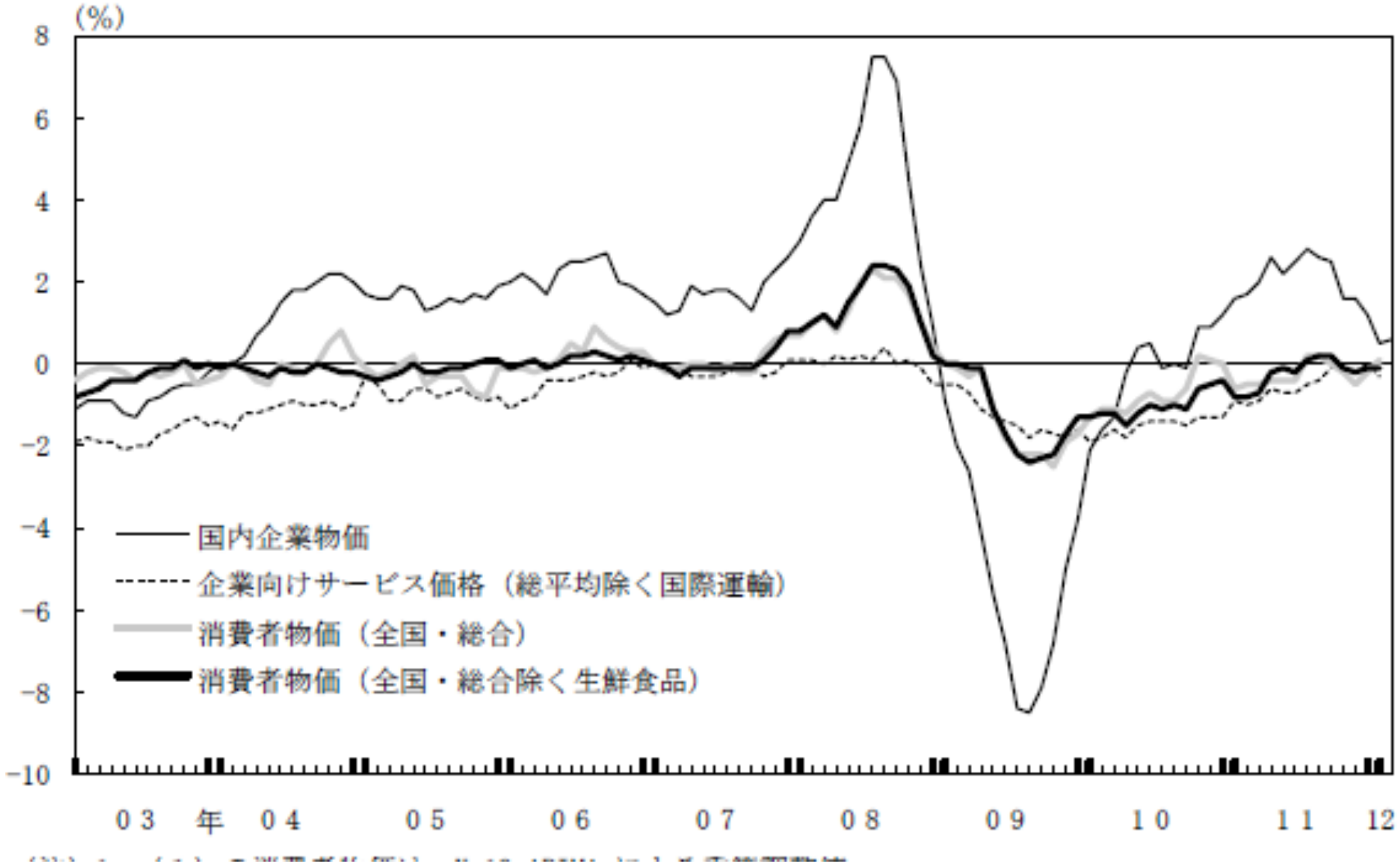
Inflation Rate of Japan



(1) Short-Term Interest Rates

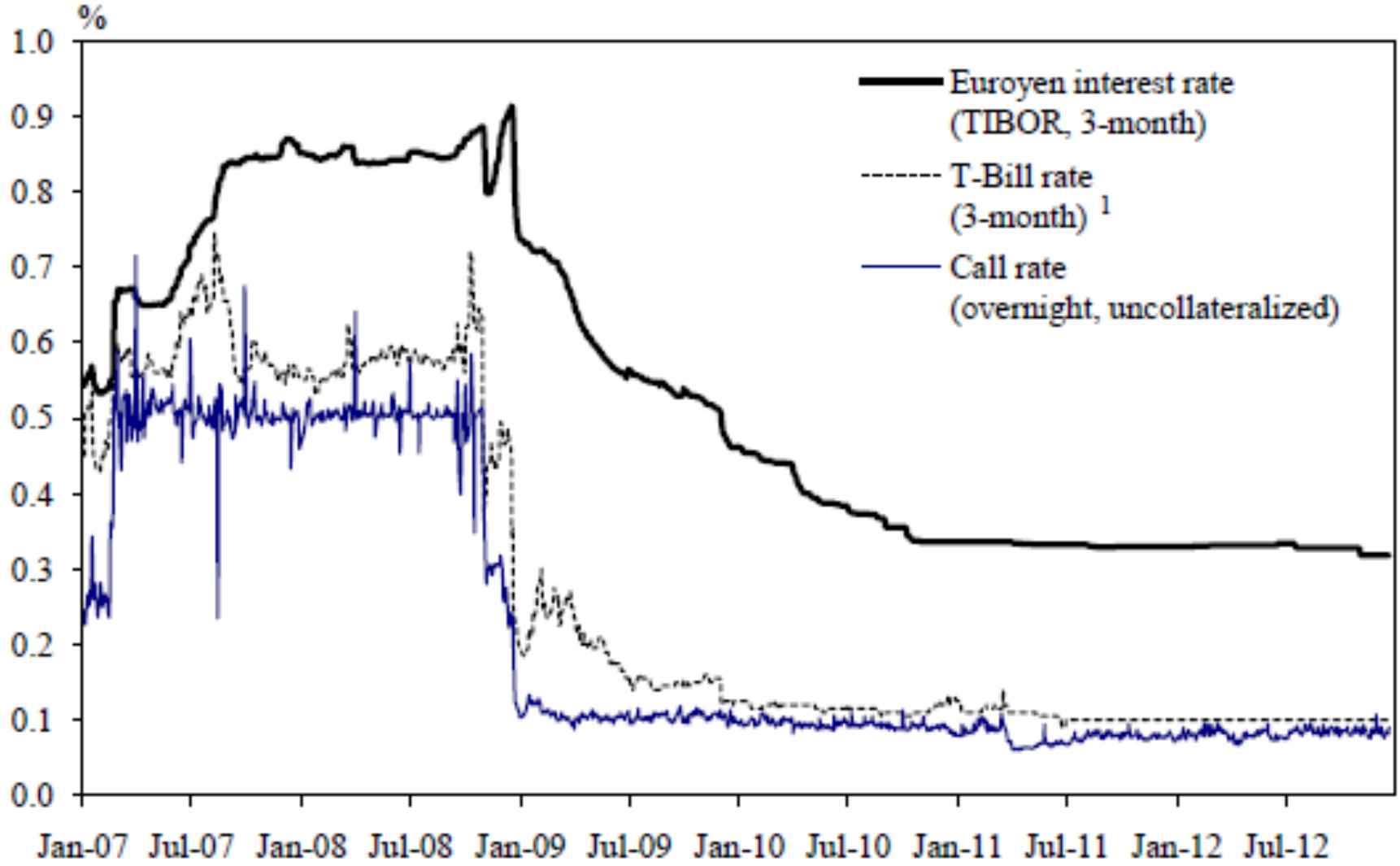
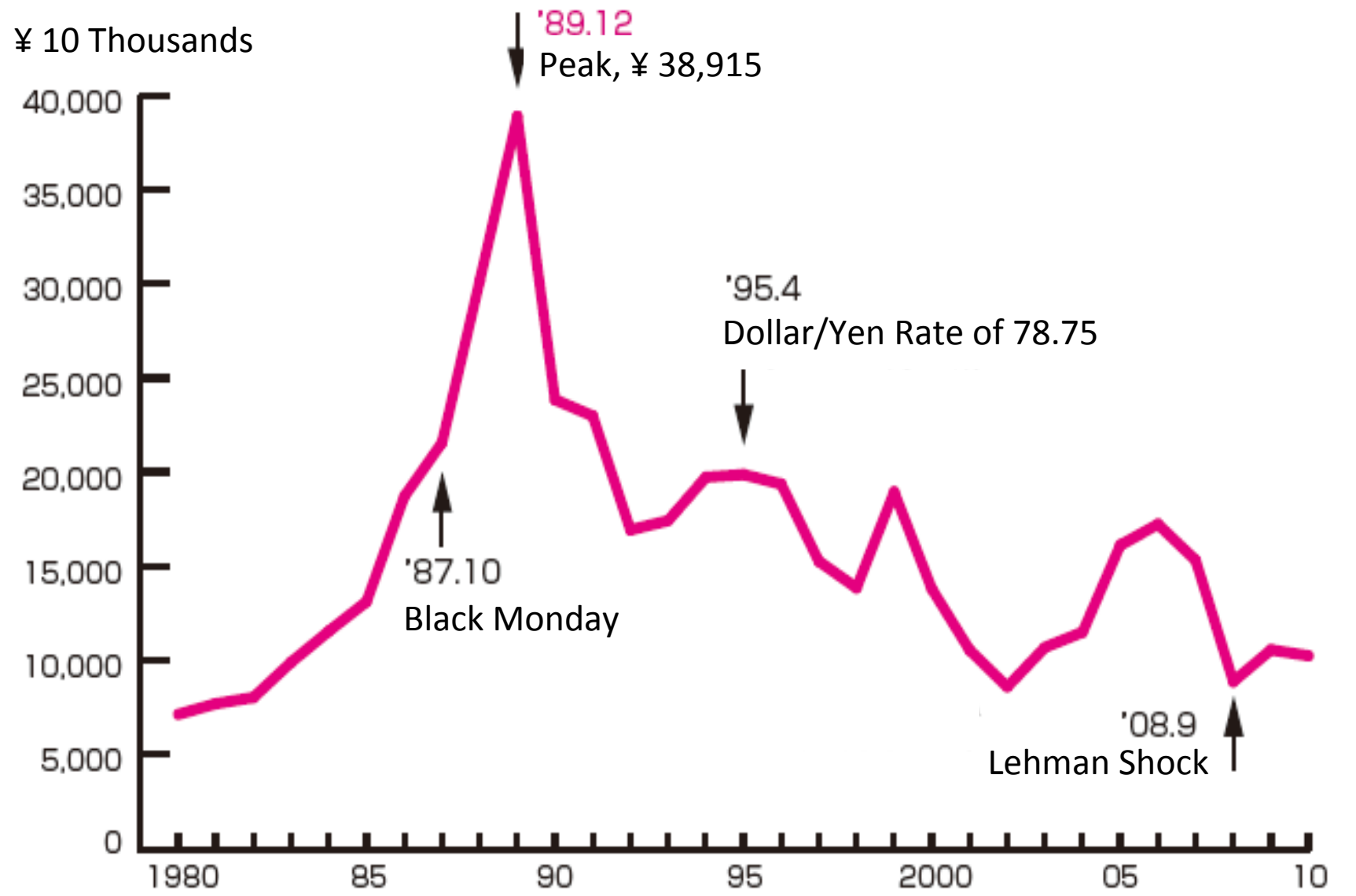
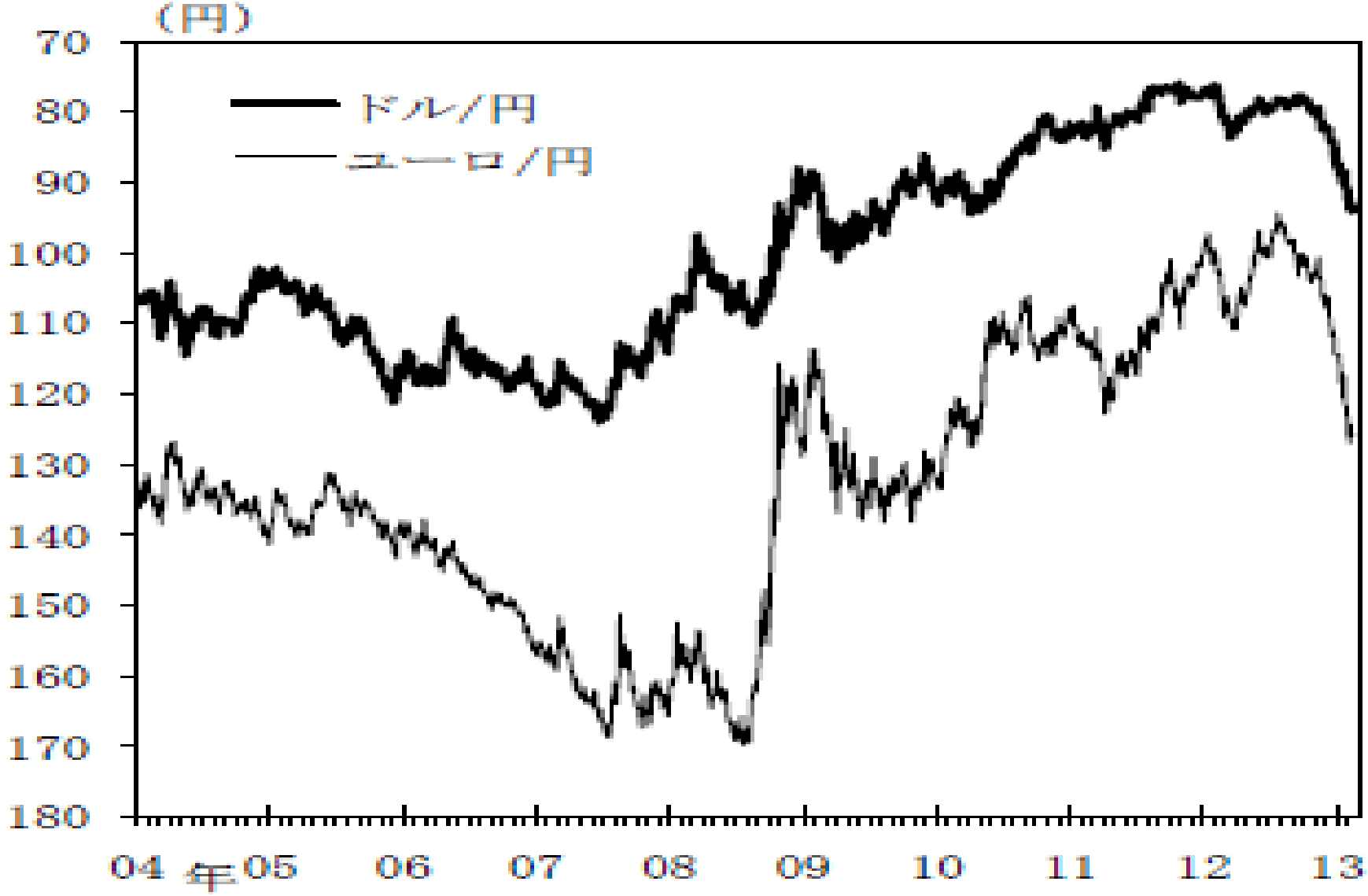


Figure 8, Nikkei Stock Average

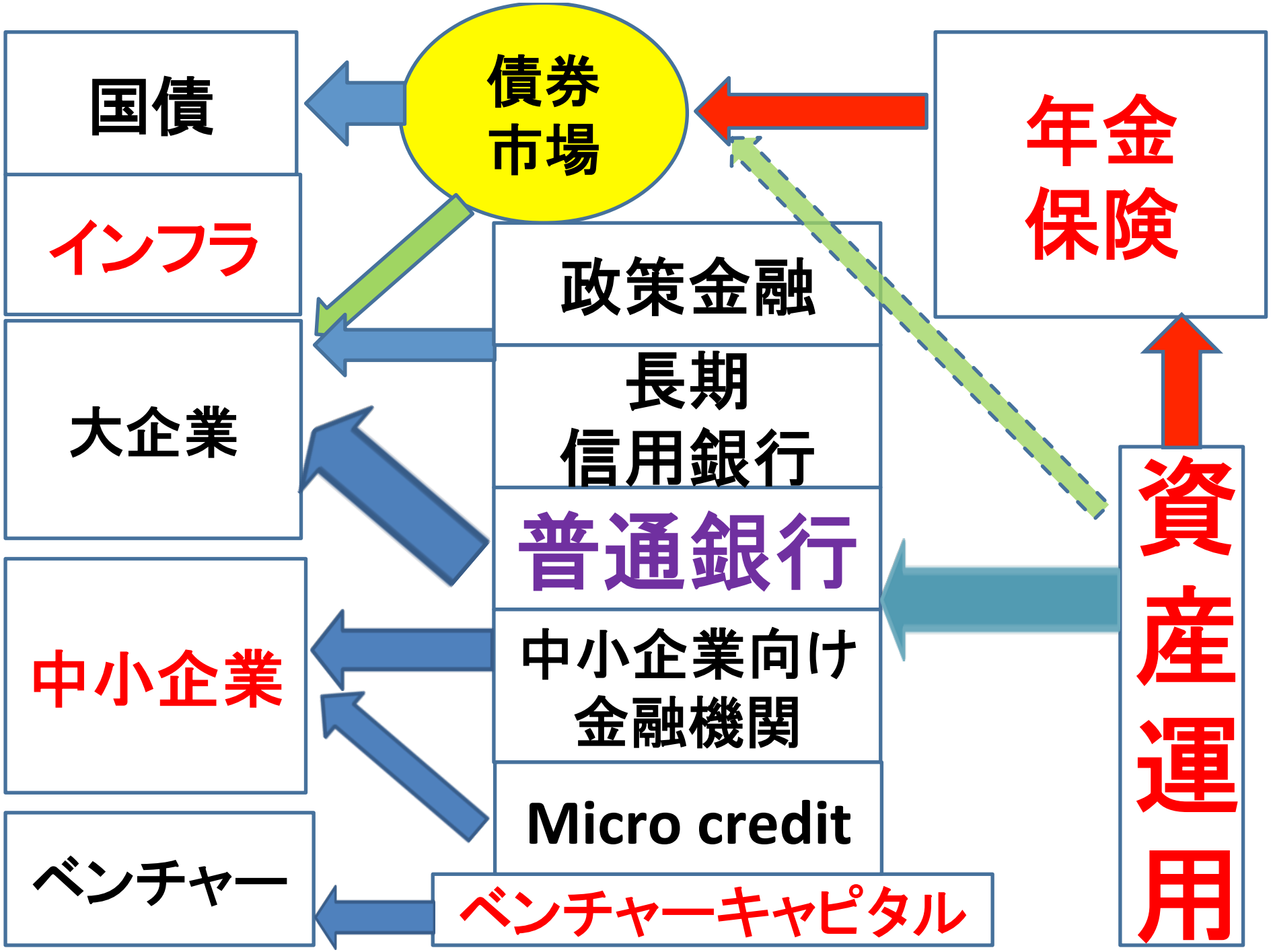


Yen/Dollar, Yen/Euro Exchange Rates



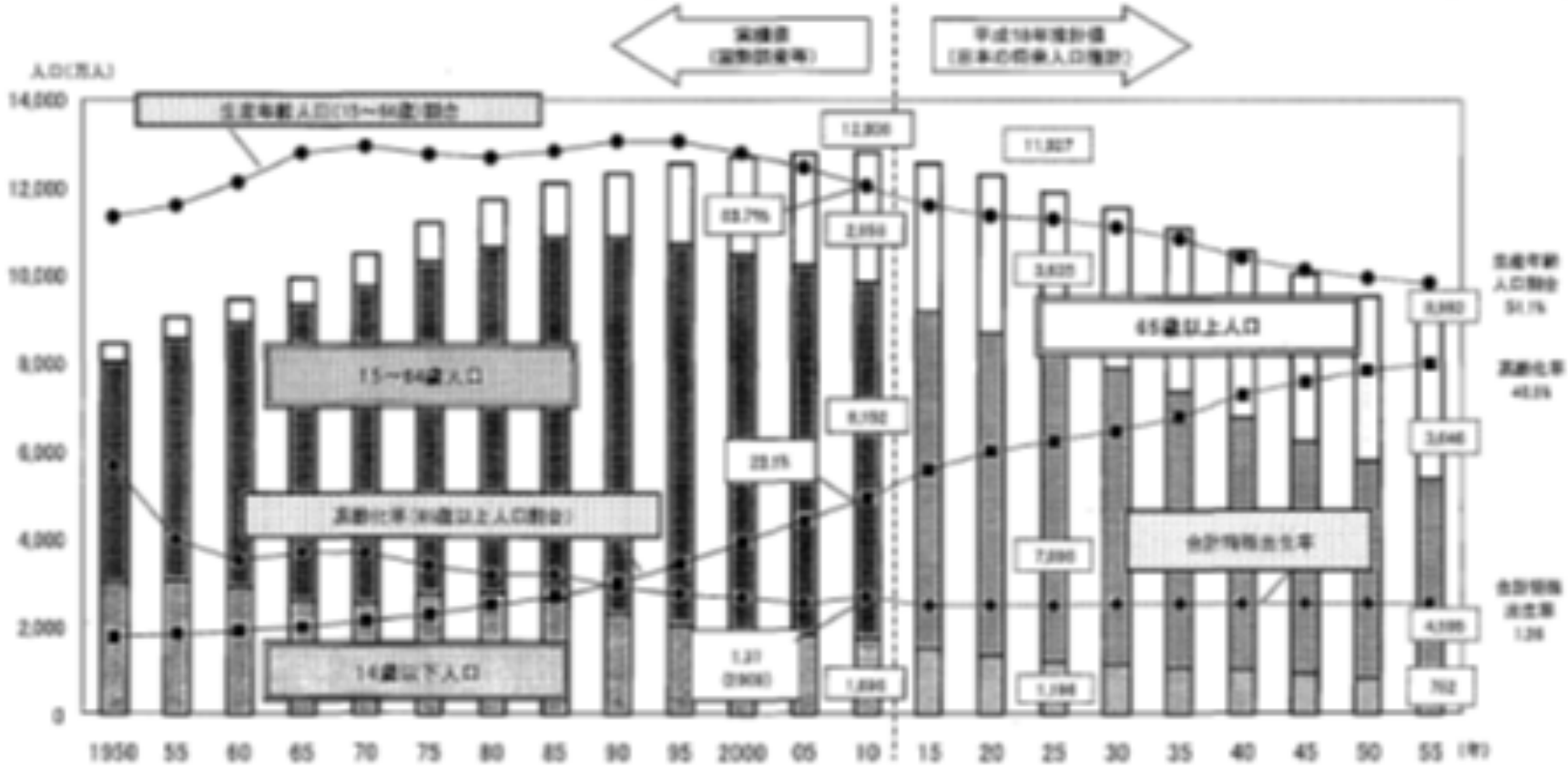
(1) Financial Position

<Tankan[1]>


国債
インフラ
大企業
中小企業
ベンチャー
債券
市場
政策金融
長期
信用銀行
普通銀行
中小企業向け
金融機関
Micro credit
ベンチャーキャピタル
年金
保険
資産運用

我が国人口・高齢化率の推移

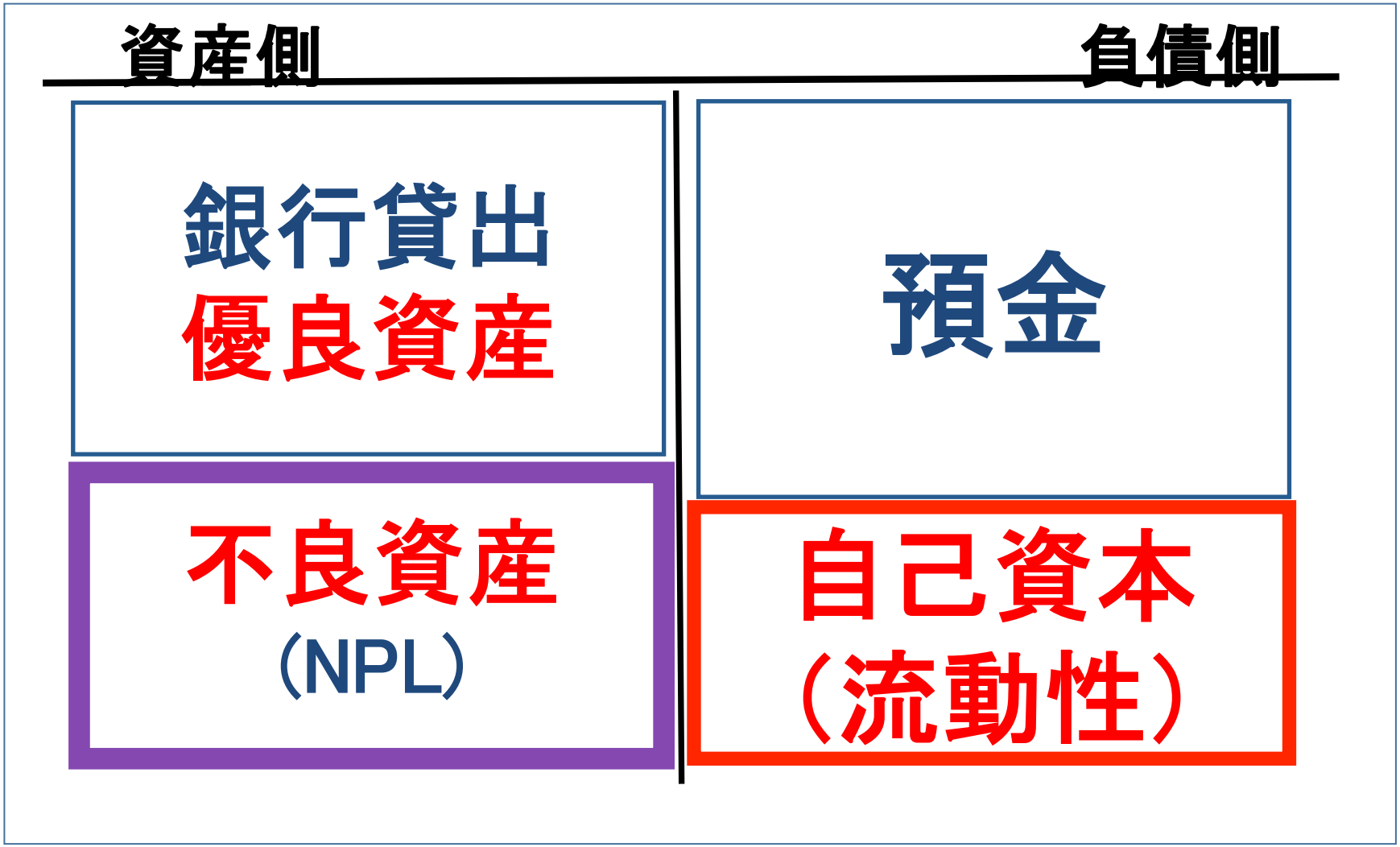
○ 我が国の2010年人口は1億2,806万人と、近年は横ばいで推移している。
2055年には9000万人を割り込み、高齢化率は40%を超えると推計されている。



資料 2005年までは総務省統計局「国勢調査」、2010年は総務省統計局「推計人口(10月1日現在)」、
2015年以降は国立社会保障・人口問題研究所「日本の将来推計人口(平成18年12月推計)中位推計」

バーゼル自己資本比率規制

銀行貸出はリスク取りにくくなる



世代間の負担の不公平化を懸念

1950s, 退職年齢 55才，　平均寿命 59才

2010,　退職年齢 60,65才, 平均寿命 88才

(1)長く働いてもらい、年金に頼る期間を短縮

給与は限界生産性に依存させて設定

60->65->70 才以上まで、長く働ける社会へ

若者の職務内容を奪わない高齢者の雇用

(2)　女性の社会進出の促進

(3)　元気な高齢者による「放課後指導」

(4)　高齢者のためのロボット開発

投資信託の改善点

1、販売手数料の最大化
2、投資家と販売会社の目的関数の不一致
3、海外投信、その通貨でしばらく持っておく
4、海外の情報
5、為替リスク

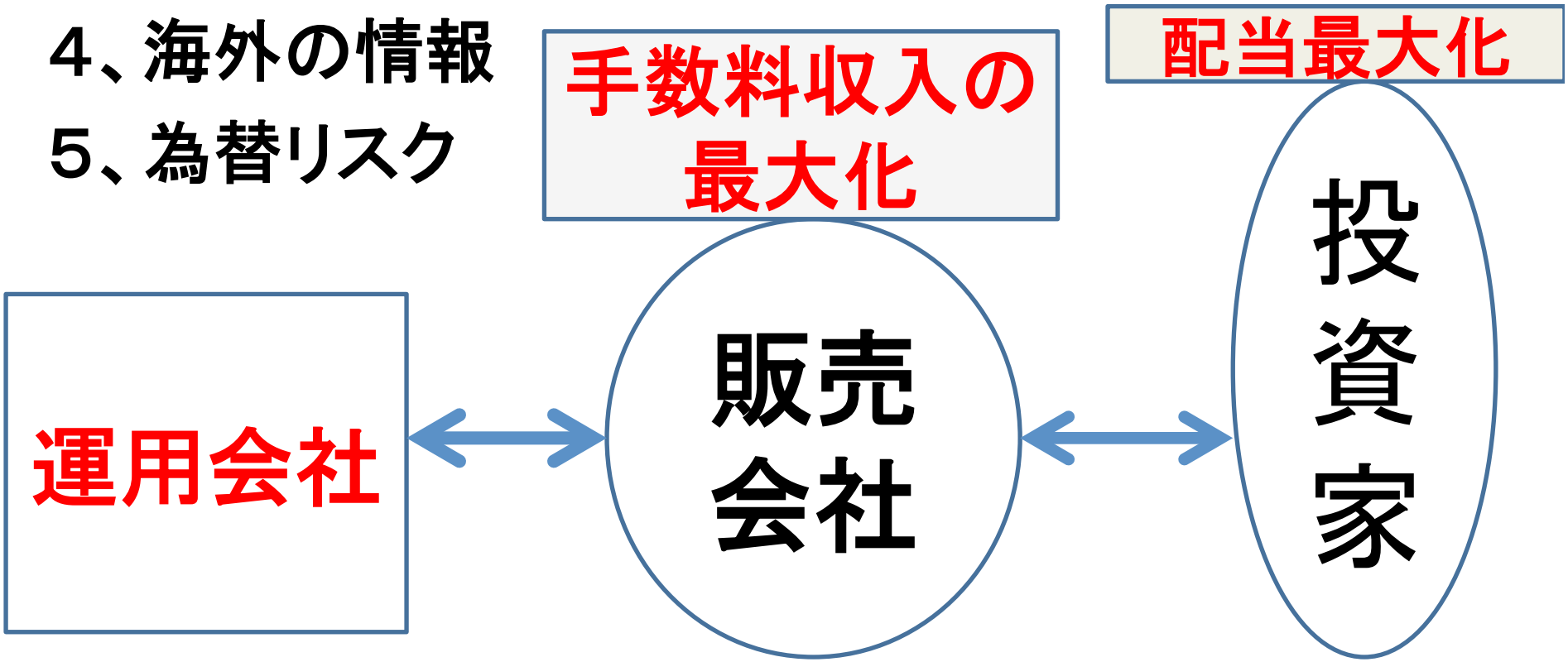
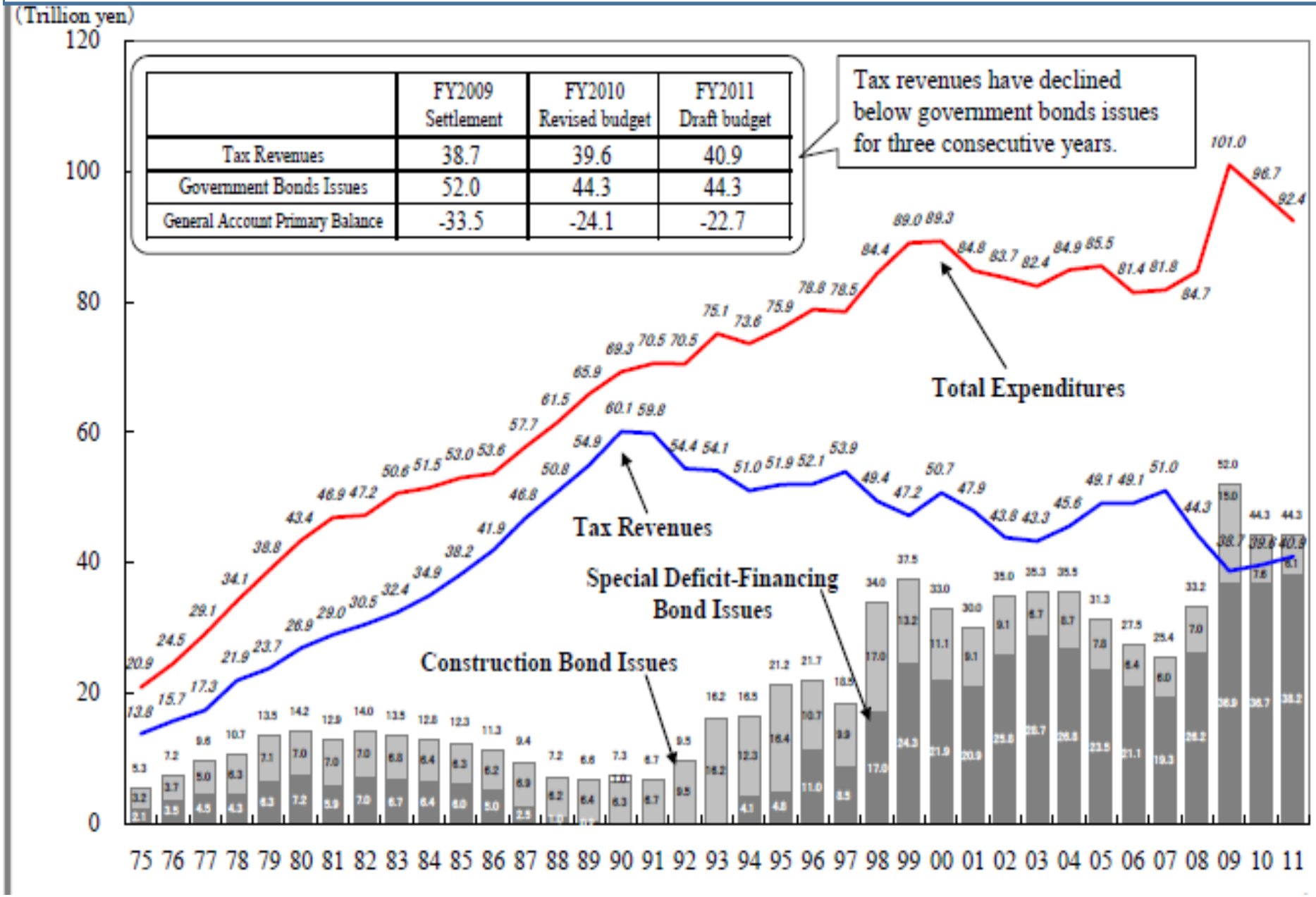
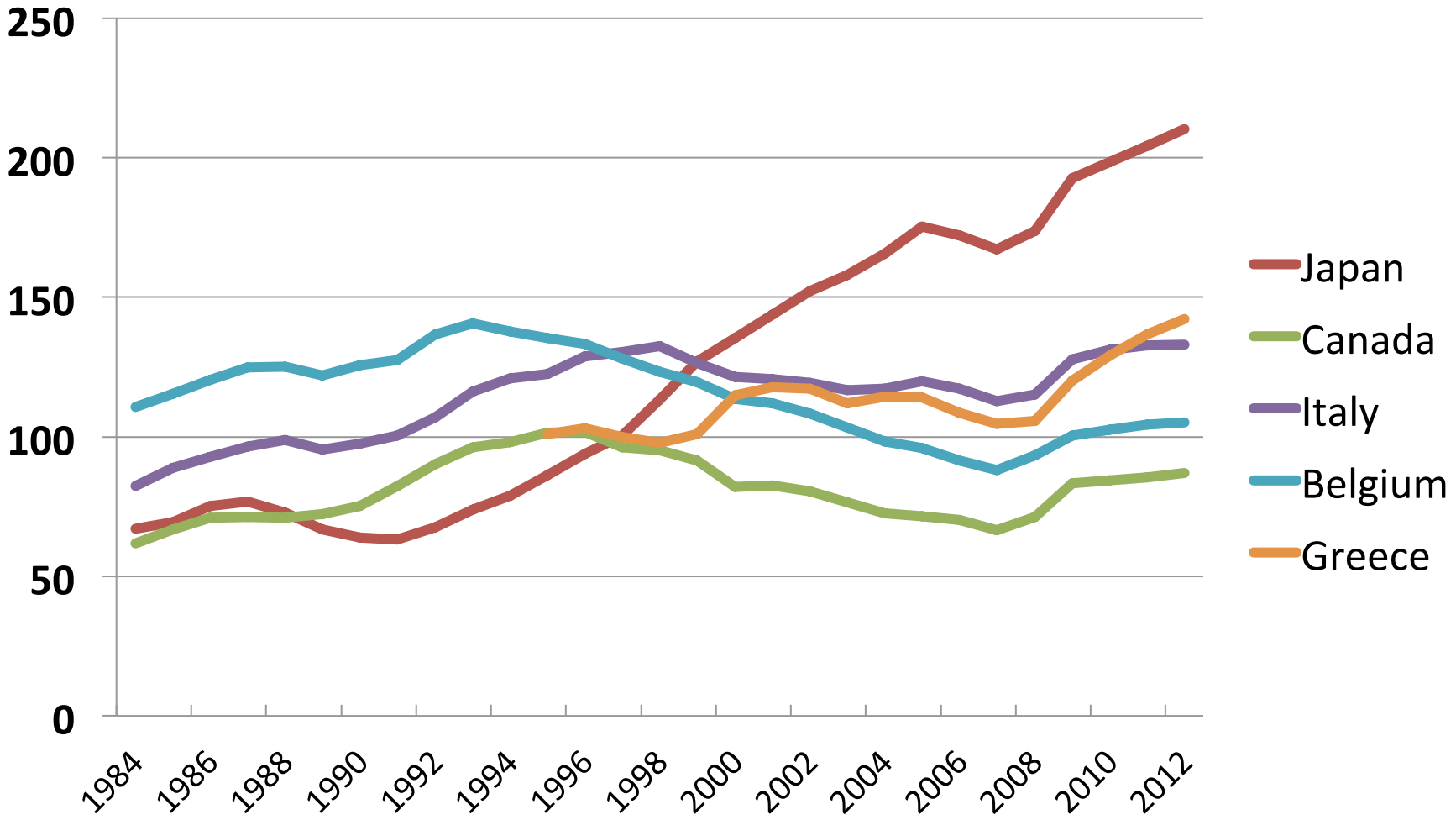


Figure 1 General Account Expenditures, Tax Revenues and Government Bond Issues



Gross Debt/GDP ratio (2012)
(Selected Countries)



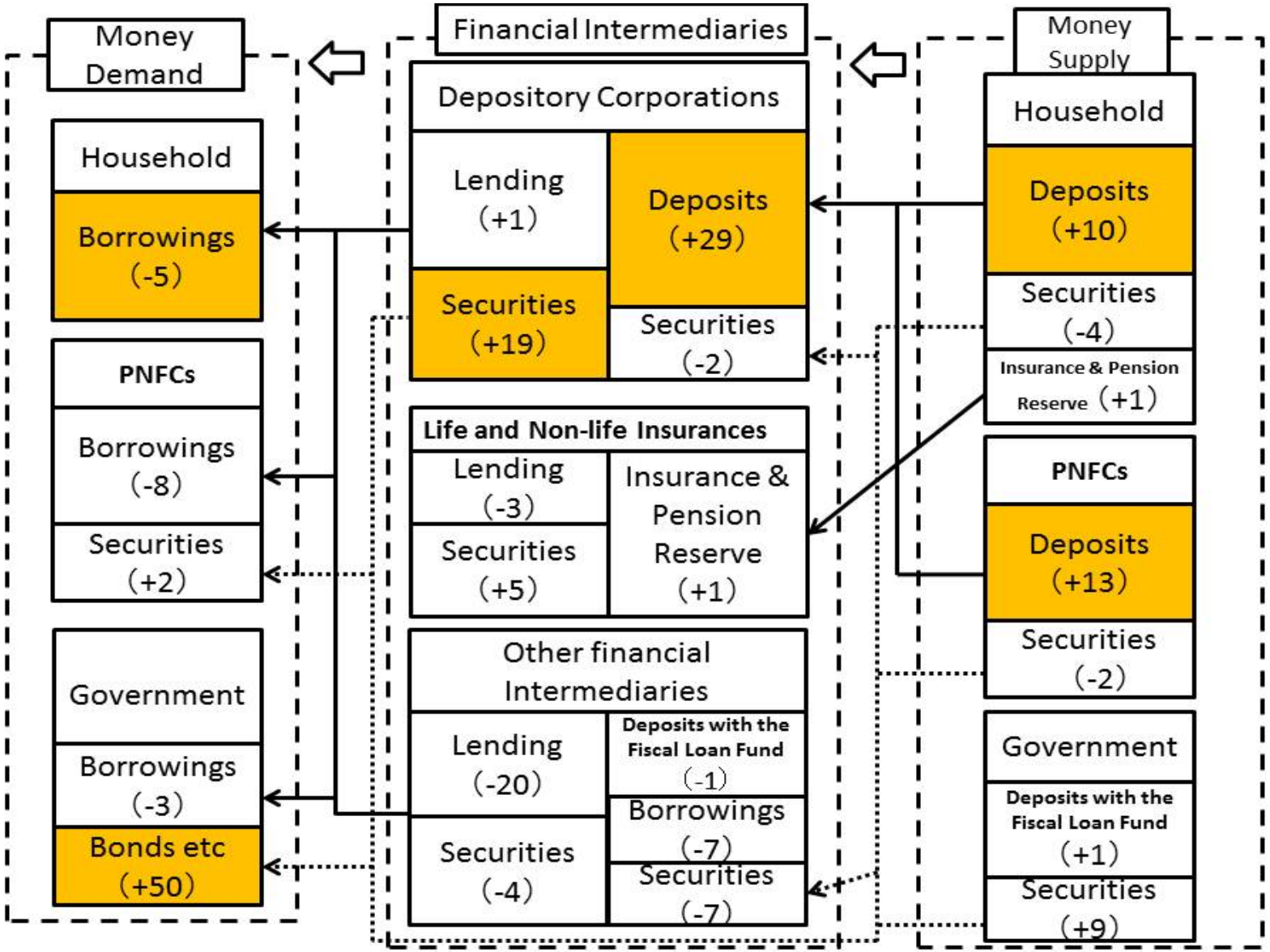
Source: OECD Economic Outlook

Financial Flow in Japan (1980—1990) (Includes the period of bubble)

	CB	PRFI	PS	GFI	PRFirm	PUFirm	GOV	HH	ROW	Total
CB	0	1.09	0	0	0	-0.07	1.55	0.02	0.09	2.69
PRFI	0.80	**42.83**	0	1.49	**40.61**	1.70	**5.07**	**14.38**	**13.48**	**120.37**
PS	0	0.03	0	**7.65**	0	0	0.76	0	0	8.44
GFI	0.21	1.70	1.04	**4.72**	2.17	1.29	**7.47**	3.72	0.45	22.77
PRFirm	0.78	15.36	0	0.33	**27.25**	0.45	0.47	2.31	5.40	52.35
PUFirm	0.08	0.77	0	0	0	-0.07	-0.10	-0.11	0	0.57
GOV	0.07	5.05	0	**6.22**	4.00	0.34	0.49	0.18	0.86	17.20
HH	1.02	**45.21**	**7.50**	0.28	9.69	0.36	0.73	0.15	0.99	65.93
ROW	0	10.07	0	0.19	4.88	0.68	0.37	0.77	1.78	18.74
Total	**2.96**	**122.11**	**8.54**	**20.88**	88.61	4.68	**16.82**	21.42	23.04	

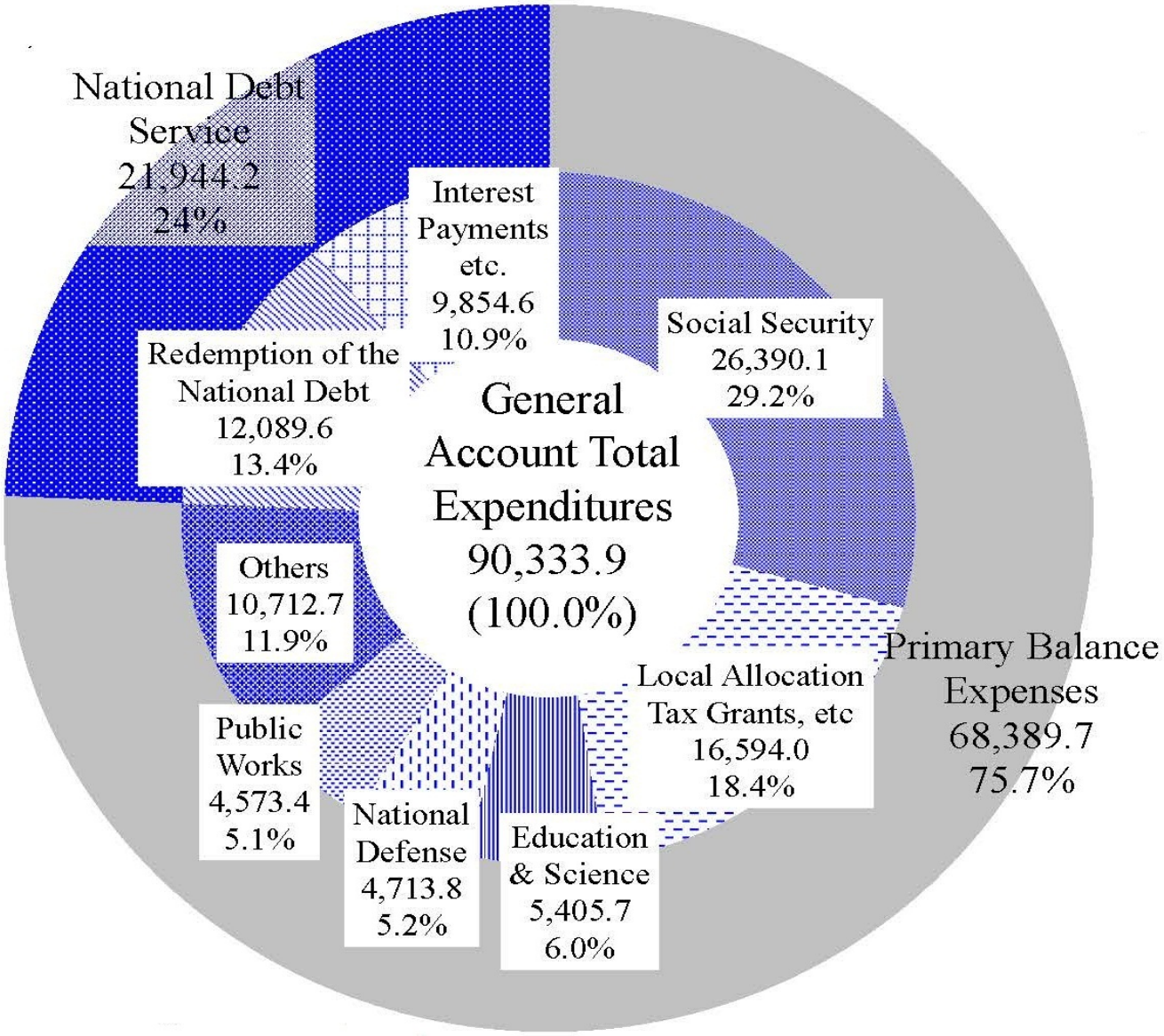
Source: BOJ Flow of Funds

Recent Money Flow of Japan



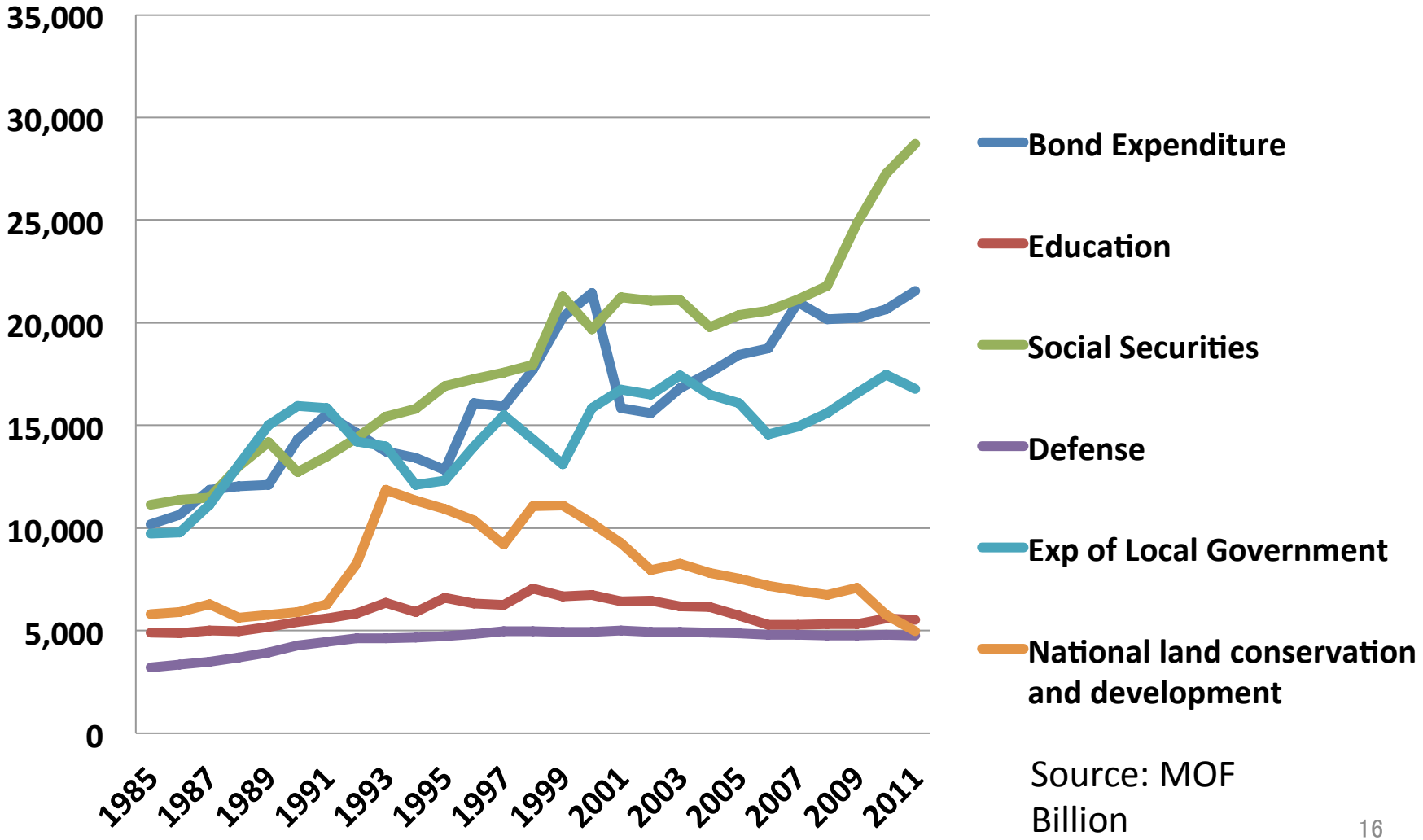
Source:
BOJ Flow of Funds

FY 2012 Initial Budget (Japan)



Source: MOF

Budget Allocation of Central Government (Japan, 1985-2011)



Source: MOF

Billion

Greece, 80% of their debts are held by overseas' Investors (2011)

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%

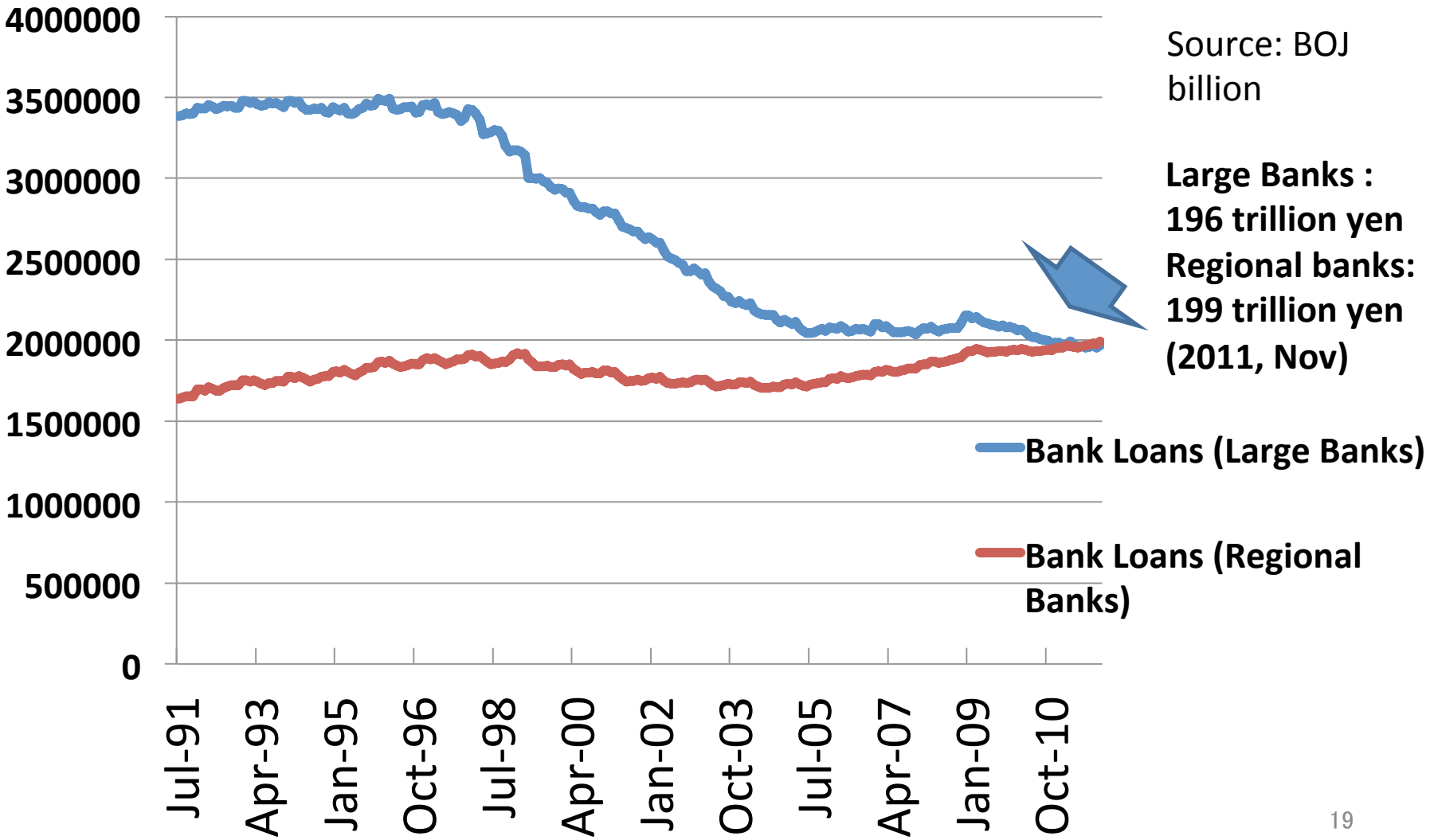
Source : Financial Times

Japanese Debt, 95% 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	**5%**
Households	5%
Others	3%

Source: MOF

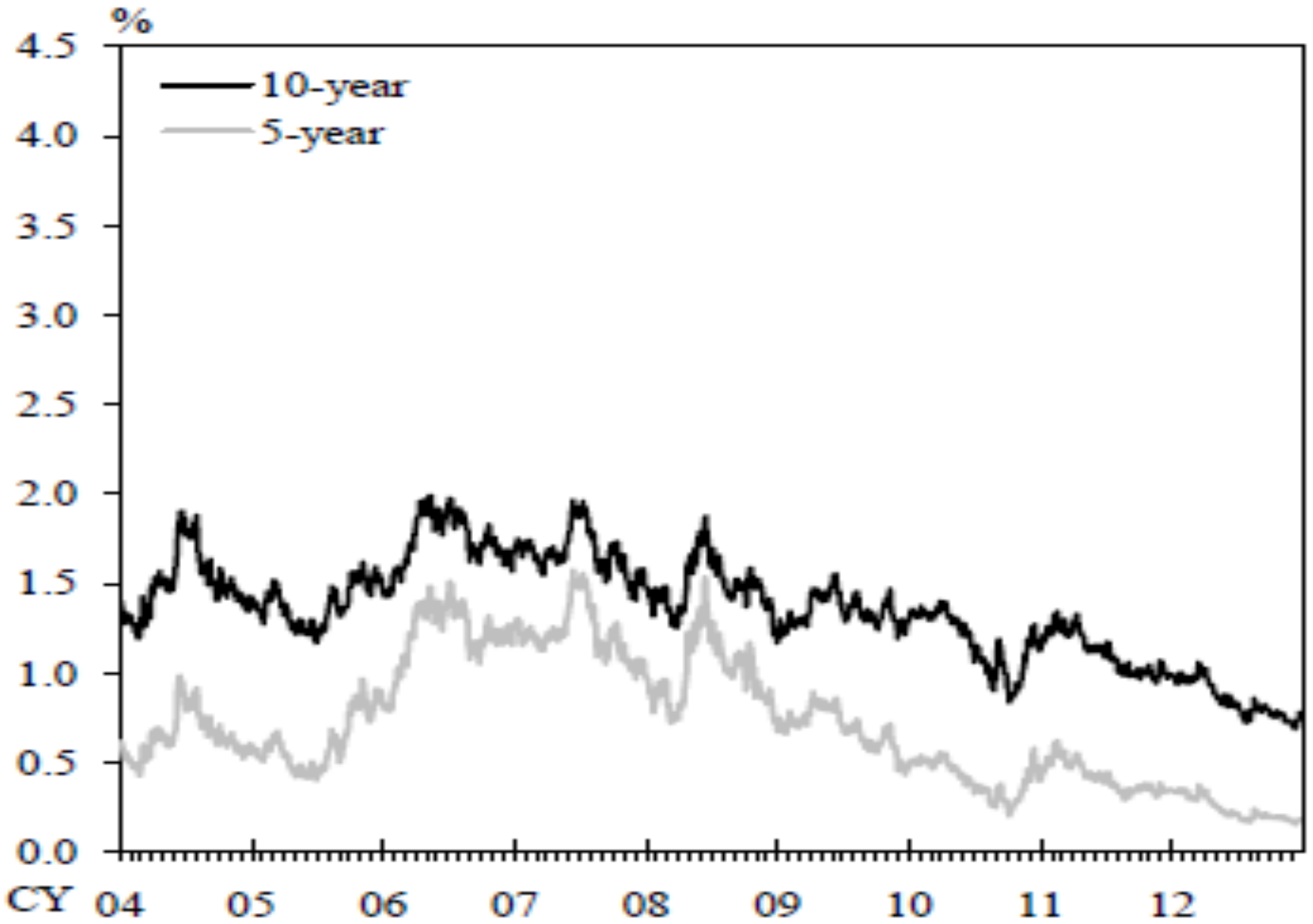
Bank Loans



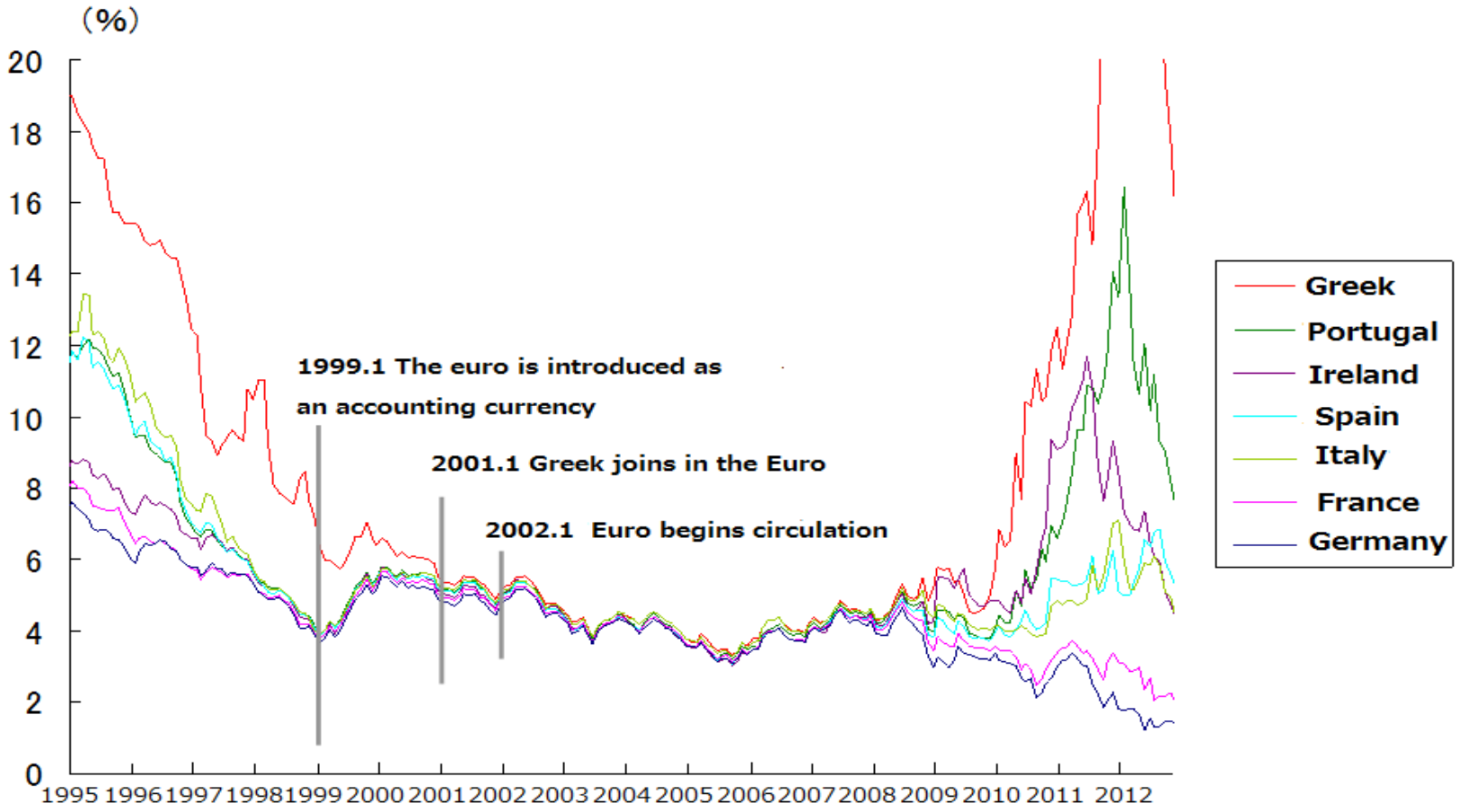
Source: BOJ
billion

Large Banks :
196 trillion yen
Regional banks:
199 trillion yen
(2011, Nov)

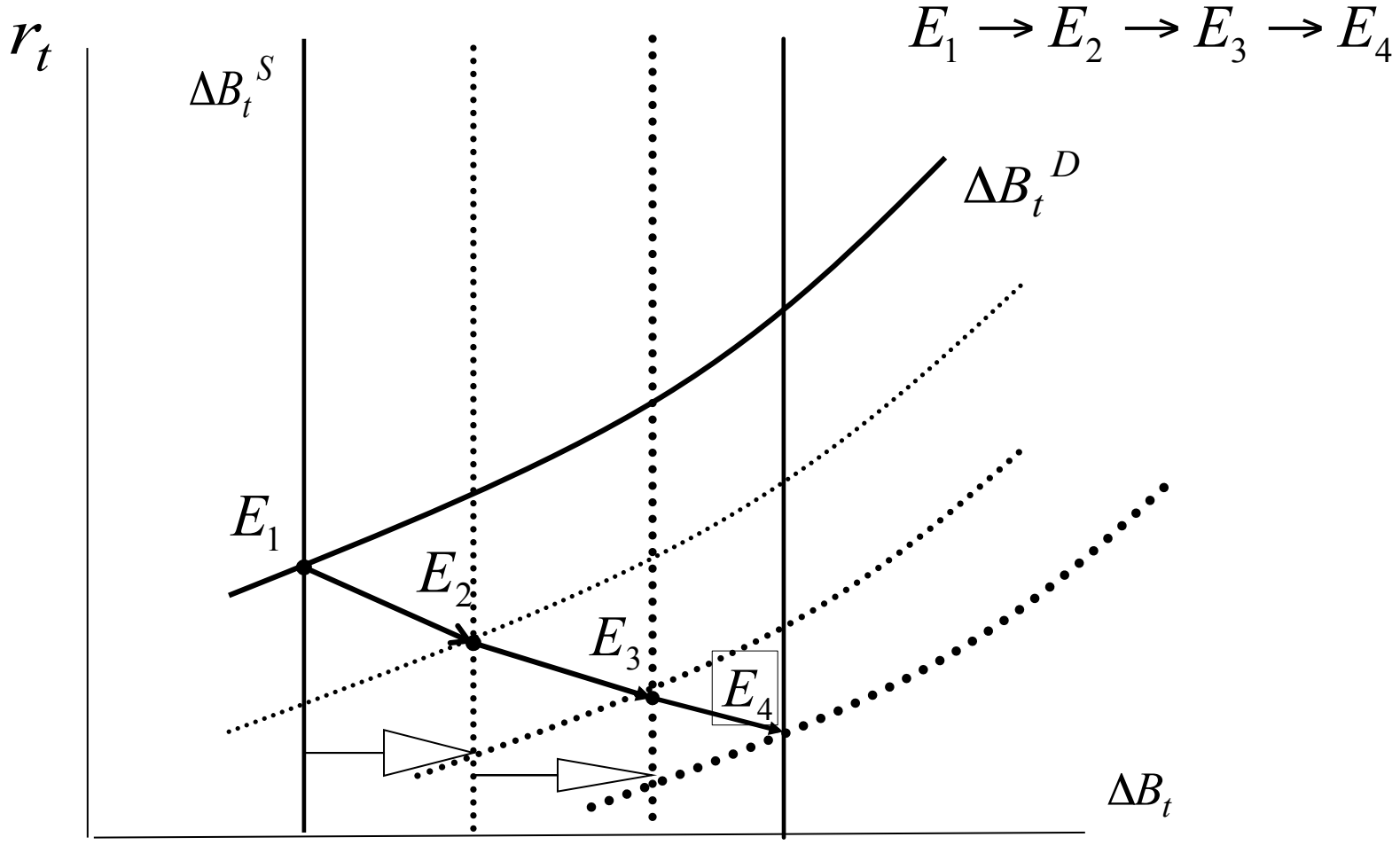
(1) Japanese Government Bond Yields[1]



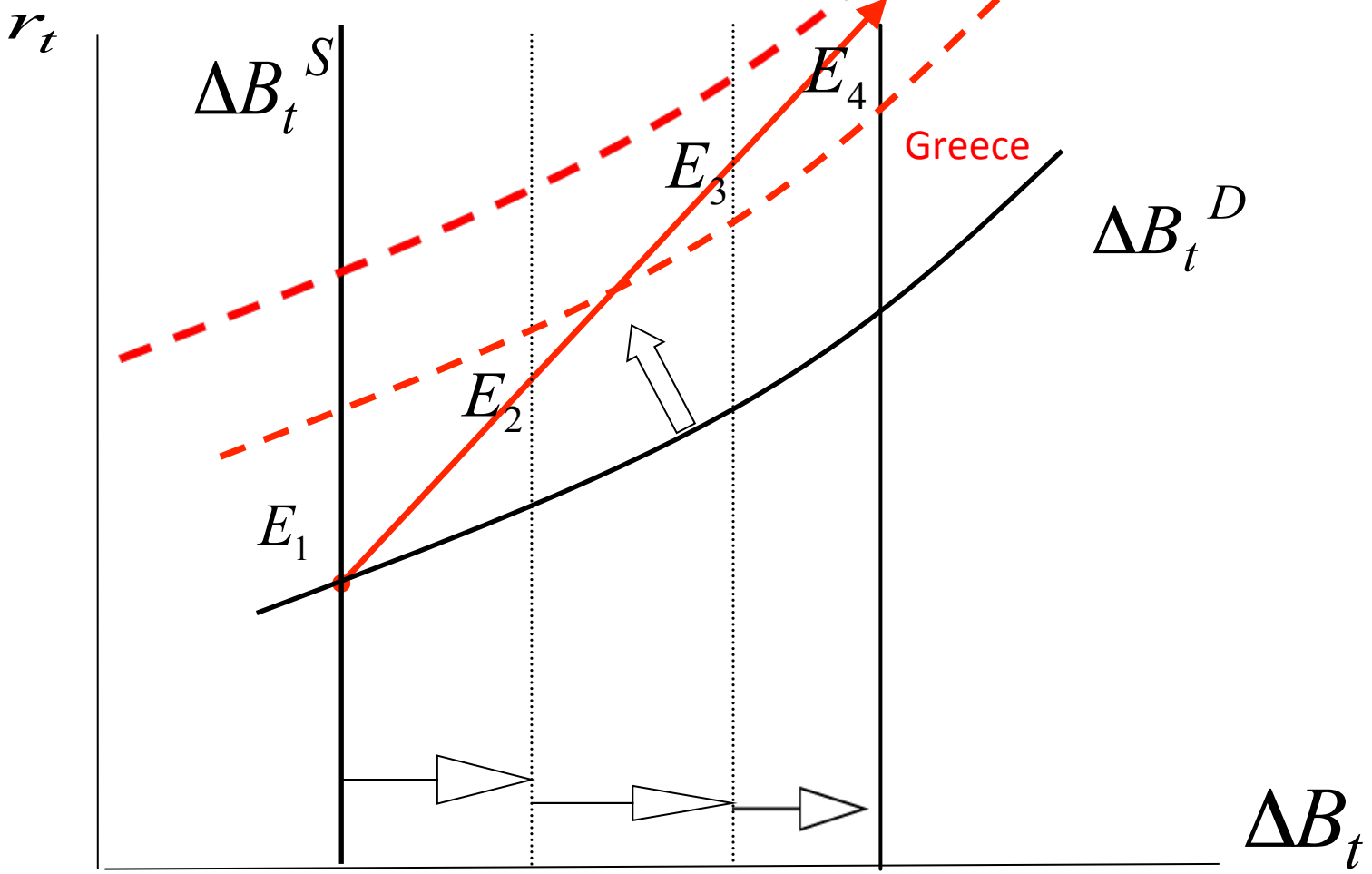
Gov long-term bond yield (Eurozone)



Japan's Supply and Demand for Bonds



Greece Supply and Demand for Government bonds



$$E_1 \rightarrow E_2 \rightarrow E_3 \rightarrow E_4$$

Objective Function of the Government

(i)Stable Economic Growth,
(ii)Sustainable Debt /GDP ratio,
(iii)Smooth Government Spending
(iv)Smooth Tax
Minimize the following loss function:

$$\mathrm{L}(B\downarrow t, Y\downarrow t, G\downarrow t, T\downarrow t) = 1/2\ w\downarrow 1\ (B\downarrow t - B\downarrow t\uparrow *)\uparrow 2 + 1/2\ w\downarrow 2\ (Y\downarrow t - Y\downarrow t\uparrow f)\uparrow 2 + 1/2\ w\downarrow 3\ (G\downarrow t - G\downarrow t - 1)\uparrow 2 + 1/2\ w\downarrow 4\ (T\downarrow t - T\downarrow t - 1)\uparrow 2$$

Subject to $G\downarrow t + r\downarrow t\ B\downarrow t - 1 = \Delta B\downarrow t + T\downarrow t$

Supply and Demand for Government bond

$G_t + r_t B_{t-1} = B_t + T_t$ Government Flow Budget Constraint (Bond Supply)

$Y_t - T_t + r_t B_{t-1} + \theta G_t = C_t + S_t$

where $S_t = B_t + W_t - W_F$ (Bond Demand)

$C_t = c_0 + c_1 YD_t$ Consumption Equation

$W_t = d_0 + d_1 YD_t + d_2 r_t$ DepositEquation

$YD_t = Y_t + \theta G_t + r_t B_{t-1} - T_t = C_t + S_t$ Disposable Income

We can rewrite the Bond demand equation as the following form:

$B_t = Y_t + \theta G_t + r_t B_{t-1} - tY_t - C_t - W_t$

Fiscal Policy Rule to stabilize Government Budget Deficits

Our Proposed Government Spending Rule is

$$G_t = a_0 + a_1 T_t + a_2 (B_t - B_t^{*}) + a_3 (Y_t - Y_t^{f}) + a_4 G_{t-1} + a_5 W_{t-1}$$

(i) the amount of tax collected T_t

(ii) Current Debt – Desired Debt

(iii) GDP-gap

(iv) the level of government spending in previous year (G_{t-1})

(v) Affordability of Financial Wealth which can be allocated to hold Government Bonds

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- **Yoshino, N and S, Kaji (2013), Hometown Investment Trust Funds, Springer**
- **吉野直行、[日本経済の真実を語ろう]、東京書籍、2012**
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Figure 2, Financial Asset Allocation of US, Japan and Germany

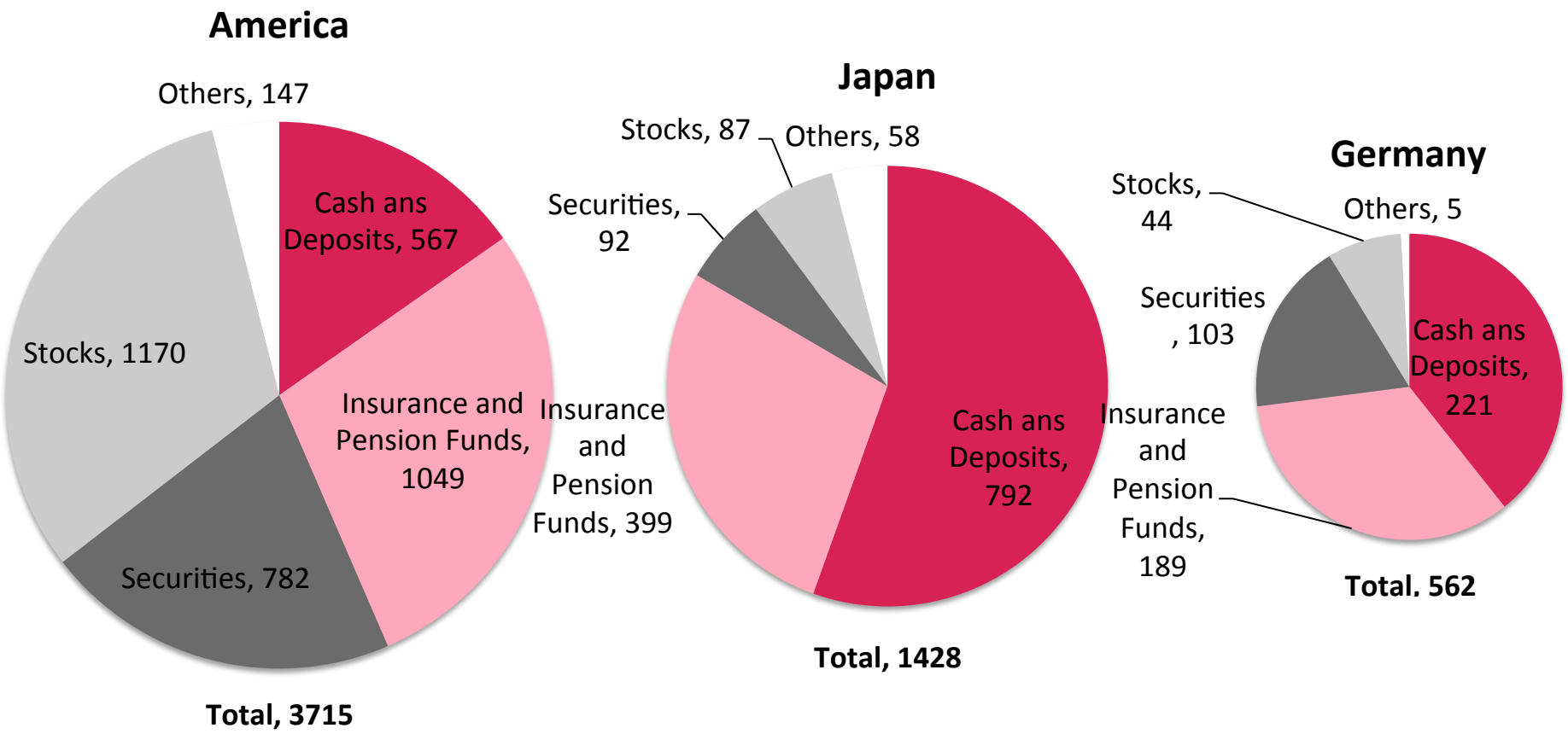

Figure 3, Revenue share of Financial Assets
Germany, UK, USA, France and Japan

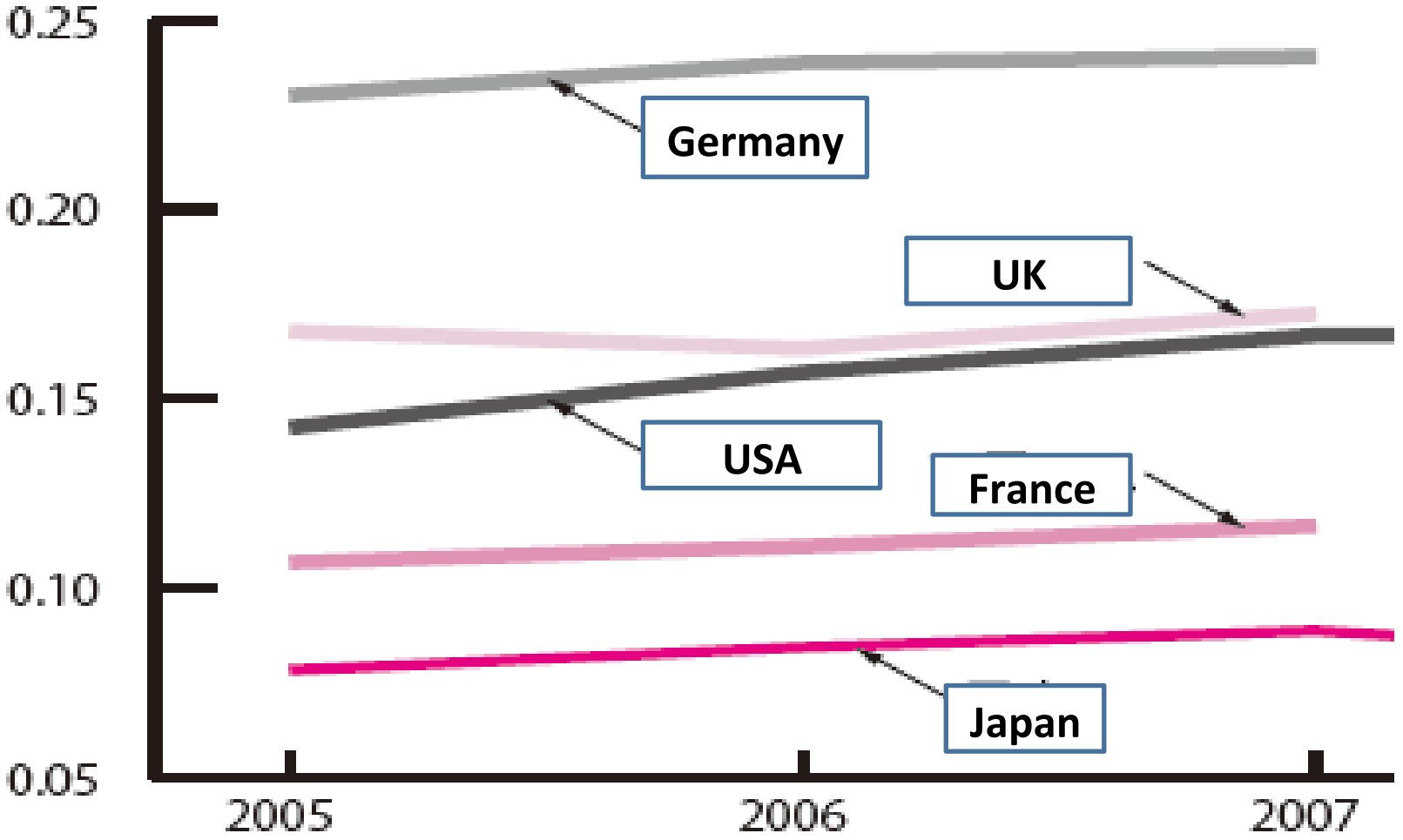

Figure 5, Households' Savings Rate
Korea, Italy, Japan, Germany, France and USA