/Sales	
11	EBIT_IE	Ebit/Interest Expenses	Coverage
12	Sales_TA	Sales/Total Assets	
13	AP_Sales	Account Payable/Sales	Activity
14	AR_TD	Account Receivable/Liabilities	

Note: Ebit denotes Earnings Before Interest and Taxes

Principle Component Analysis (PCA)

Table 4. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**3.30**	30.00	30.00	3.30	30.00	30.00
2	**2.19**	19.90	49.90	2.19	19.90	49.88
3	**1.25**	11.38	61.25	1.25	11.38	61.26
4	**1.08**	9.78	71.03	1.08	9.78	71.03
5	0.94	8.56	79.60			
6	0.75	6.79	86.37			
7	0.56	5.09	91.47			
8	0.48	4.36	95.82			
9	0.32	2.87	98.69			
10	0.13	1.14	99.84			
11	0.09	0.17	100.00			

Note: Extraction Method: Principal Component Analysis.
When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

4 Significant Components

	Component			
	Z1	Z2	Z3	Z4
Equity_TD	0.009	0.068	0.113	0.705
TD_Tassets	-0.032	-0.878	0.069	-0.034
Cash_Tassets	-0.034	-0.061	0.811	0.098
WC_Tassets	-0.05	0.762	0.044	0.179
LIQ_Sales	-0.937	0.021	0.083	0.009
EBIT_Sales	0.962	0.008	0.024	-0.004
Rinc_TA	0.014	0.877	0.015	-0.178
Ninc_s	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_TD	0.009	-0.041	-0.104	0.725

Components Correlation Matrix

Component	1	2	3	4
1	1	0.037	-0.031	-0.005
2	0.037	1	0.106	0.102
3	-0.031	0.106	1	0.033
4	-0.005	0.102	0.033	1

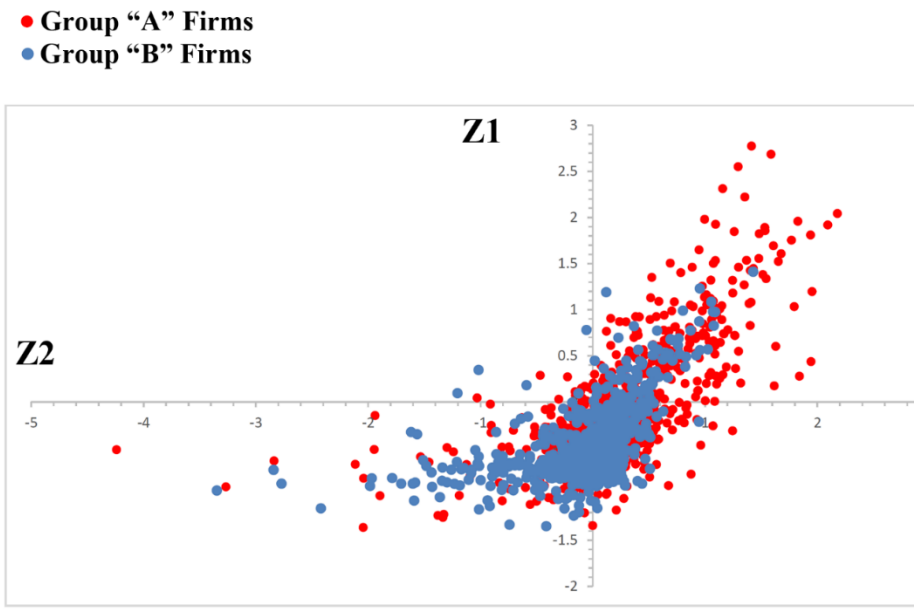
Credit Rating of SMEs by Use of Asian Data

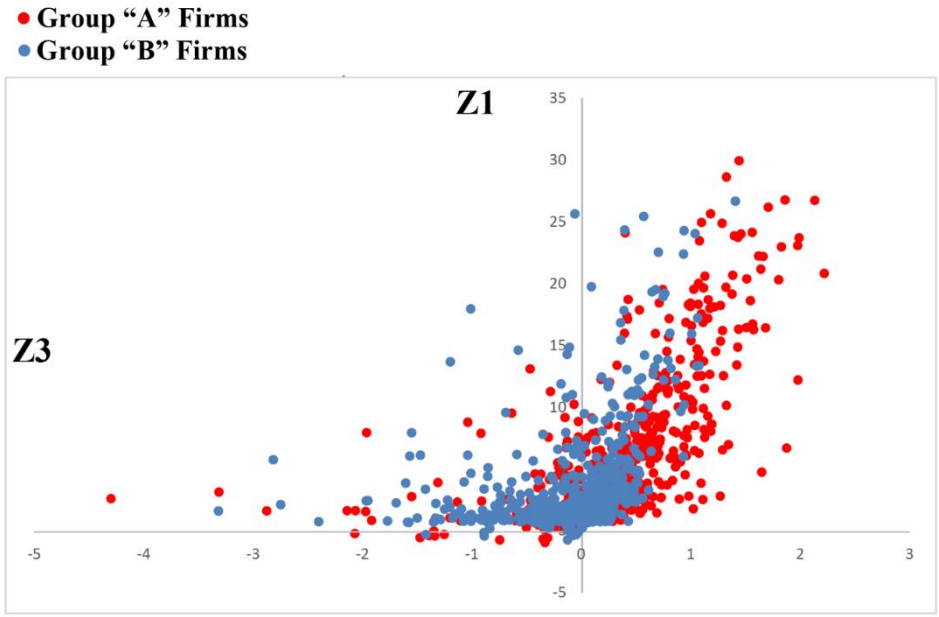
(i) Sales

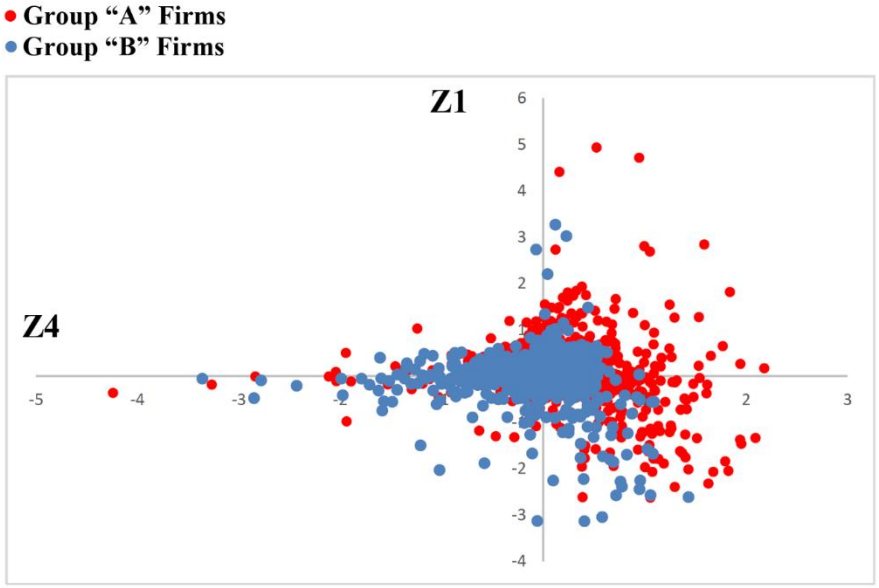
(ii) Assets

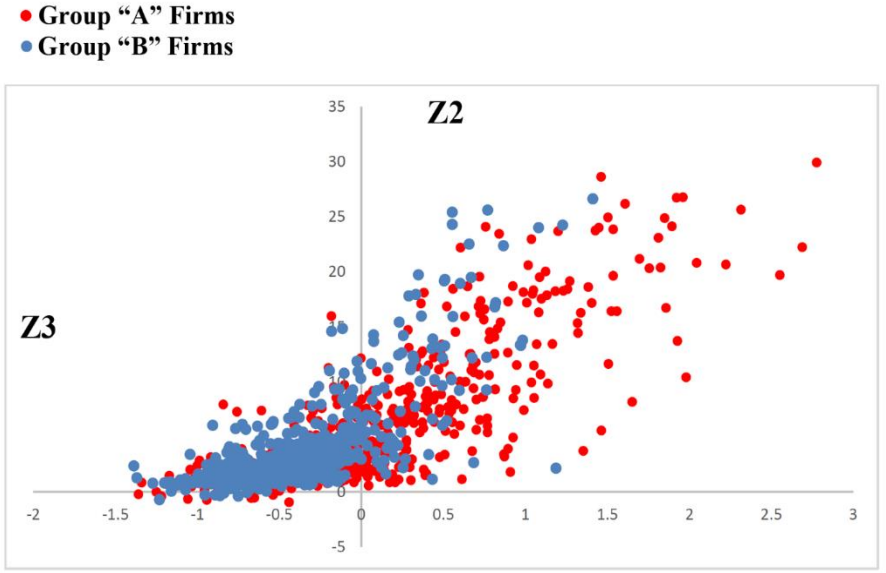
(iii) Liquidity (Cash)

(iv) Total Debt

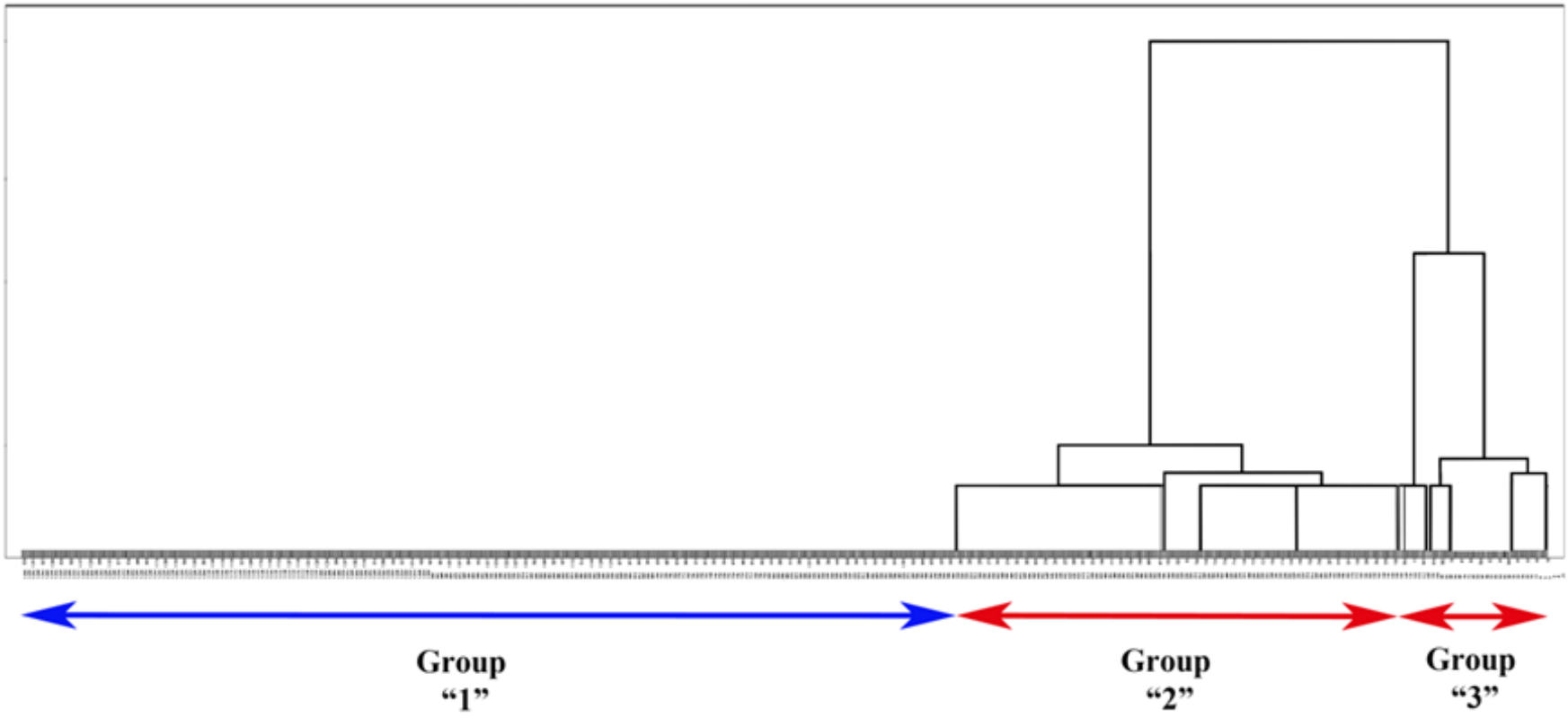




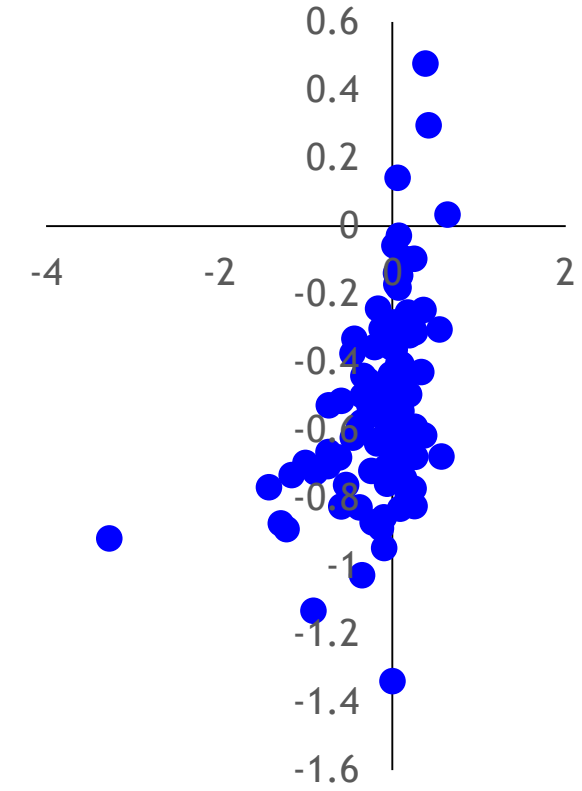




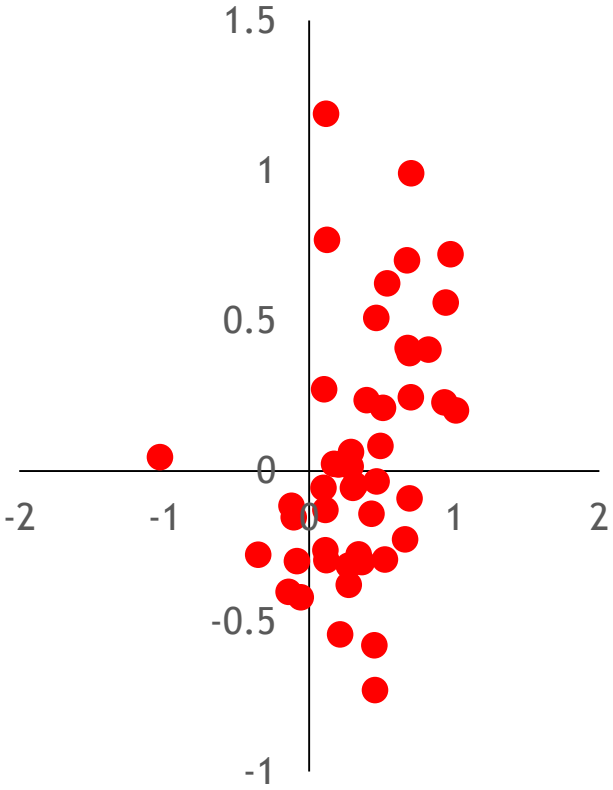
Note: Number of bankrupted firms in this plot was 707 and number of healthy firms was 657, totally 1364. 128 firms out of 1492 firms of our survey omitted in developing this plot because they were so much out-layered graphically.


Group
"1"
Group
"2"
Group
"3"

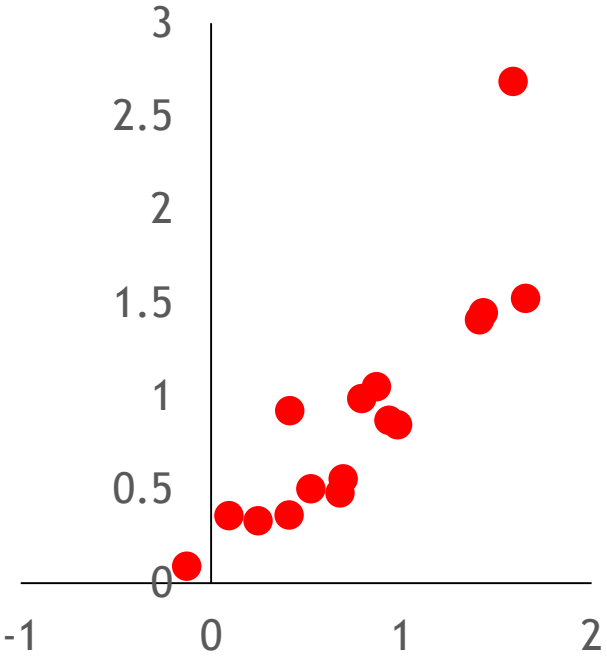
Z1-Z2 Group B



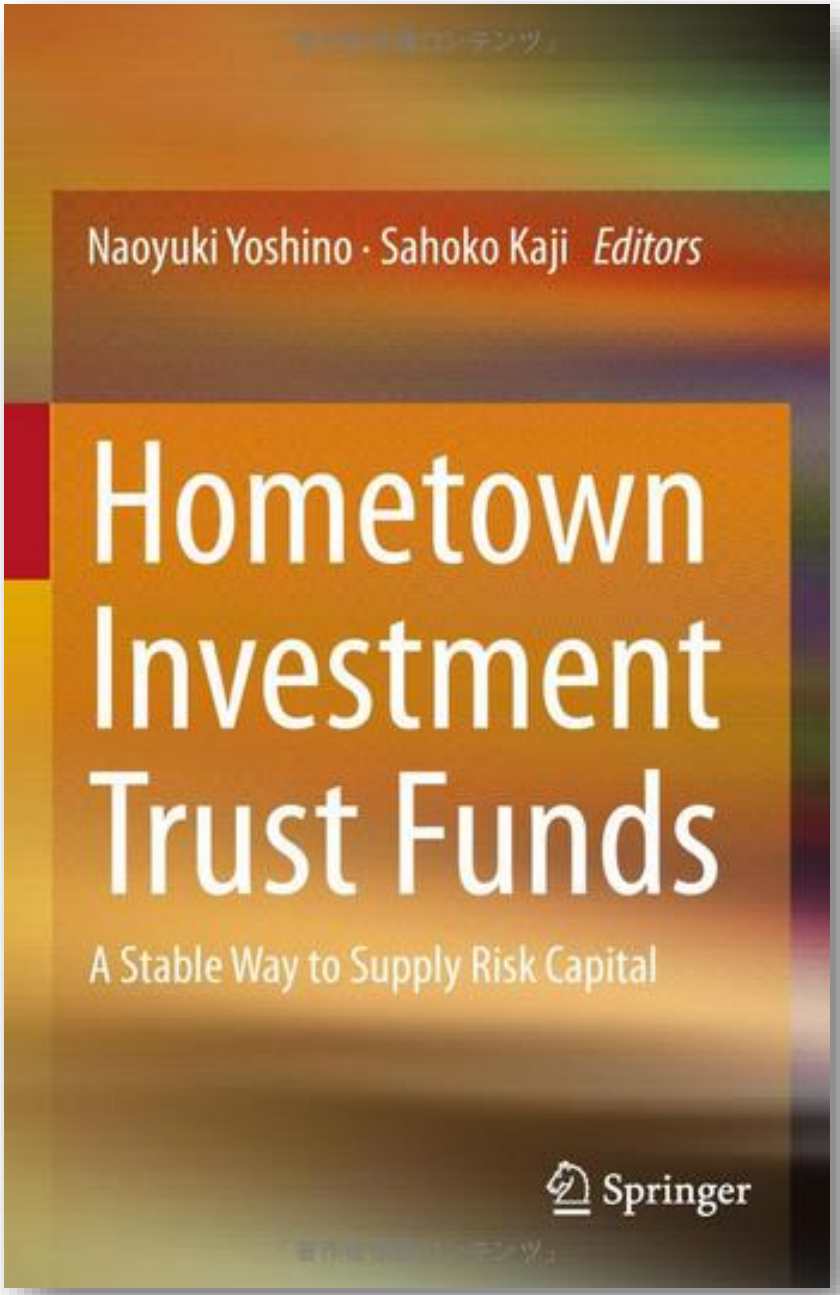
Z1-Z2 Group A-1



Z1-Z2 Group A-2



Healthier Group of SMEs



Home town Investment Trust Funds

A Stable Way to Supply Risk Capital (i.e. knowledge base companies)

Naoyuki YOSHINO
Sahoko KAJI

Examples of Trust Funds by Internet in Japan; E-fund

1, Solar Power Panel

2, Japanese Sake (=Japanese wine) producers' fund

3, Forest trust fund

4, Music trust fund

5, Wind Power Generator

6, Green Finance

Donation and Investment to community

Agricultural Funds

Beans and Wine

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IRAN


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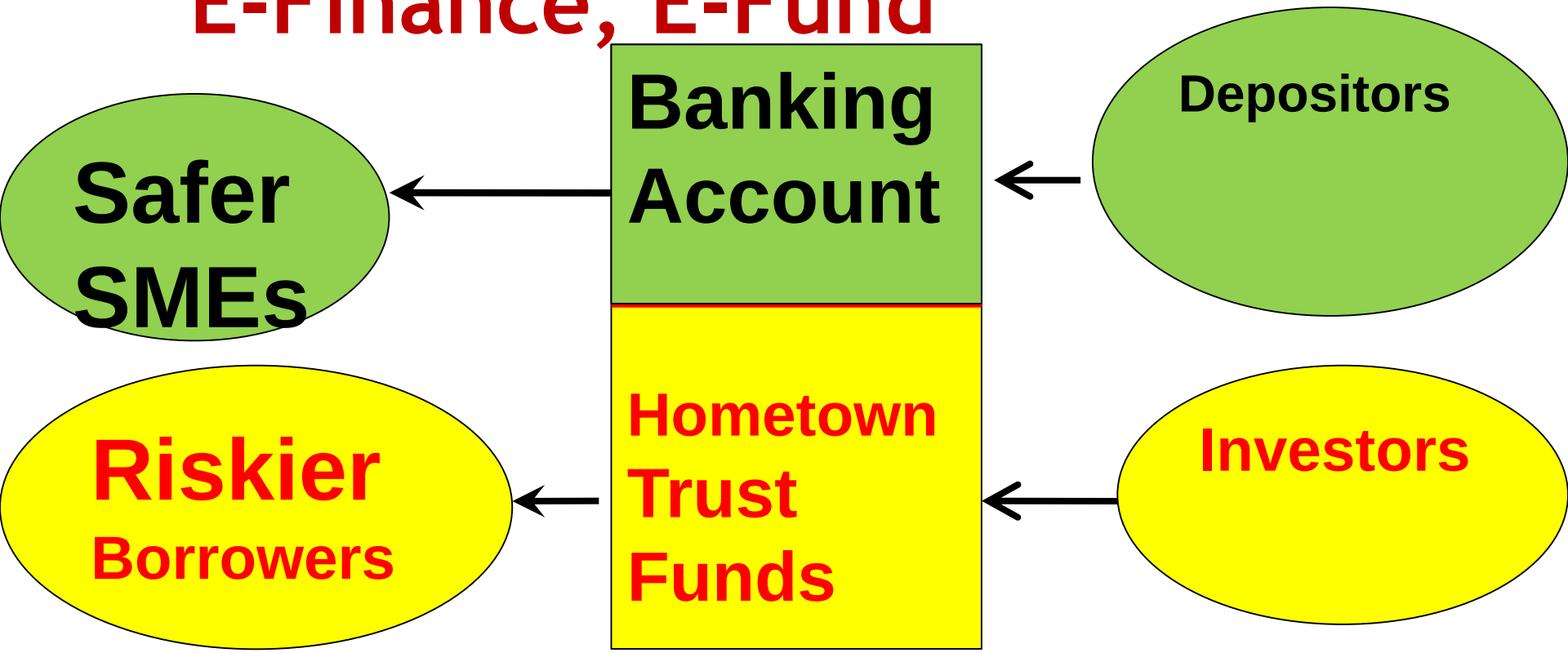
Bank based SME financing and Regional financing to Riskier Borrowers

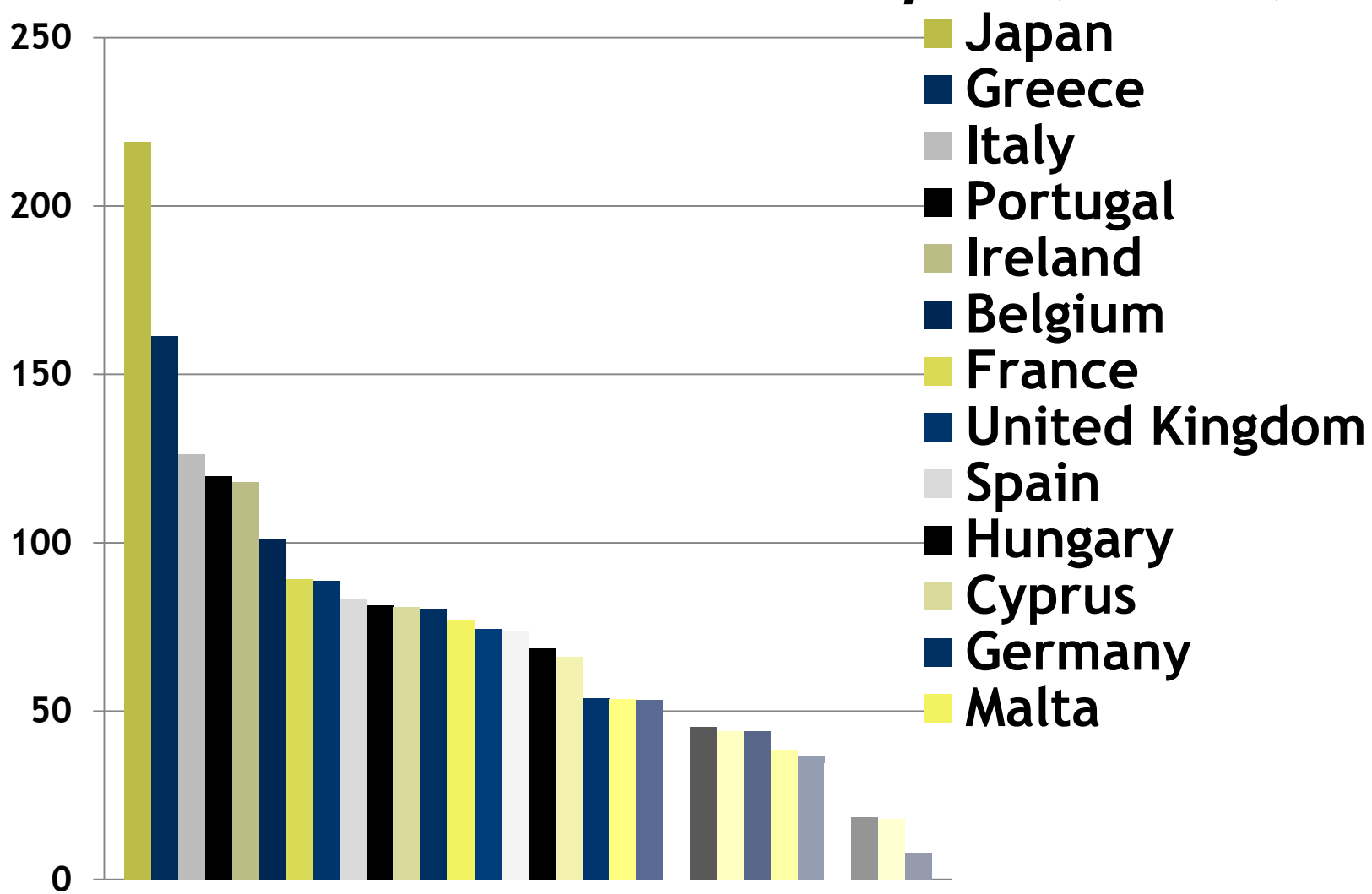
1, Bank Loans to relatively safer borrower

2, Hometown Investment Trust Funds/

E-Finance, E-Fund

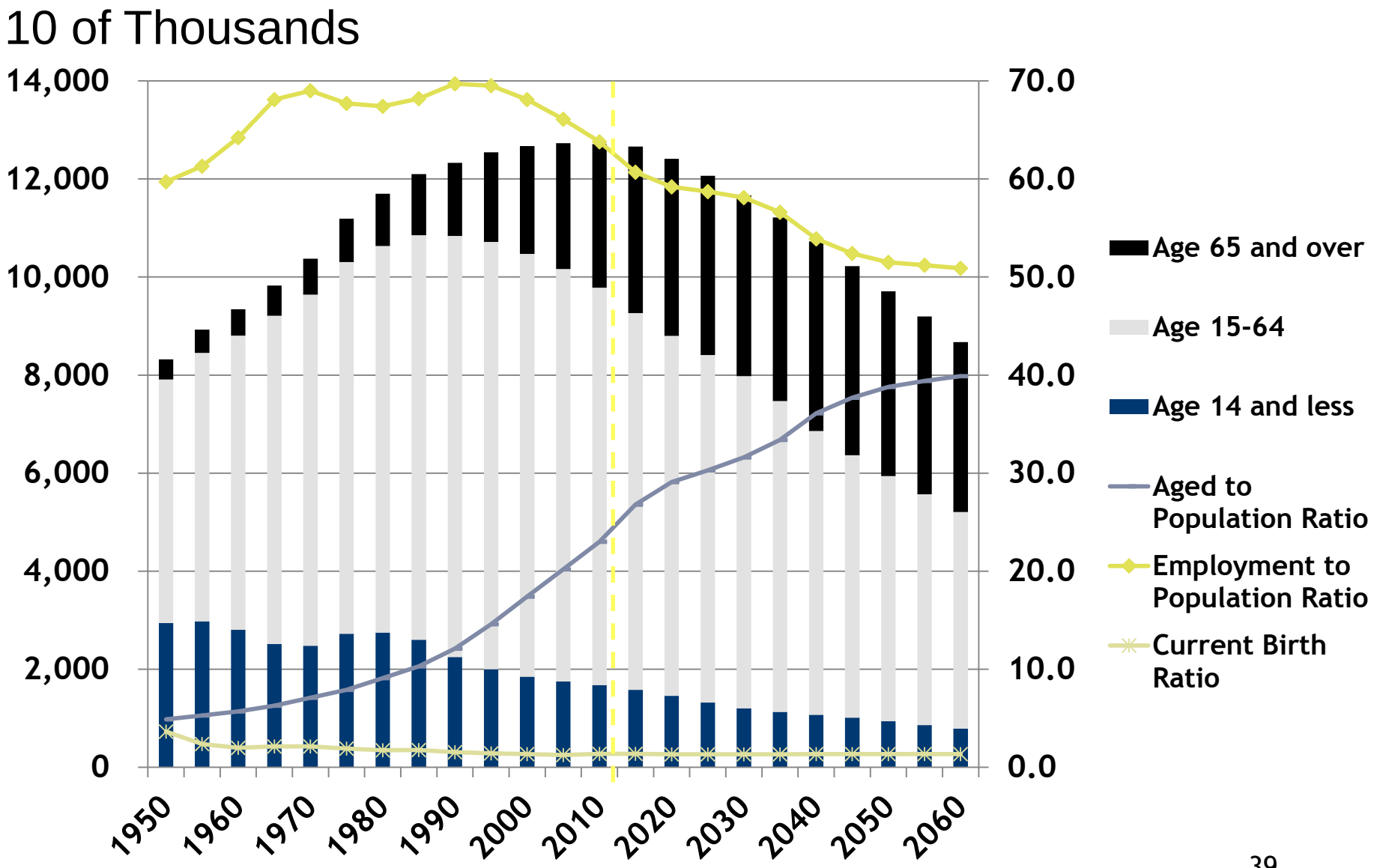


Gross Debt/GDP ratio, 2012
Japan, USA, EU



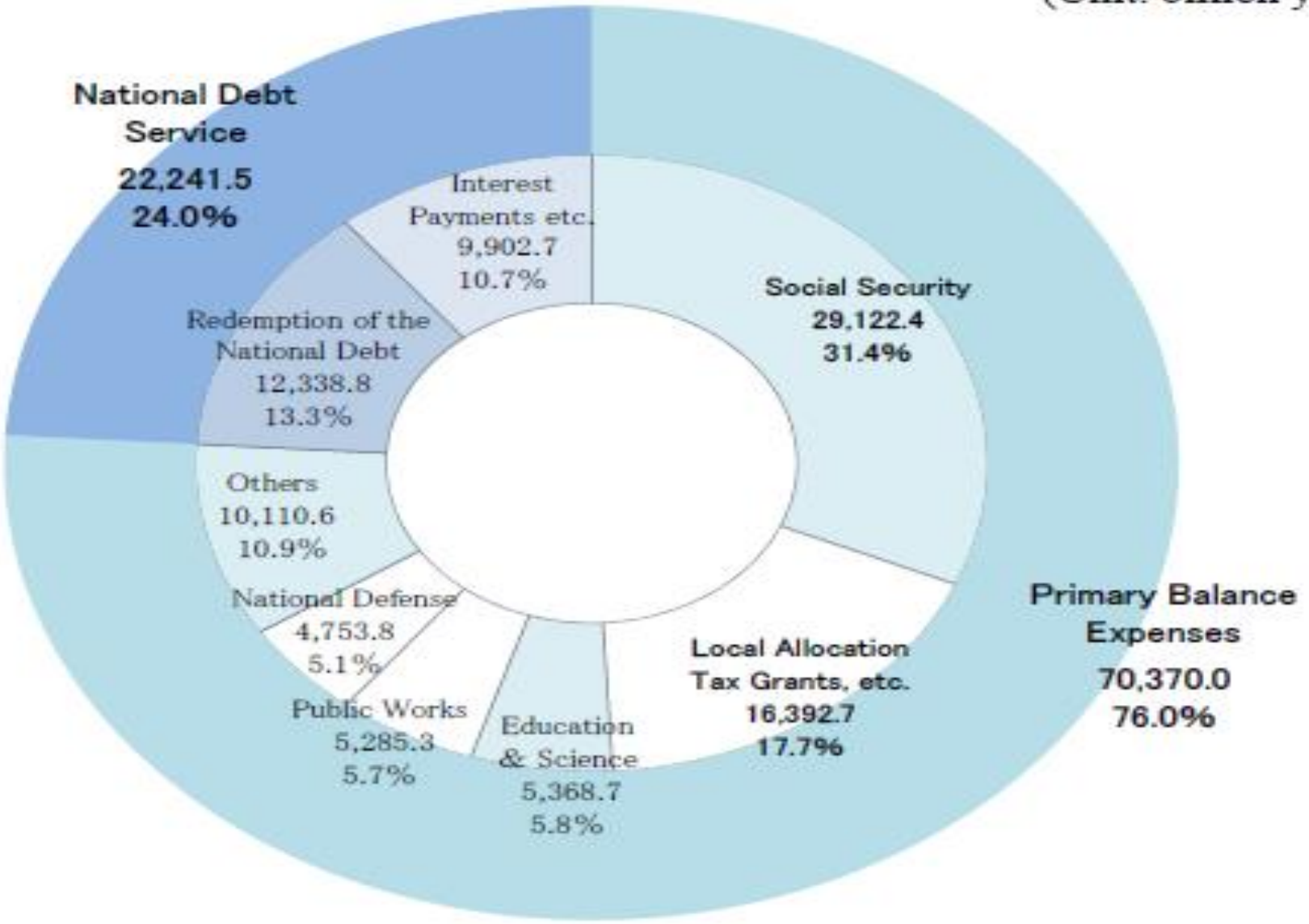
Source: CIA Fact Book

Population Trends in Japan

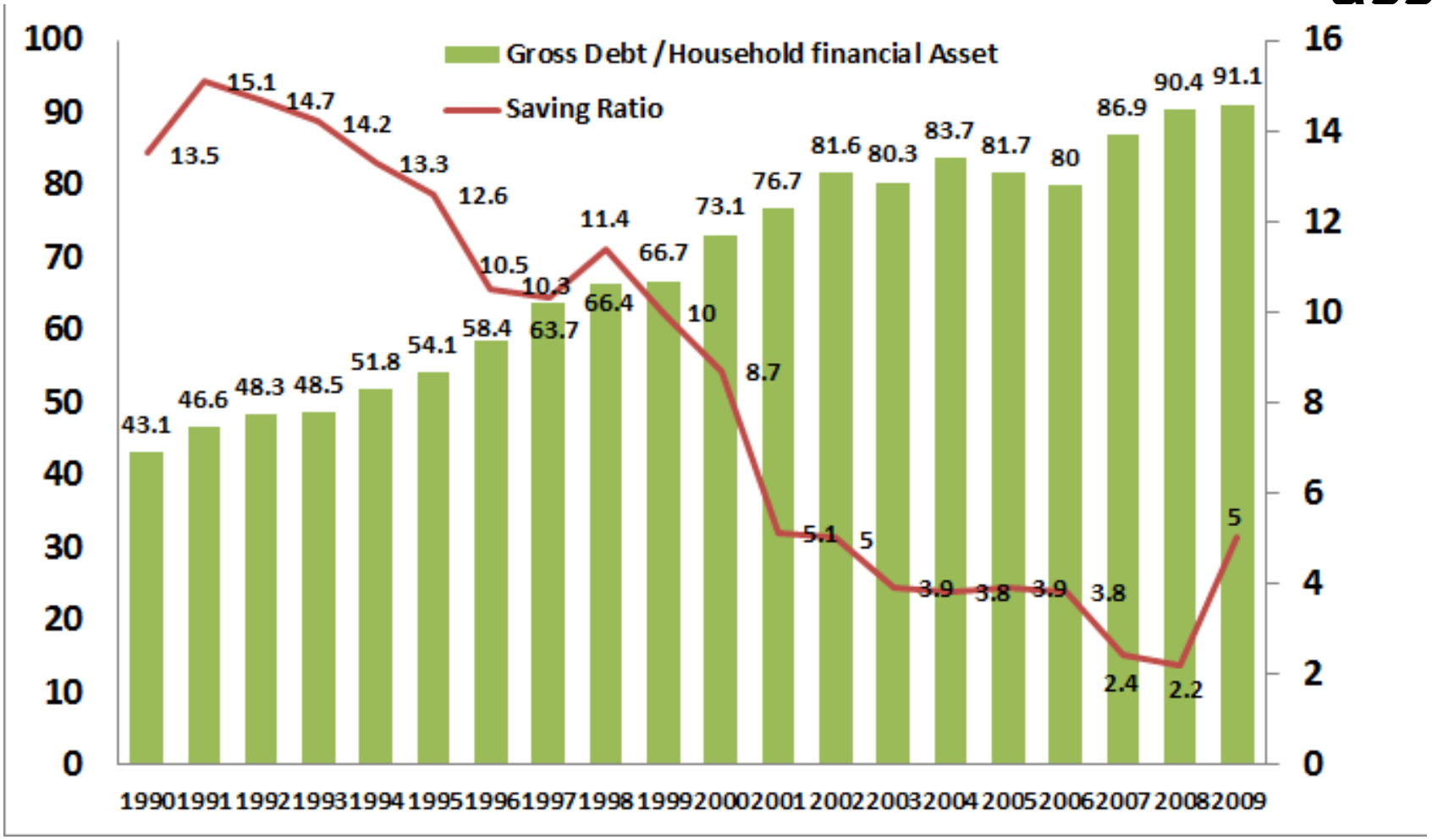


Framework of General Account (FY2013)

(Unit: billion yen)



Trends of Households' Savings Ratio and Government debt/Households' financial assets



Source: MOF

Japanese Debt, 92% are held by Domestic Investors

HOLDERS	%
Banks and Postal Savings	45%
Life and Non-life Insurances	20%
Public Pension funds	10%
Private Pension Funds	4%
Central Bank of Japan	8%
Overseas' Investors	8%
Households	5%
Others	3%

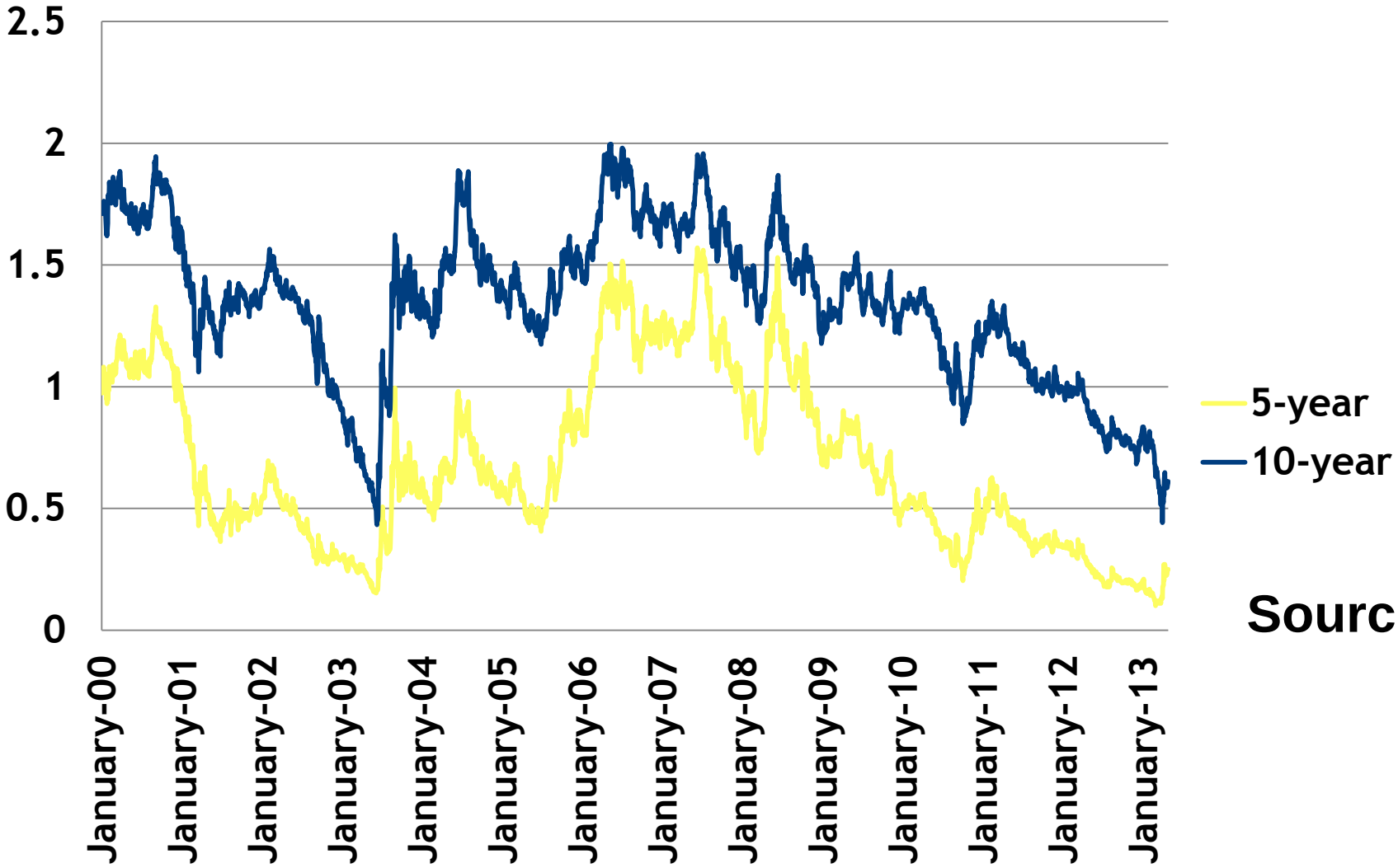
Source: MOF

Greece, 80% of their debts are held by overseas' Investors

HOLDERS	%
Eurozone	15%
ECB	15%
IMF	6%
Greek banks & non-banks	23%
Other European Banks	10%
Non European Banks	8%
Non-Greek non-Banks	23%

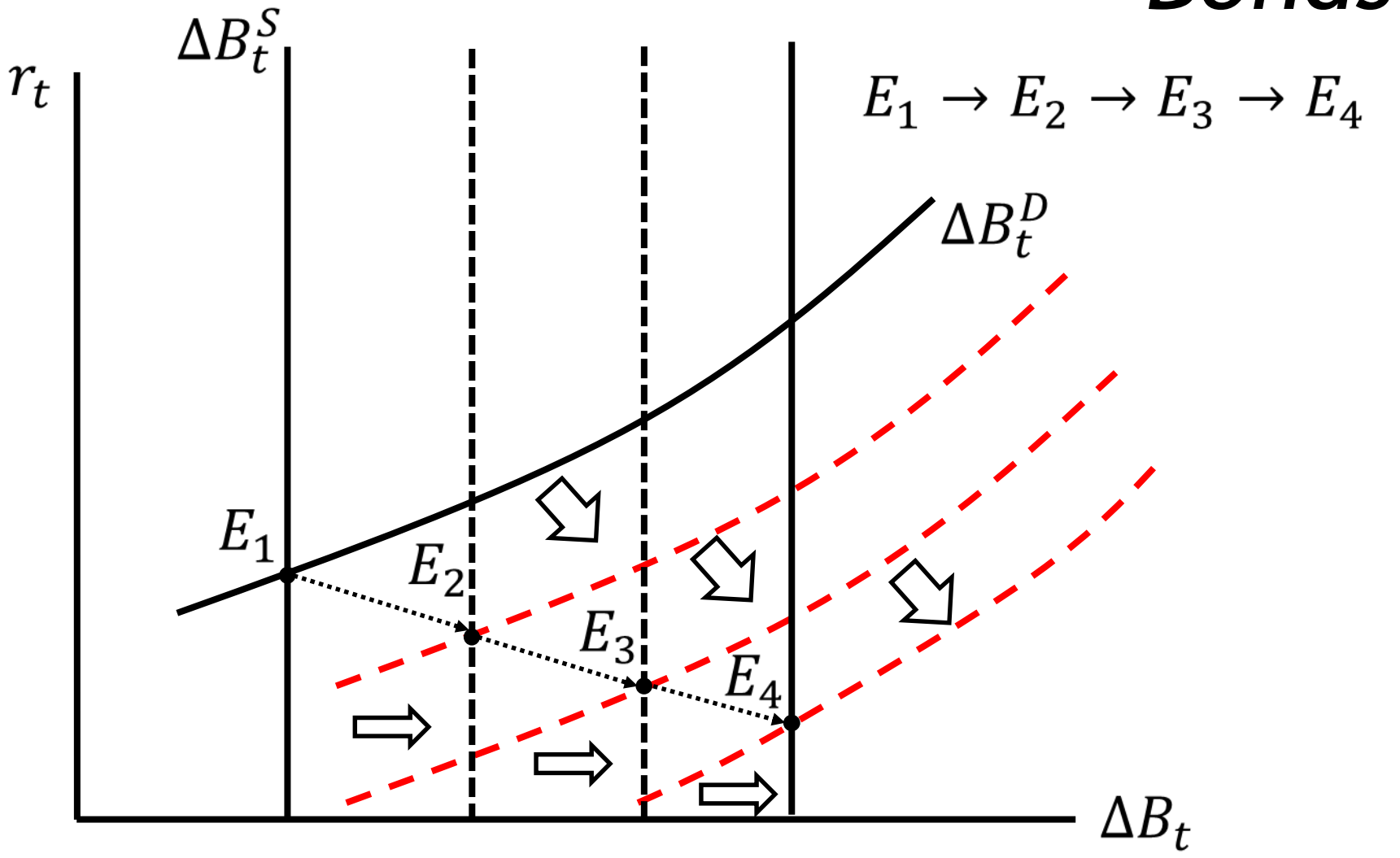
Source : Financial Tim

Japanese Government Bond Yields

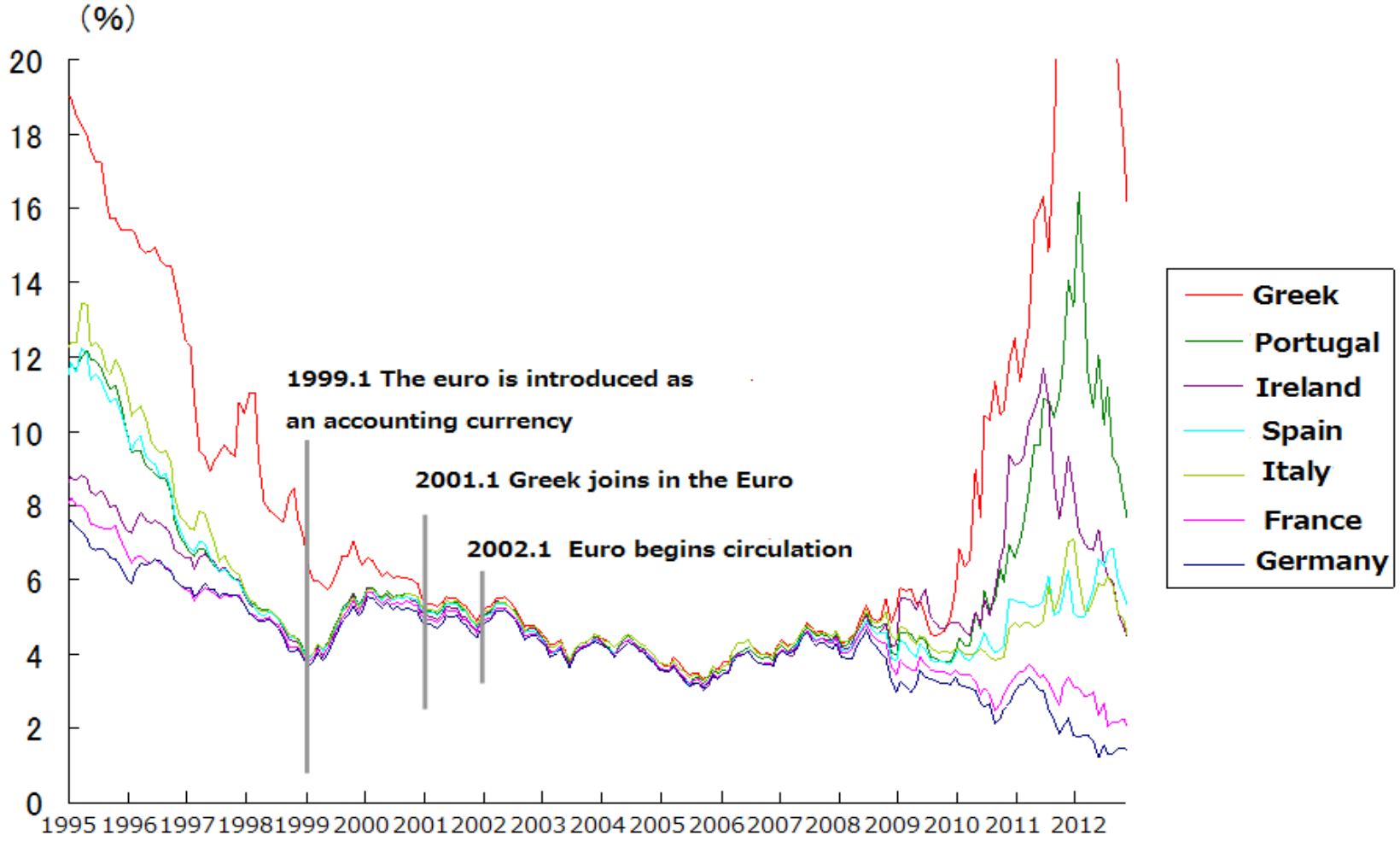


Source: M

Japan's Supply and Demand for Bonds



Government long-term bond yield (Eurozone)



Greece Supply and Demand for Government bonds