

Current State and Future of Japanese Economy

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Talking Points

I. How will Brexit Effect Japan's Economy?

II. Understanding risk of China's bubble bursting: Optimistic in short-term, pessimistic in long-term

III. Main Economic Scenario for Japan: Moderate Recovery Seen

- Our main economic scenario sees a moderate recovery for Japan's economy, however, risk of a downturn due to overseas factors remains.
- Domestic economy: Positive factors include ① Growth in real wages, ② Low price of crude oil and improvement in terms of trade, and ③ The Abe administration's economic policies. However, danger of a downturn in the overseas economy remains, especially for China.

IV. Fruits of Abenomics and Challenges Remaining: Labor Market Reform Especially Key

- Fundamental Reform of Social Security System and Strengthening the Third Arrow (Growth Strategy)
- Distribution of Benefits of Abenomics: more detailed attention needs to be given to non-manufacturing industry, small business, residents of regional areas, and younger people of child-rearing age.

V. Risk Factors Facing Japanese Economy

- ① China's economic downturn
- ② Turmoil in emerging markets associated with U.S. exit strategy
- ③ Progression of risk-off behaviors (strengthening of yen / stock price lows) due to geopolitical risk
- ④ UK withdrawal from the EU and deleveraging by EU financial institutions

VI. Outlook for Financial Markets

Real Growth: 0.9% for FY16, 0.9% for FY17

Japan's Economic Outlook (latest figures available; y/y %)

	FY14	FY15	FY16 (E)	FY17 (E)	FY14		FY15		FY16		FY17	
					1H	2H	1H	2H	1H (E)	2H (E)	1H (E)	2H (E)
Real GDP	-0.9	0.8	0.9	0.9	-0.9	-1.0	1.3	0.4	0.5	1.3	1.2	0.5
Domestic demand*	-1.6	0.8	1.0	0.6	-1.0	-2.1	1.0	0.4	0.5	1.5	1.0	0.2
Foreign demand*	0.6	0.1	-0.1	0.2	0.3	1.3	0.3	-0.1	-0.0	-0.2	0.1	0.2
Private consumption	-2.9	-0.2	0.6	0.6	-2.6	-3.1	0.2	-0.6	0.3	0.8	0.5	0.6
Private housing investment	-11.7	2.4	4.9	-3.0	-7.6	-15.5	1.3	3.4	6.1	3.7	-4.4	-1.7
Private non-housing investment	0.1	2.1	0.1	1.1	1.0	-0.8	2.0	2.1	0.5	-0.3	1.0	1.3
Government consumption	0.1	1.6	1.9	1.7	-0.2	0.4	1.2	1.9	2.3	1.6	1.5	1.9
Public investment	-2.6	-2.7	7.9	-3.3	-1.5	-3.3	0.6	-5.0	-1.6	15.1	11.5	-12.8
Exports of goods and services	7.9	0.4	0.1	4.6	6.5	9.2	2.5	-1.7	-0.8	0.9	4.4	4.8
Imports of goods and services	3.4	-0.0	0.7	4.0	5.5	1.4	1.2	-1.2	-0.7	2.1	4.2	3.8
Nominal GDP	1.5	2.2	1.6	1.3	1.2	1.8	2.9	1.6	1.2	2.0	1.8	0.9
Private consumption	-0.8	-0.4	0.1	0.9	-0.1	-1.6	0.1	-0.9	-0.4	0.6	0.9	0.9
Private non-housing investment	1.5	2.5	-0.3	2.2	2.5	0.7	3.1	2.0	-0.5	-0.1	2.1	2.3
Index of All Industry Activity	-1.1	0.9	0.6	1.1	-0.9	-1.2	1.4	0.1	0.2	0.9	1.1	1.2
Index of Industrial Production	-0.5	-1.0	0.0	2.0	1.2	-2.0	-0.6	-2.2	-1.0	1.0	2.0	2.1
Index of Tertiary Industry Activity	-1.1	1.3	0.7	0.9	-1.4	-0.8	1.9	0.7	0.5	0.9	0.9	0.9
Consumer Price Index (excl. fresh foods)	2.8	-0.0	-0.1	0.8	3.2	2.4	0.0	-0.0	-0.4	0.1	0.7	0.9
Corporate Goods Price Index	2.8	-3.2	-2.2	0.6	4.2	1.4	-2.9	-3.6	-3.6	-0.7	0.7	0.5
GDP Deflator	2.4	1.4	0.7	0.5	2.2	2.7	1.6	1.2	0.7	0.7	0.6	0.3
Y/\$	109.9	120.1	103.2	101.5	103.0	116.8	121.8	118.4	104.8	101.5	101.5	101.5
Crude oil price (\$/bbl; WTI)	80.5	45.0	44.8	44.5	100.1	60.9	52.2	37.9	45.1	44.5	44.5	44.5

Source: Cabinet Office. E: DIR estimates. * contribution to real GDP growth; % pt.

Estimation of Brexit's Effects on Japan's Economy

Case (1) Repercussions in Same Class as Global Financial Crisis of 2008

		Rate of Decrease in TOPIX					
		0%	-5%	-10%	-15%	-20%	-25%
Yen-Dollar Rate of Increase	0%	-0.85%	-0.88%	-0.91%	-0.94%	-0.96%	-0.99%
	5%	-0.90%	-0.92%	-0.95%	-0.98%	-1.01%	-1.04%
	10%	-0.94%	-0.97%	-1.00%	-1.03%	-1.06%	-1.09%
	15%	-0.99%	-1.02%	-1.05%	-1.08%	-1.11%	-1.14%
	20%	-1.05%	-1.08%	-1.11%	-1.14%	-1.17%	-1.20%

Case (2) Using IMF Estimates

		Rate of Decrease in TOPIX					
		0%	-5%	-10%	-15%	-20%	-25%
Yen-Dollar Rate of Increase	0%	-0.07%	-0.09%	-0.12%	-0.15%	-0.18%	-0.21%
	5%	-0.12%	-0.15%	-0.17%	-0.20%	-0.23%	-0.26%
	10%	-0.17%	-0.20%	-0.23%	-0.26%	-0.28%	-0.31%
	15%	-0.23%	-0.26%	-0.28%	-0.31%	-0.34%	-0.37%
	20%	-0.29%	-0.32%	-0.35%	-0.38%	-0.41%	-0.44%

Source: Simulation using DIR short-term macro model.

Notes: 1) Figures show extent to which Japan's real GDP would be forced downwards in comparison to the benchmark (average values of four quarters after occurrence).

2) Case (1) Repercussions in the same class as the global financial crisis of 2008 (worldwide real GDP declines by -1.3%)

Case (2) Case using IMF estimates (worldwide real GDP declines by -0.04%).

3) Figures in red frames represent cases in which all financial markets experience the same extent of effects felt immediately after the beginning of the global financial crisis of 2008 (Oct-Dec period of 2008 recorded yen appreciation of 14% against the dollar and a 21% decline of the TOPIX index).

Effects of Brexit and Non-Performing Loans in Italy are Minor

Effect on World Economy via Financial Markets if UK Real Estate Prices Collapse due to Brexit

	Deleverage Ratio	Amount Changed in UK Bank Lending			Percentage Changed in UK GDP	Percentage Changed in World GDP	Percentage Changed in Japan's GDP
		Total	Domestic	Overseas			
		Bil.EUR	Bil.EUR	Bil.EUR	%	%	%
UK Real Estate Prices Plunge Due to Brexit (Outbreak of Deleveraging at UK Banks)	30%	-35	-19	-15	-0.25	-0.03	-0.02
	50%	-58	-32	-25	-0.41	-0.05	-0.04
	100%	-114	-64	-50	-0.81	-0.10	-0.07

Source: EBA, BOE, BIS; Compiled by DIR.

Note 1: Lending amount consists of the amount in foreign and domestic claims according to BIS consolidated banking statistics.

Note 2: This is a hypothetical case in which it is assumed that a collapse in real estate prices along the same lines as the global economic crisis of 2008 occurs in the UK as a result of Brexit.

Estimated values show the result of deleveraging which occurs after the crisis according to our assumptions as a means of improving the equity ratio.

Effect on World Economy via Financial Markets if Large-Scale Disposal of Non-Performing Loans Occurs in Italy

	Deleverage Ratio	Amount Changed in Italian Bank Lending			Percentage Changed in Italian GDP	Percentage Changed in World GDP	Percentage Changed in Japan's GDP
		Total	Domestic	Overseas			
		Bil.EUR	Bil.EUR	Bil.EUR	%	%	%
Italian Real Estate Prices Plunge Due to Disposal of Non-Performing Loans (Outbreak of Deleveraging at Italian Banks)	30%	-73	-56	-17	-0.64	-0.04	-0.03
	50%	-117	-90	-27	-1.02	-0.07	-0.05
	100%	-224	-172	-52	-1.95	-0.13	-0.09

Source: EBA, BOE, BIS; Compiled by DIR.

Note 1: Lending amount consists of the amount in foreign claims and domestic debt according to BIS consolidated banking statistics.

Note 2: This chart assumes that disposal of non-performing loans takes place in Italy, causing damage to net worth.

Estimated values show the result of deleveraging which occurs after the crisis according to our assumptions as a means of improving the CET 1 ratio so that it will reach the level of other countries.

A Financial Crisis in the EU Could Cause a Decline of 2.7% in World GDP and 1.9% in Japan's GDP

Effects of Overload Experienced by EU Financial Institutions on World Economy Via Financial Markets

		Deleverage Ratio	Amount Changed in Lending			Percentage Changed in World GDP %	Percentage Changed in Japan's GDP %
			Total	Domestic	Overseas		
			Bil.EUR	Bil.EUR	Bil.EUR		
Case in which EU Financial Institutions Experience Overload (Adverse Scenario According to EBA Stress Test)	Scenario ①	100%	-3,453	-2,310	-1,142	-2.7	-1.9
	Equity Ratio Recovers to End-2015 Level	50%	-1,882	-1,259	-623	-1.5	-1.0
		30%	-1,224	-818	-405	-1.0	-0.7
	Scenario ②	100%	-2,034	-1,361	-674	-1.6	-1.1
	Equity Ratio Improves	50%	-1,068	-714	-354	-0.8	-0.6
	Half as Much as in Scenario ①	30%	-671	-448	-222	-0.5	-0.4
	Scenario ③	100%	-1,118	-747	-370	-0.9	-0.6
	Equity Ratio Improves	50%	-573	-383	-190	-0.4	-0.3
	a Quarter as Much as in Scenario ①	30%	-353	-236	-117	-0.3	-0.2

Source: EBA, BIS; Compiled by DIR.

Note 1: Lending amount is the amount in foreign and domestic claims according to BIS consolidated banking statistics.

Note 2: EBA stress test 2016 lists following stress items: ① Unwinding of risk premium expansion on global capital markets,

- ② Earnings deteriorate in banking and insurance industry due to continuation of low-growth, low-interest environment,
- ③ Amplification of concerns regarding debts held by public institutions and non-financial private sector corporations,
- ④ Problem spreads to rapidly expanding shadow banking sector.

Note 3: Scenario ① assumes adverse scenario according to EBA stress test 2016 in which the equity ratio as of end FY2018 improves to around the level seen around end 2015.

Scenario ② assumes that CET 1 ratio improves about half as much as in Scenario ①, and Scenario ③ assumes that it improves about a quarter as much.

Environment Surrounding China's Economy (image)

© Financial Excess: **1000** tril yen ?

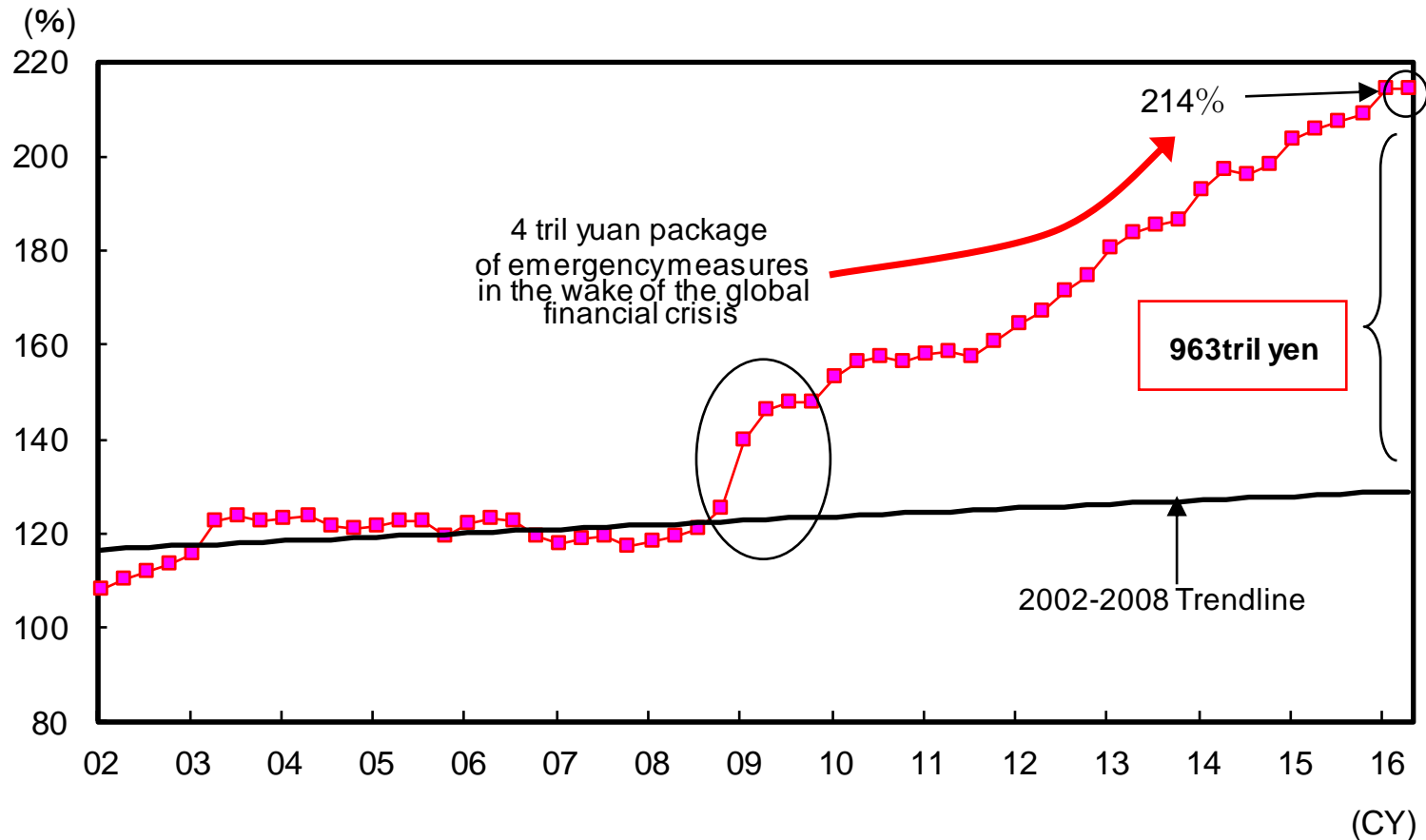
© Capital Stock Excess: **550** tril yen?



© Fiscal Stimulus Margin: **600-800**
tril yen ?

China Has 1000 Tril Yen in Excessive Lending

China's Total Social Financing (% of GDP)

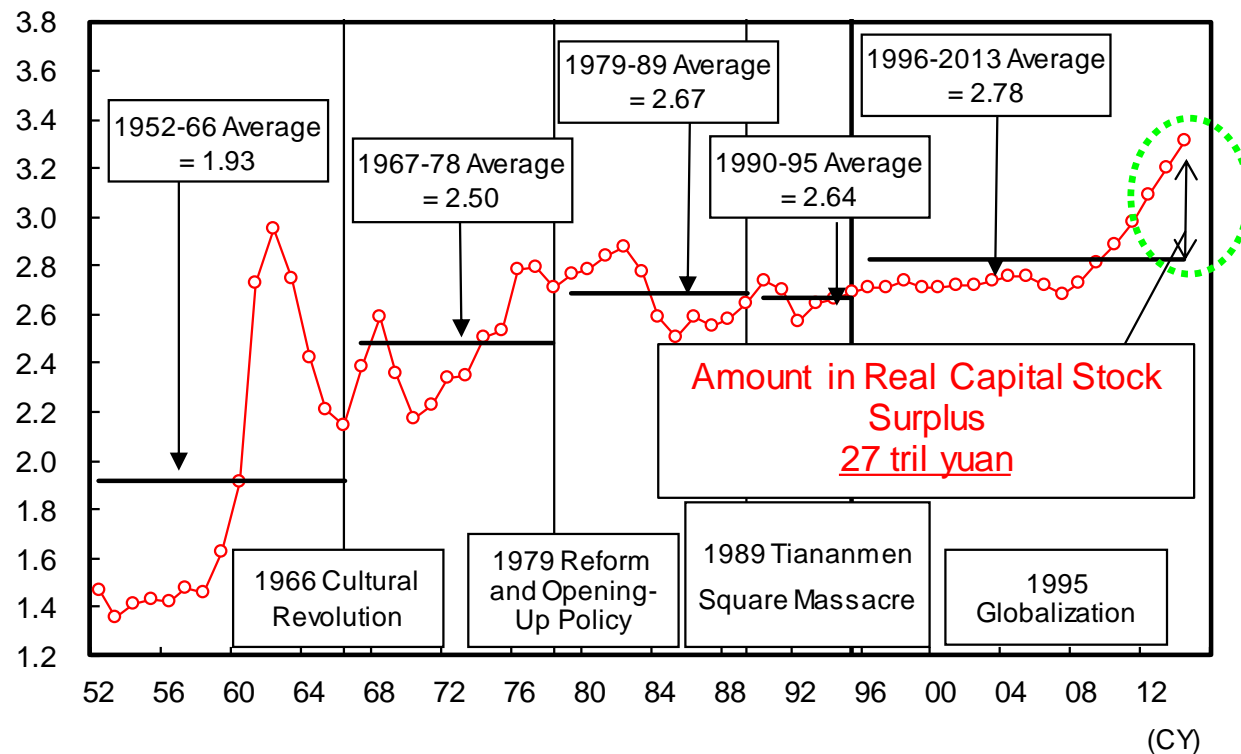


Source: People's Bank of China, National Bureau of Statistics of China; compiled by DIR.

Assumption: Outstanding balance of total social financing as of end-Dec 2001 to be 1.1 times bank lending.

China Has Over 550 Tril Yen in Excess Capital Stock

Changes in China's Capital Coefficient



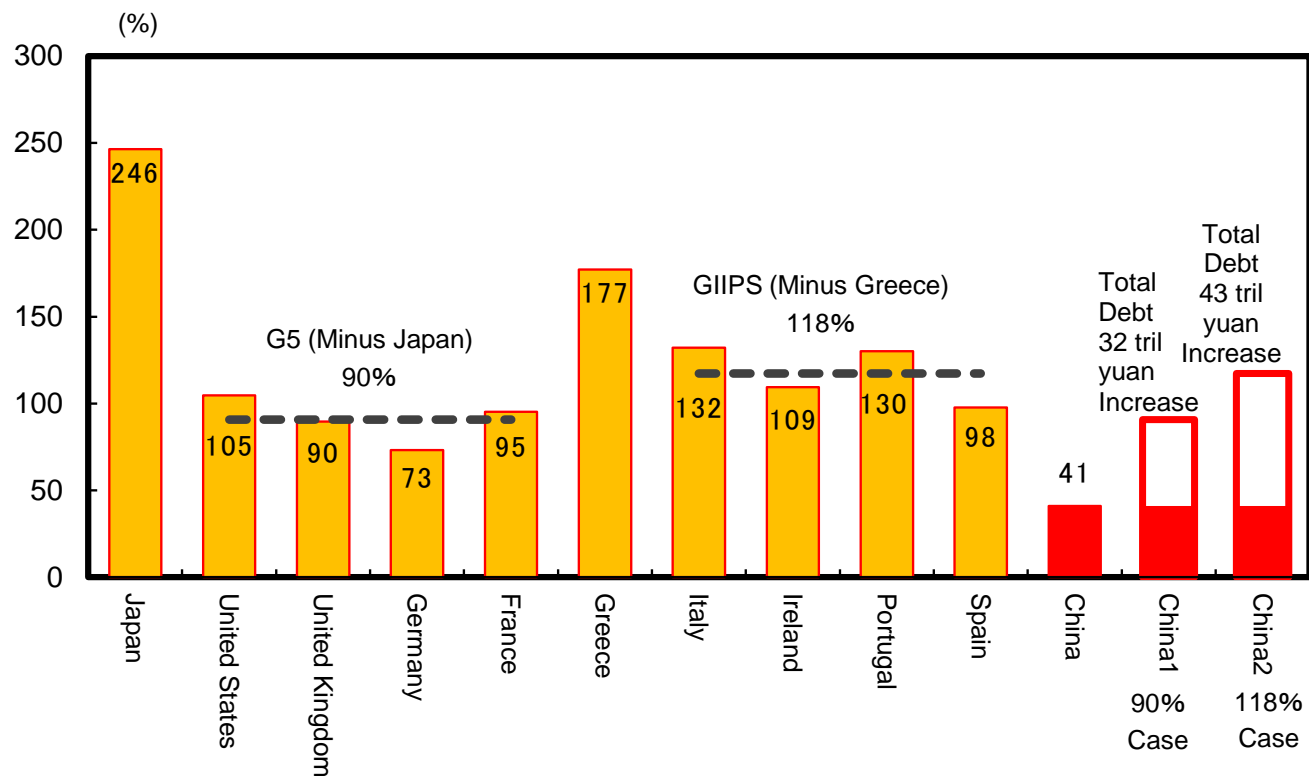
Source: National Bureau of Statistics of China, CEIC, Haver Analytics, World Bank; compiled by DIR.

Notes: 1) Capital coefficient = real capital stock / real GDP

2) Figures from the year 2010 are used for both real capital stock and real GDP.

China Has a Fiscal Stimulus Margin of 600-800 Tril Yen

General Government Debt-to-GDP Ratio (2014)



Source: IMF; compiled by DIR.

Economic Scenarios for China

Outlook for China's GDP Growth Rate

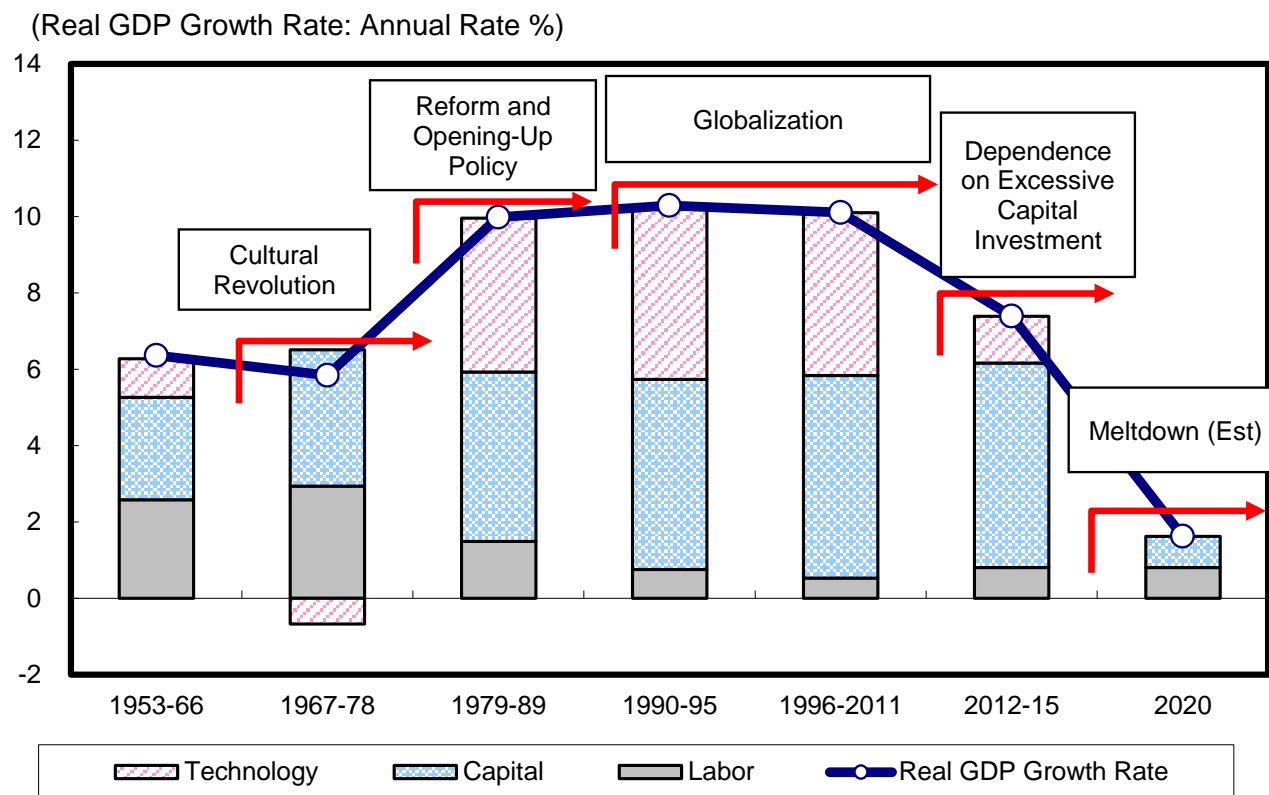
(Y/y, %)

	2015	2016	2017	2018	2019	2020
① Standard Scenario	7.0	6.8	6.6	6.5	6.5	6.3
② Capital Stock Adjustment Scenario	6.8	2.8	0.7	0.9	1.2	3.2
③ Meltdown Scenario	6.8	0.0	-4.4	-8.4	-3.6	-1.7

Source : Compiled by D IR

③ Meltdown Scenario: Potential Growth Rate Falls to 1.6%

China: Factors Contributing to Real GDP Growth (annualized)

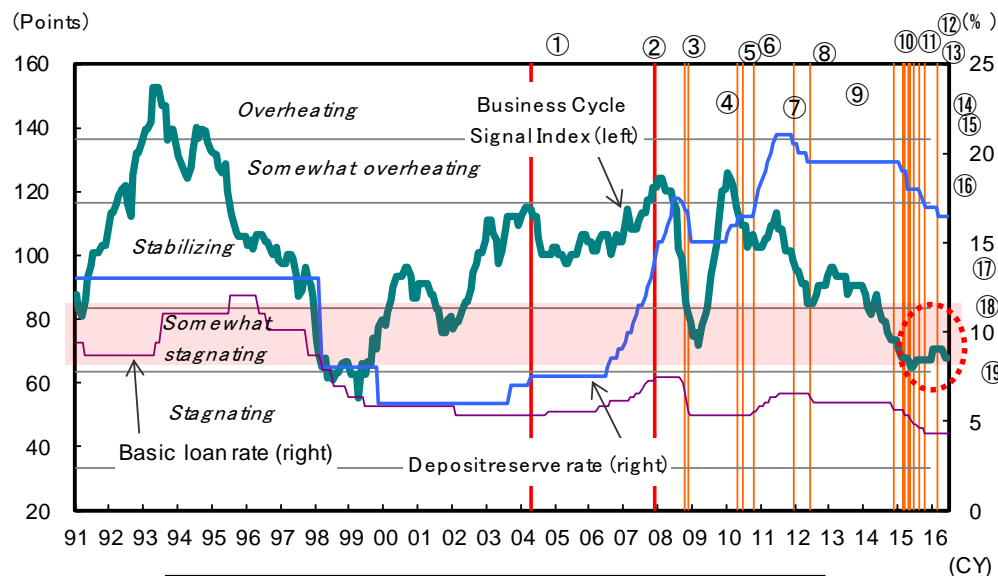


Source: CEIC, World Bank; compiled by DIR.

Note: Major events: 1966 – The Cultural Revolution, 1978 - Reform and Opening-Up Policy, 1989 – Tiananmen Square Massacre

Can Policy Measures Prop Up China's Economy in the Short-Term?

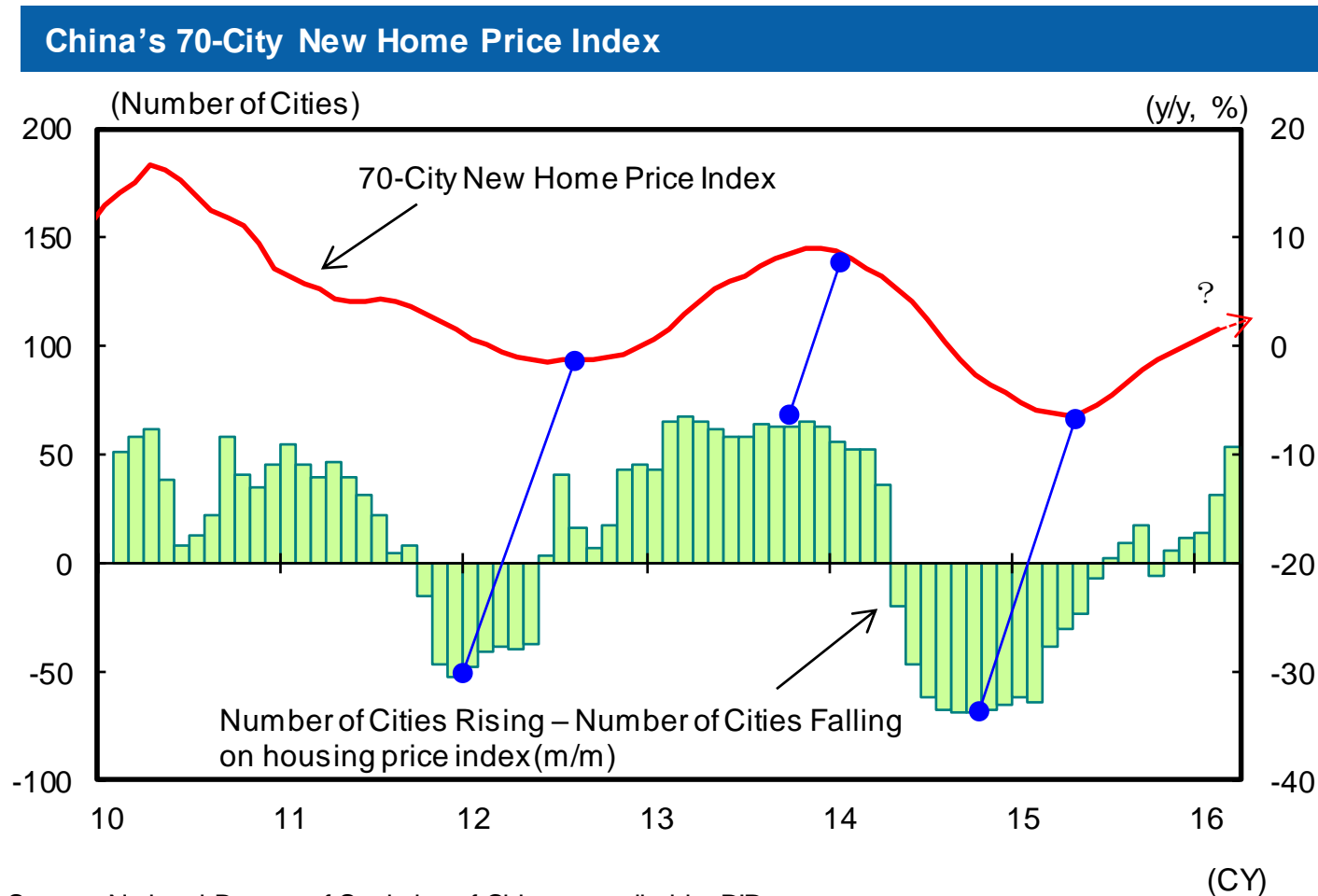
China: Business Cycle Signal Index



1. Apr 2004: Restrictions on aggregate loans strengthened
2. Oct 2007: Restrictions on aggregate loans strengthened
3. Oct 2008: Restrictions on aggregate loans eased
4. Nov 2008: Stimulus package of 4 tril yuan announced
5. Apr 2010: Real estate regulations strengthened
6. Jun 2010: More flexible regime for control of yuan exchange rate
7. Oct 2010-Jul 2011: Period of loan rate hikes
8. From Dec 2011: A series of deposit reserve rate lowering moves began
9. From Jun 2012: A series of loan rate cuts began
10. Nov 2014: Loan rate cuts
11. Feb 2015: A series of deposit reserve rate lowering moves began
12. Mar 2015: Loan rate cuts
13. Apr 2015: A series of deposit reserve rate lowering moves began
14. May 2015: Loan rate cuts
15. Jun 2015: Loan rate cuts
16. Jul 2015: Price keeping operation
17. Aug 2015: Reserve deposit rate cut, interest rates lowered
18. Oct 2015: Reserve deposit rate cut, interest rates lowered
19. Feb 2016: Reserve deposit rate cut,

Source: National Bureau of Statistics of China, People's Bank of China, CEIC Data; compiled by DIR.

China's Housing Prices Showing Signs of Bottoming Out

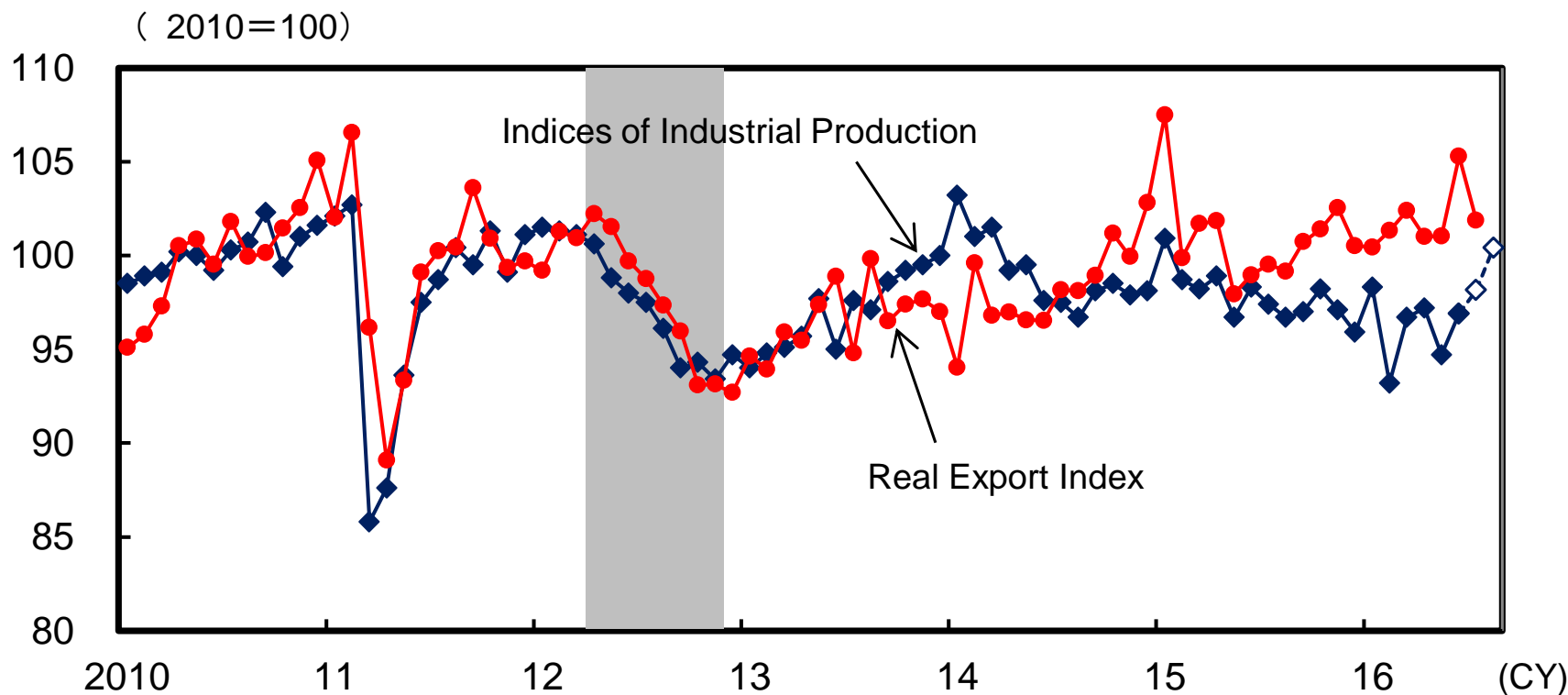


Source: National Bureau of Statistics of China; compiled by DIR.

Note: The 70-City New Home Price Index is the simple average value of home prices in 70 cities.

Sign of Recovery in Production

Real Exports and Industrial Production

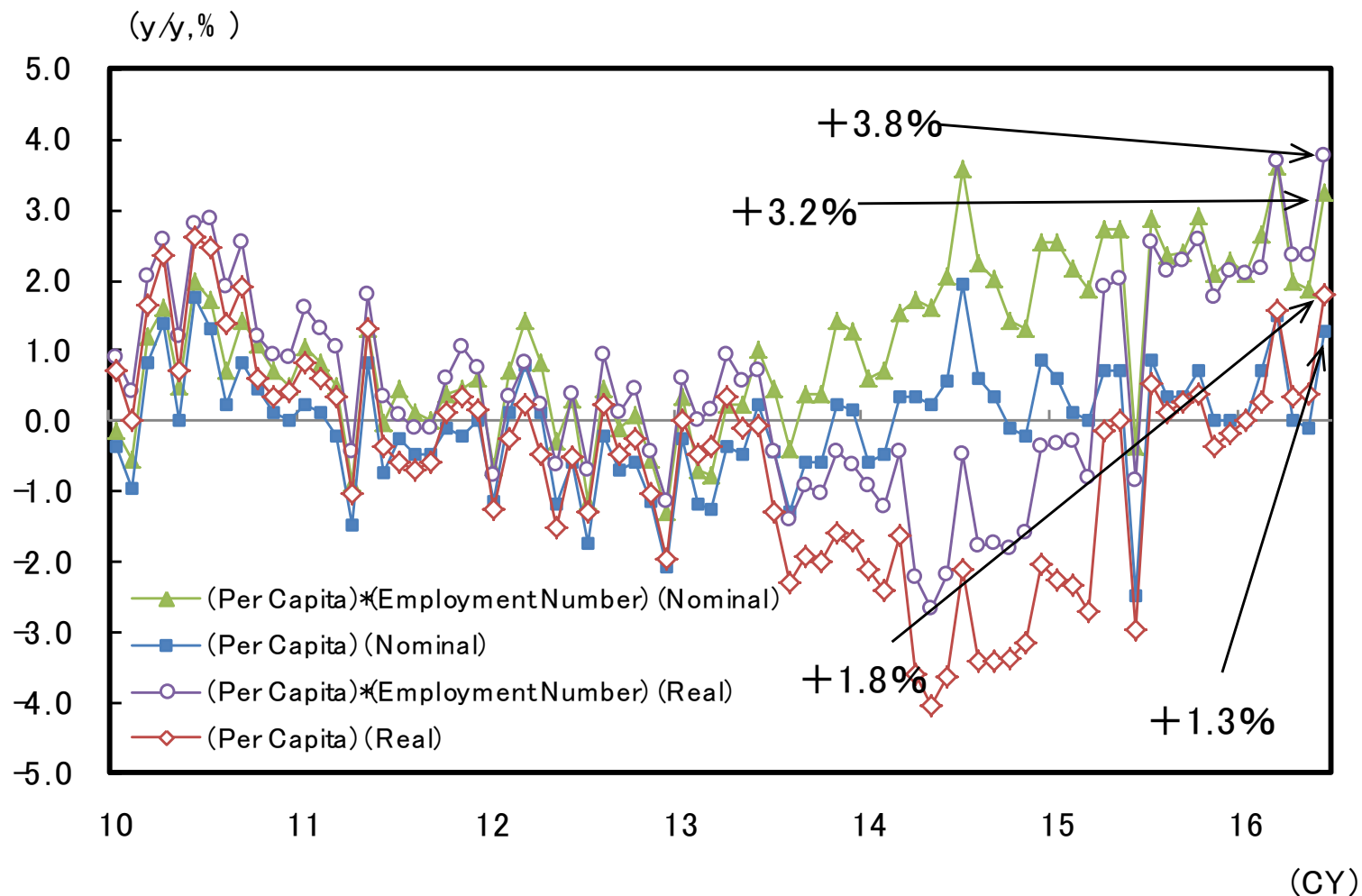


Note: Shaded areas represent periods of economic decline. Most recent two months of industrial production uses values from METI's production forecast survey.

Source: BOJ and METI; compiled by DIR.

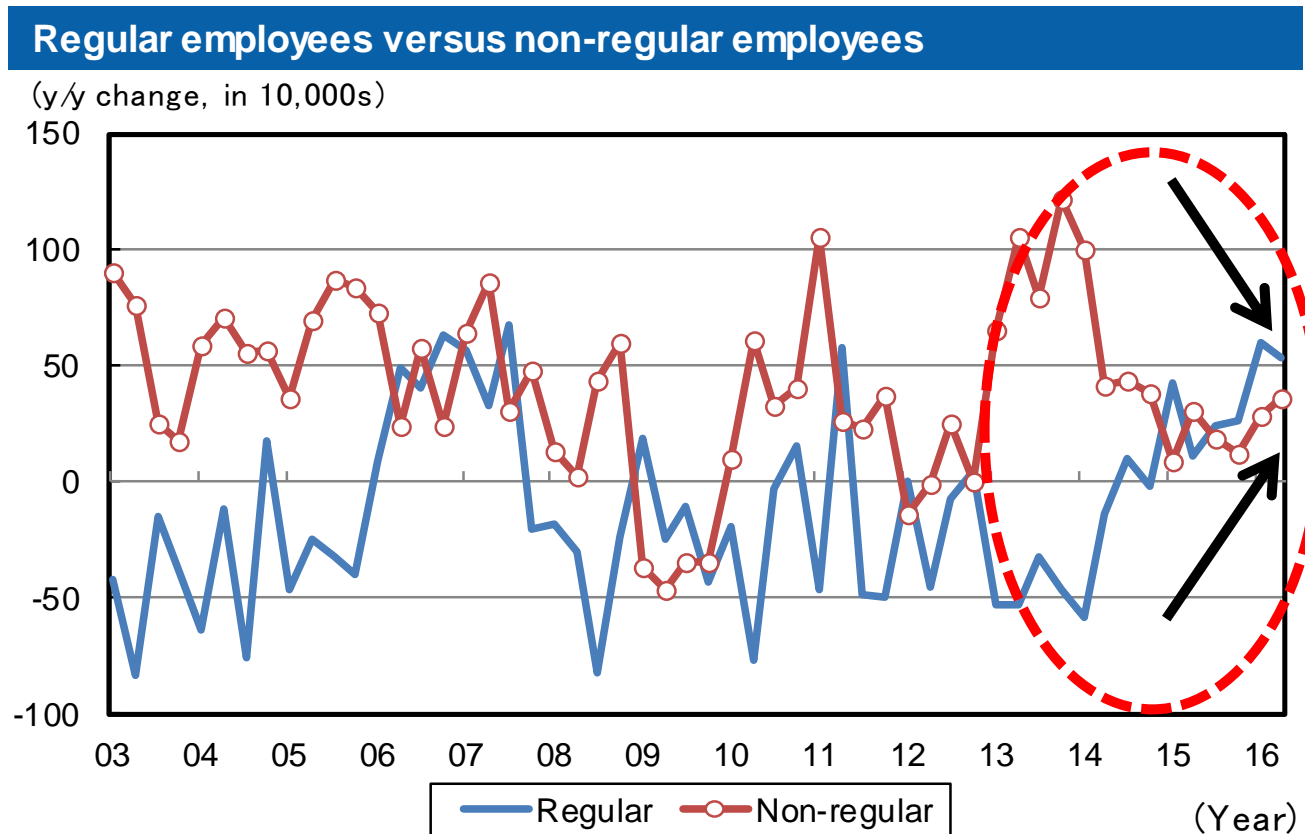
Positive Factor ①: Wages making a comeback

Wages: Macro vs Per Capita, Nominal vs Real



Source: Ministry of Health, Labour and Welfare; compiled by DIR.

Regular employees versus non-regular employees



Source: Compiled by DIR from Ministry of Internal Affairs and Communications statistics.

Positive Factor ②: Low Price of Crude Oil Providing Japan's Economy with Underlying Support

Effects of Fluctuations in Crude Oil Price on Japan's Economy

		Real GDP %	Personal Consumption %	Housing Investment %	Capital Expenditure %	Exports %	Imports %	Nominal GDP %	GDP Deflator %	GDP Growth Rate %
Difference from Scenario in Which Crude Oil Price Remains High	FY2015	0.69	1.11	2.64	2.88	0.47	3.51	3.16	2.45	0.49
	FY2016	0.85	1.28	2.98	4.04	0.66	4.43	4.23	3.35	0.16
	FY2017	0.90	1.32	3.35	4.66	0.73	4.78	4.77	3.84	0.05
Difference from Previous Estimate's Assumptions	FY2015	-0.34	0.59	1.32	1.15	0.24	1.72	1.22	0.88	0.27
	FY2016	0.51	0.84	1.72	2.07	0.42	2.66	2.09	1.57	0.18
	FY2017	0.56	0.88	1.96	2.57	0.49	2.97	2.50	1.93	0.05

		Current Account Balance / Nominal GDP %pt	Import Price %	Export Price %	CGPI %	Core CPI %	Industrial Production %	Tertiary Industry Activity Index %	All Industry Activity Index %
Difference from Scenario in Which Crude Oil Price Remains High	FY2015	2.87	-19.21	-2.27	-3.18	-1.30	1.37	0.71	0.79
	FY2016	3.90	-24.17	-3.11	-4.39	-1.65	1.75	0.93	1.01
	FY2017	4.38	-25.81	-3.45	-4.95	-1.70	1.91	1.04	1.13
Difference from Previous Estimate's Assumptions	FY2015	1.13	-9.07	-1.14	-1.57	-0.72	0.65	0.32	0.37
	FY2016	1.97	-14.55	-1.99	-2.76	-1.11	1.02	0.52	0.58
	FY2017	2.35	-16.41	-2.34	-3.29	-1.20	1.15	0.61	0.67

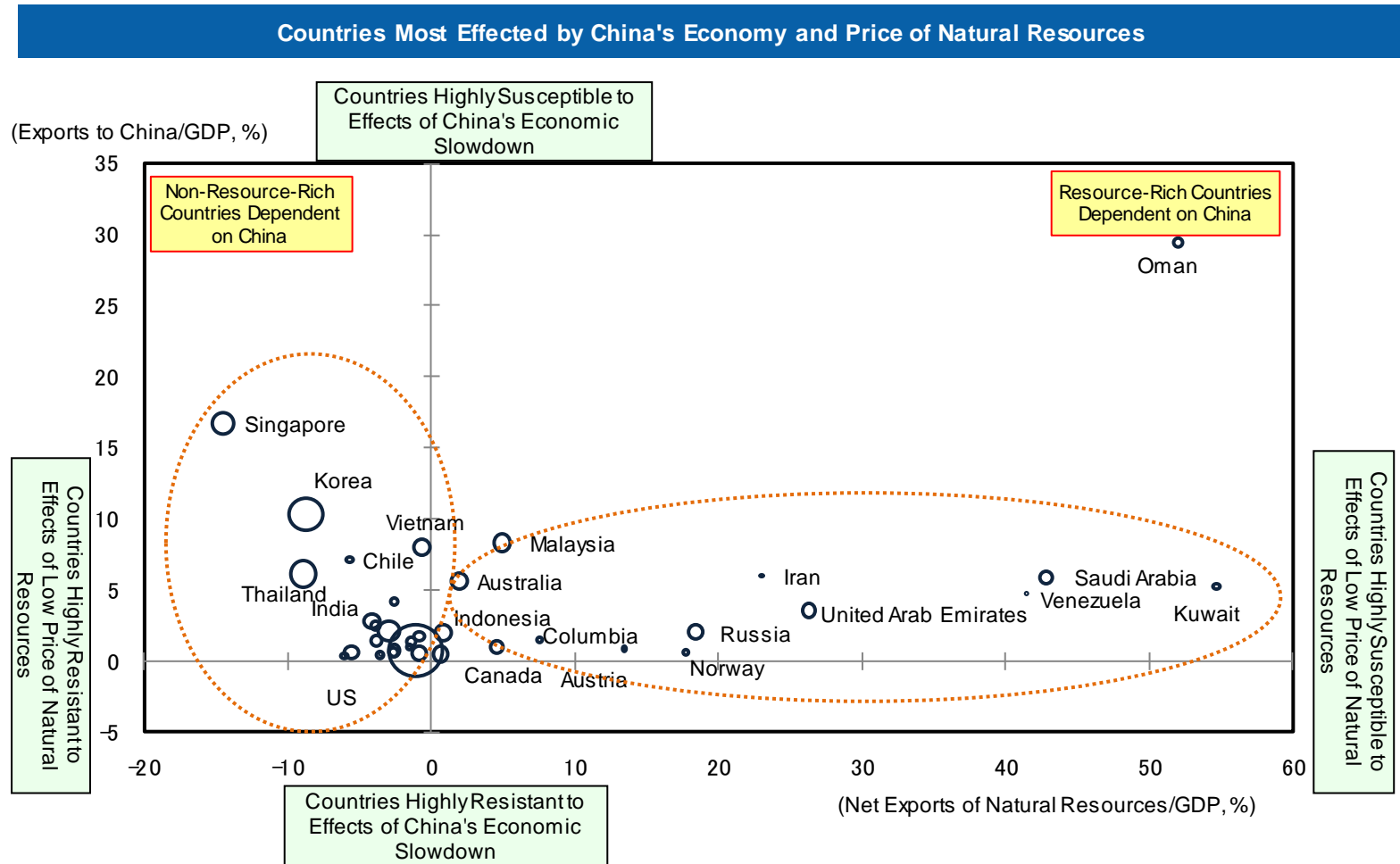
Source: Compiled by DIR.

Notes: 1) Simulation run using the DIR short-term macro model. Values show rate of deviation from normal solution.

2) WTI = Difference from \$105 Scenario assumes most recent WTI peak of June 2014 and beyond to be flat at \$105/bbl.

WTI = Difference from \$70 Scenario assumes the 2014 and 2015 Jan-Mar period and beyond to be flat at \$70/bbl.

Japan's Major Trade Partners Mostly Non-Resource-Rich Countries



Source: IMF, UN, Ministry of Finance; compiled by DIR.

Note: Net exports of natural resources from Saudi Arabia and Venezuela are from the year 2013. Net exports of natural resources from Iran are from the year 2011. All the rest are from 2014.

Positive Factor ③: Economic Measures Expected to Increase FY2016 GDP by 0.2%

Economic Measures for Realization of Investment in Future and Extent of Budget

(Tril Yen)

	Project Scale	Fiscal Measures	National & Regional Budgets	Fiscal Investment & Loans
I. Realization & Acceleration of Promoting Dynamic Engagement of All Citizens	3.5	3.4	2.5	0.9
II. Developing a 21st Century Infrastructure	10.7	6.2	1.7	4.4
III. Handling Risks Such as Uncertainty Associated with UK Exit from EU, and Support for Small & Medium Sized Enterprises and Local Regions	10.9	1.3	0.6	0.7
IV. Recovery from damage due to the Kumamoto & Great East Japan Earthquakes, Safety & Security, and Strengthening of Disaster Preparedness & Emergency Response	3	2.7	2.7	0
Total	28.1	13.5	7.5	6

Source: Cabinet Office; Compiled by DIR.

Note: Amount yet to be determined, since supplementary budget has not yet taken shape.

Outlook for FY2016 Supplementary Budget and Boost to GDP

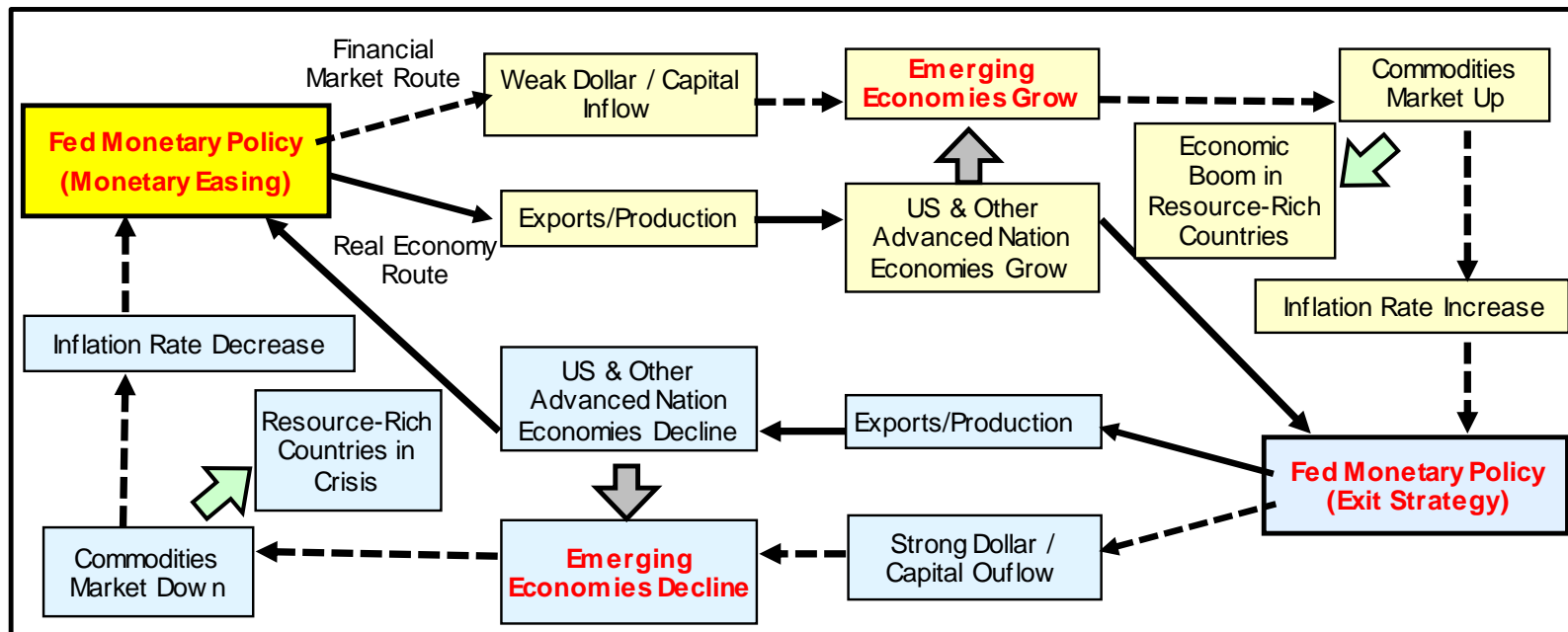
	FY 2016 Supplementary Budget	Extent of Boost to GDP
I. Realization & Acceleration of Promoting Dynamic Engagement of All Citizens	0.5 Tril Yen	0.0%
II. Developing a 21st Century Infrastructure	1.5 Tril Yen	0.1%
III. Handling Risks Such as Uncertainty Associated with UK Exit from EU, and Support for Small & Medium Sized Enterprises and Local Regions	0.5 Tril Yen	0.0%
IV. Recovery from damage due to the Kumamoto & Great East Japan Earthquakes, Safety & Security, and Strengthening of Disaster Preparedness & Emergency Response	2 Tril Yen	0.1%
Total	4.5 Tril Yen	0.2%

Source: Cabinet Office; Compiled by DIR.

Note: Amount yet to be determined, since supplementary budget has not yet taken shape.

World Economic Cycle (1)

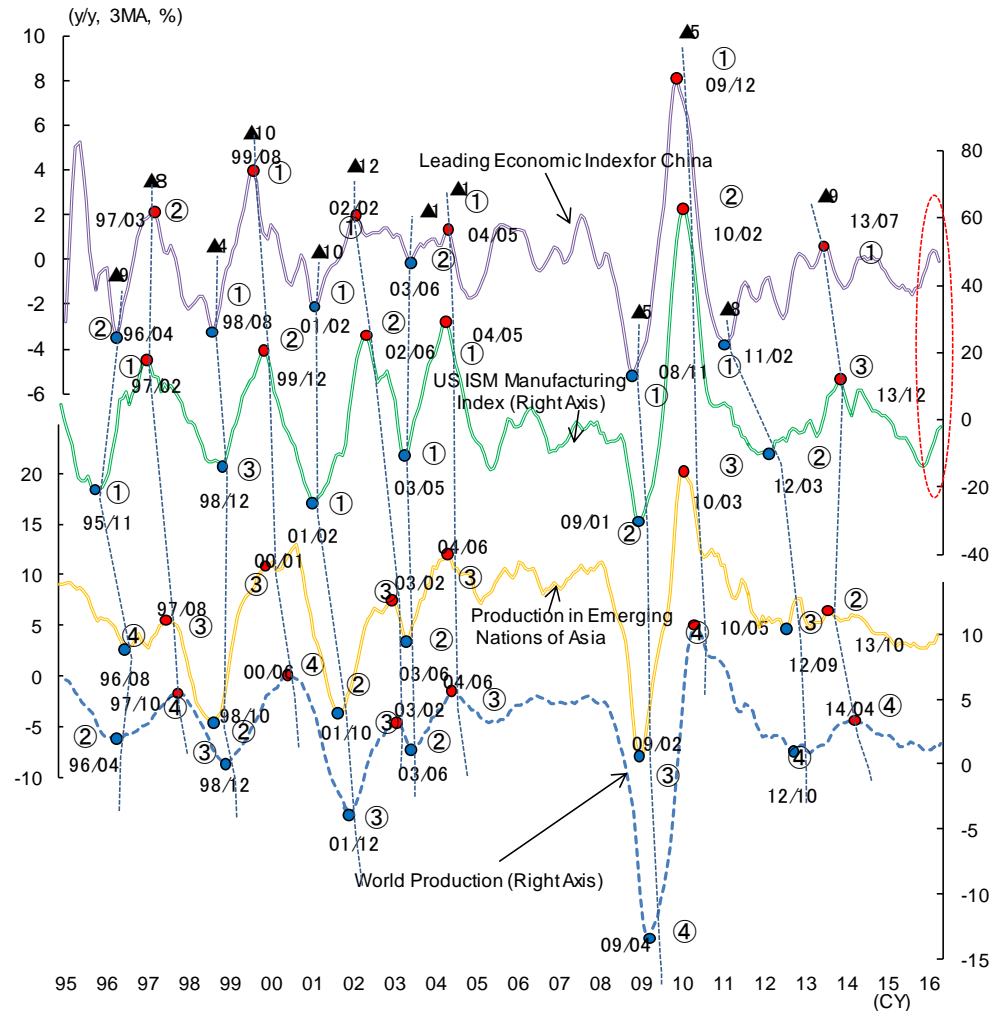
World Economic Cycle with Focus on the Fed



Source: Produced by DIR.

World Economic Cycle (2)

Leading Indices for World Production: Leading Economic Index for China, and the ISM



Source: Haver Analytics; compiled by DIR.

The Seven Sorrows of Japanese Corporations

- ① Yen Appreciation
 - ② Behind in Free Trade
 - ③ Environmental Regulation
 - ④ Labor Regulations
 - ⑤ High Corporate Tax Rate
 - ⑥ Electrical Power Shortage
and Increasing Price of Electrical Power
 - ⑦ Deteriorating Relationship with China
- Set of “five fetters”

The Original Three Arrows of Abenomics

(1) Bold monetary policy: already yielding results:

(2) Flexible fiscal policy: uncertainty remains:

Issue: maintaining fiscal discipline

—Strengthening resilience of nation's infrastructure: risk of public spending bloating under guise of protecting lives and assets of citizens

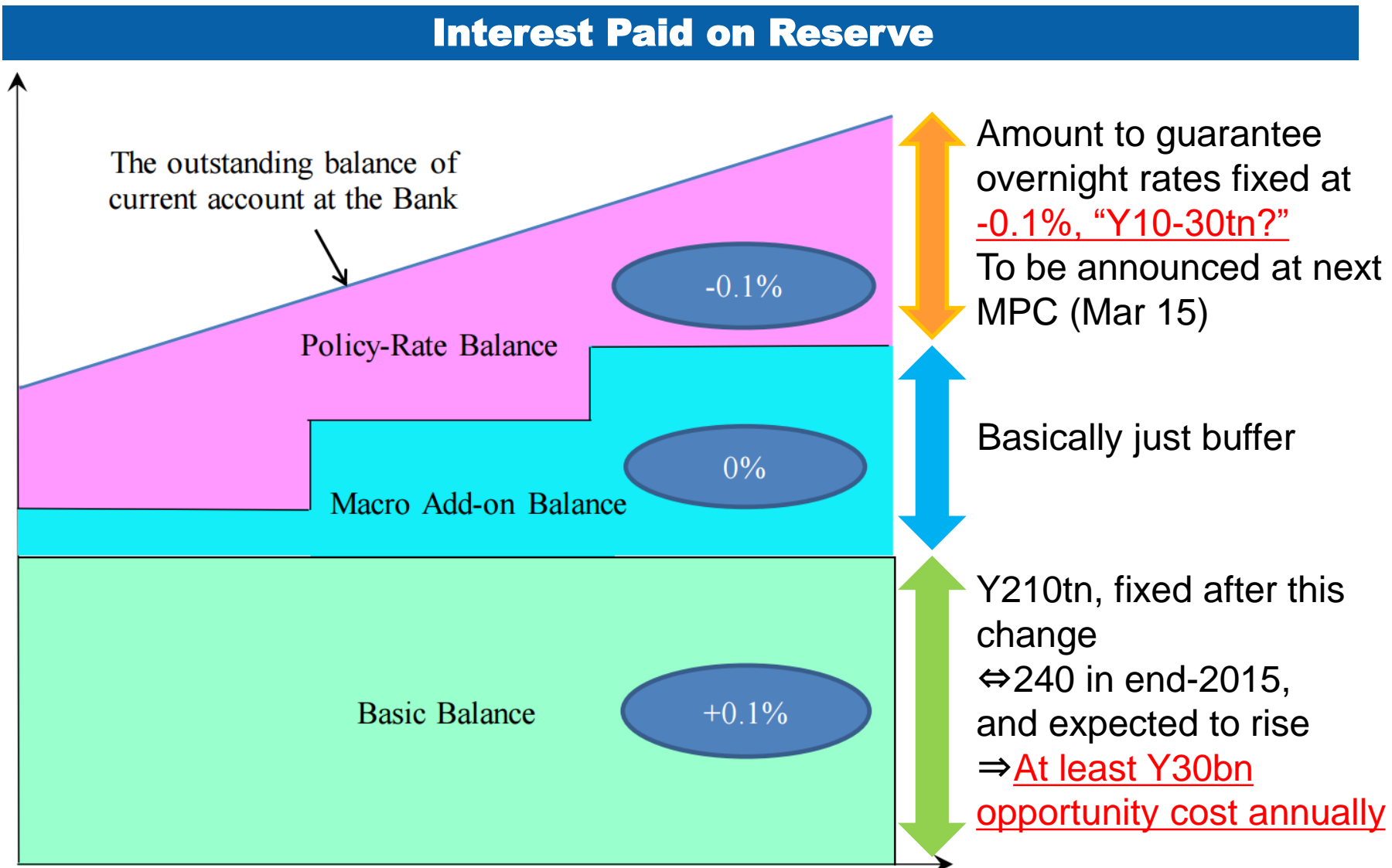
—Risk of expanding budget deficit leading to triple weakness in form of plunge in JGBs (rise in long-term interest rate), weaker yen, and lower stock prices

(3) Growth strategy to spur investment by private sector: uncertainty remains

Issue: improving/restructuring economic structure over medium/long term

—Need to work toward easing of “bedrock regulations” and lowering of effective corporate tax rate

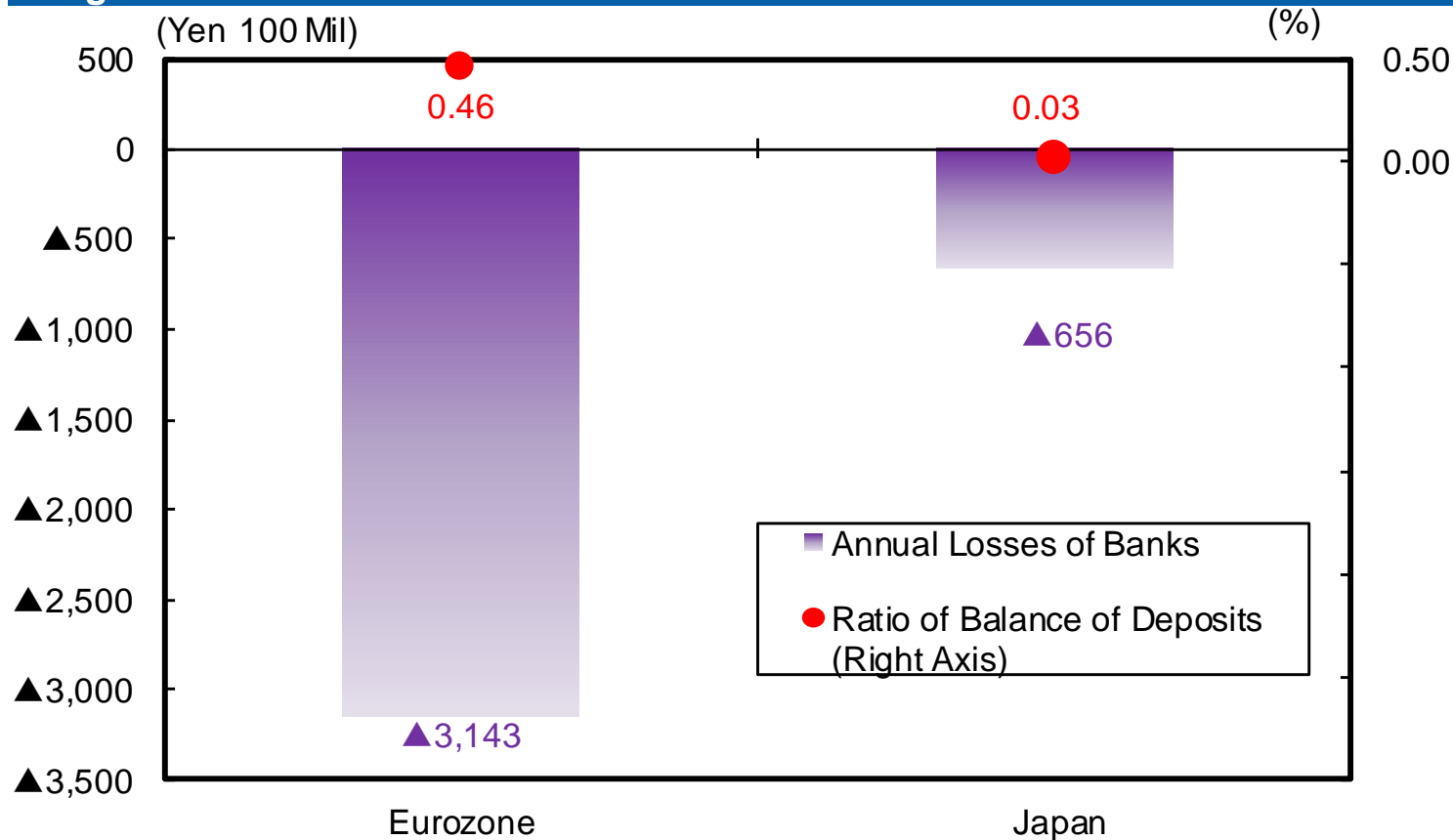
Introduction of Negative Interest



Source: BOJ "Quantitative and Qualitative Monetary Easing (QQE) with a Negative Interest Rate" (Jan 29, 2016), DIR

Japan: Banks Suffer Few Losses Due to Negative Interest Rate

Estimated Annual Losses of Banks from Deposits in Central Bank with Negative Interest Rate



Japan: Effects of Negative Interest

Effects of Negative Interest on Financial Institutions, Corporations, and Households

	Financial Institutions	Corporations	Households
Estimated Annual Losses of Financial Institutions from Deposits in Central Bank (Y100 Mil)			
	-656	-	-
Bank Gains on Sale of Government Bonds to BOJ (Y100 Mil)			
	25,408	-	-
Decline in Interest on Savings (Y100 Mil)			
	1,212	-555	-675
Decline in Lending Rate and Interest on Housing Loans (Y100 Mil)			
	-11,552	4,107	8,419
Overall Effect (Y100 Mil)			
	14,412	3,553	7,761

Note 1:

Financial institution gains on sale of government bonds to BOJ shown with change in price in comparison to what it would have been if negative interest had not been introduced. Estimates are for figures with one year of influence from new rate. Estimate results are hypothetical.

Note 2:

Calculated value of effects during first year. Calculation results are hypothetical.

Note 3:

Effects of decline in interest on savings, interest on loans, and interest on housing Loans: Calculation of extent of change since January 28 in comparison to balance as of end March, 2016.

Assumptions:

Interest on Savings Corporations -0.03%, Households -0.02%, Lending Rate -0.15%

Interest on Housing Loans: Variable Interest -0.79%, Variable and Fixed Combination -0.34%

Source: BOJ etc.; compiled by DIR.

■ Mid to Long-Term Challenges for Abenomics

1. Failure to maintain fiscal discipline could invite simultaneous risks of a weak bond market, weak yen, and weak stock market (the *Triple Weaknesses*).
2. Medium to long-term improvements in economic health and structural reform insufficient?
3. Room for improvement in household income?

Why Are Wages Stagnant?

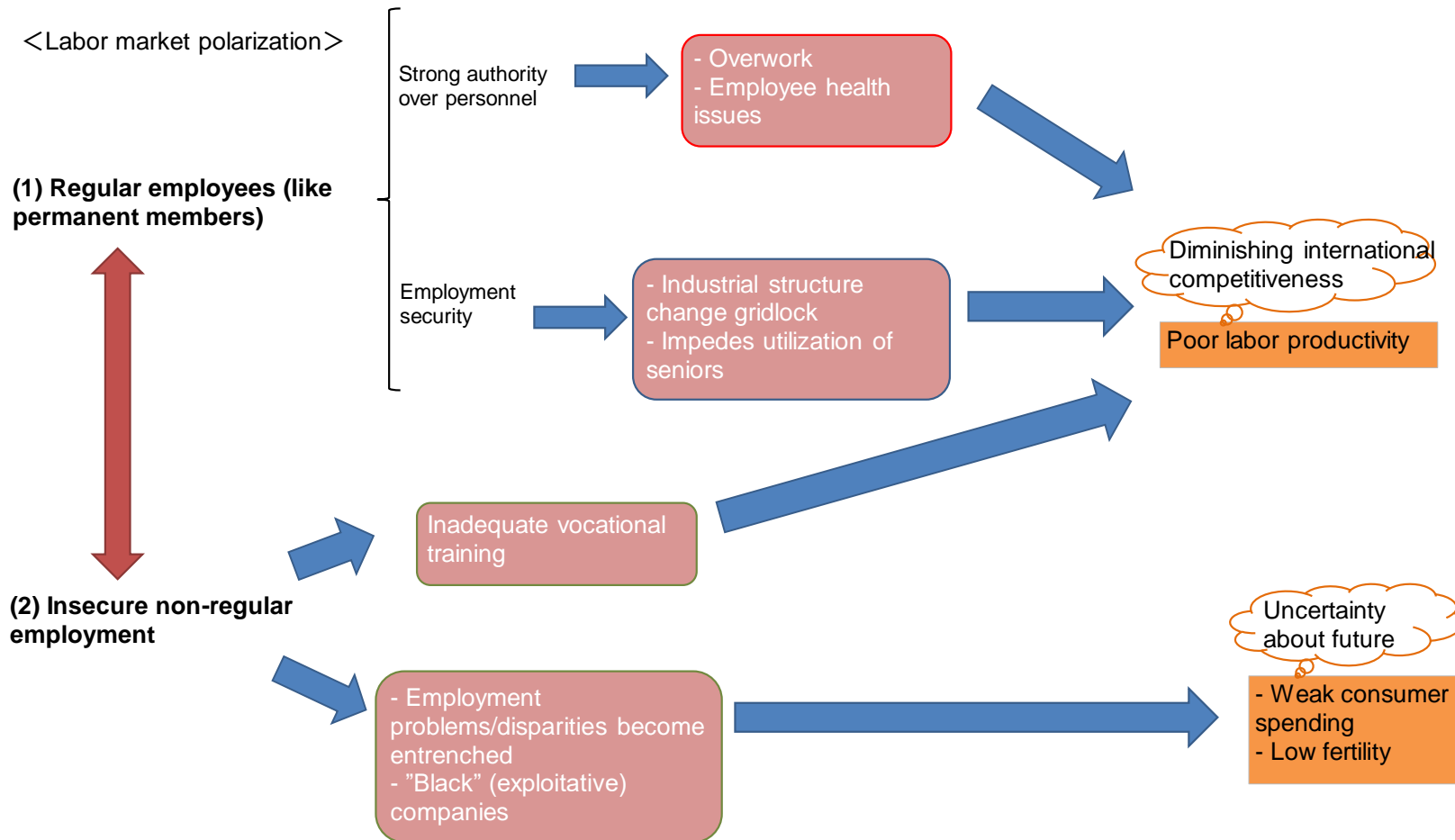
Breakdown of Real Hourly Wage

Annual growth (CY00-09 avg; %)		Japan	US	Germany
Real hourly wages		-0.5	1.3	0.2
	Labor productivity	0.7	2.0	1.2
	Corporate Competitivity	-1.0	-0.3	-0.7
	Labor's share	-0.3	-0.4	-0.3

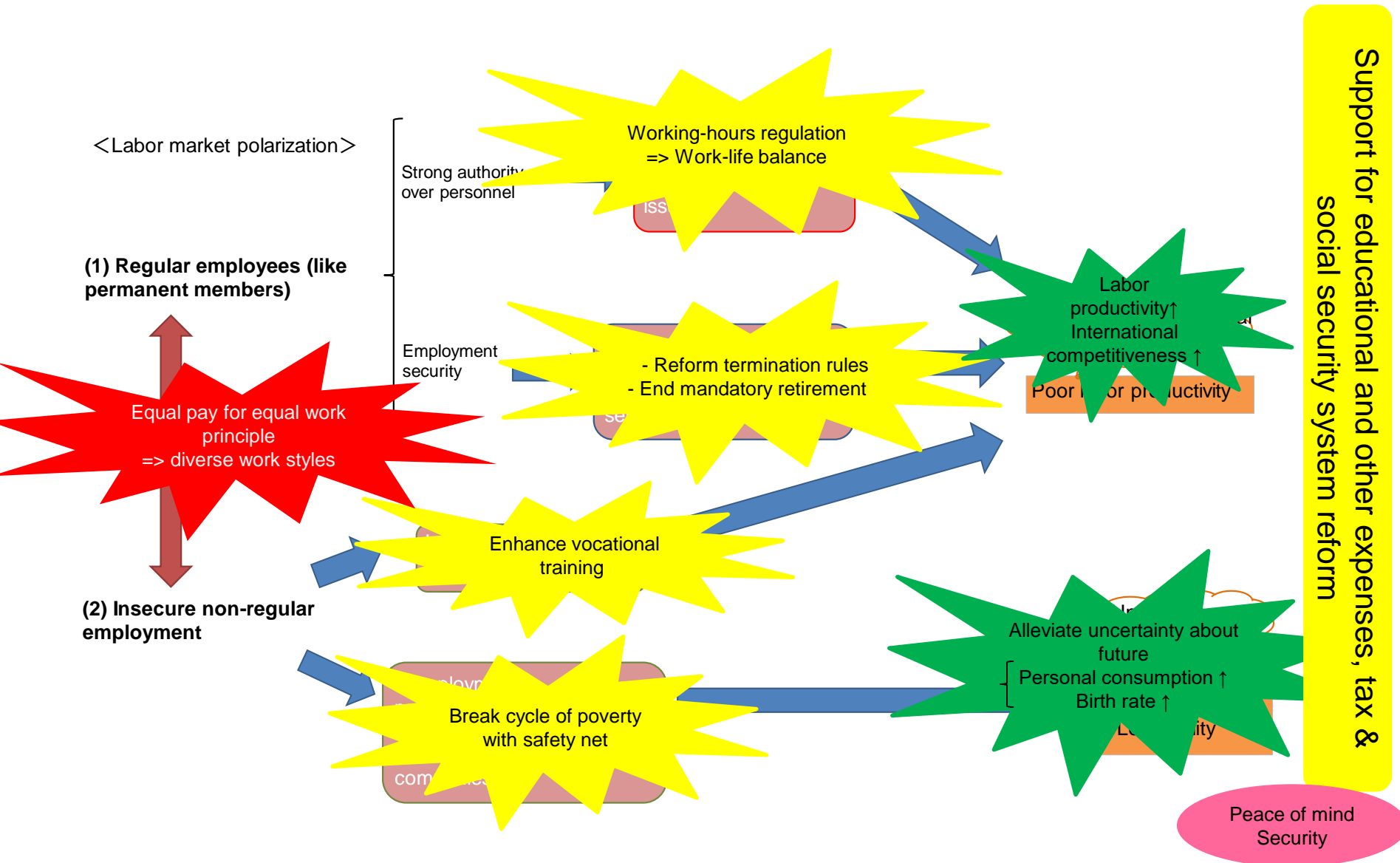
Source: Cabinet Office, US Bureau of Economic Analysis, Bundesbank, EU KLEMS; compiled by DIR.

Note: TFP=total factor productivity.

Problem areas for Japan's labor system

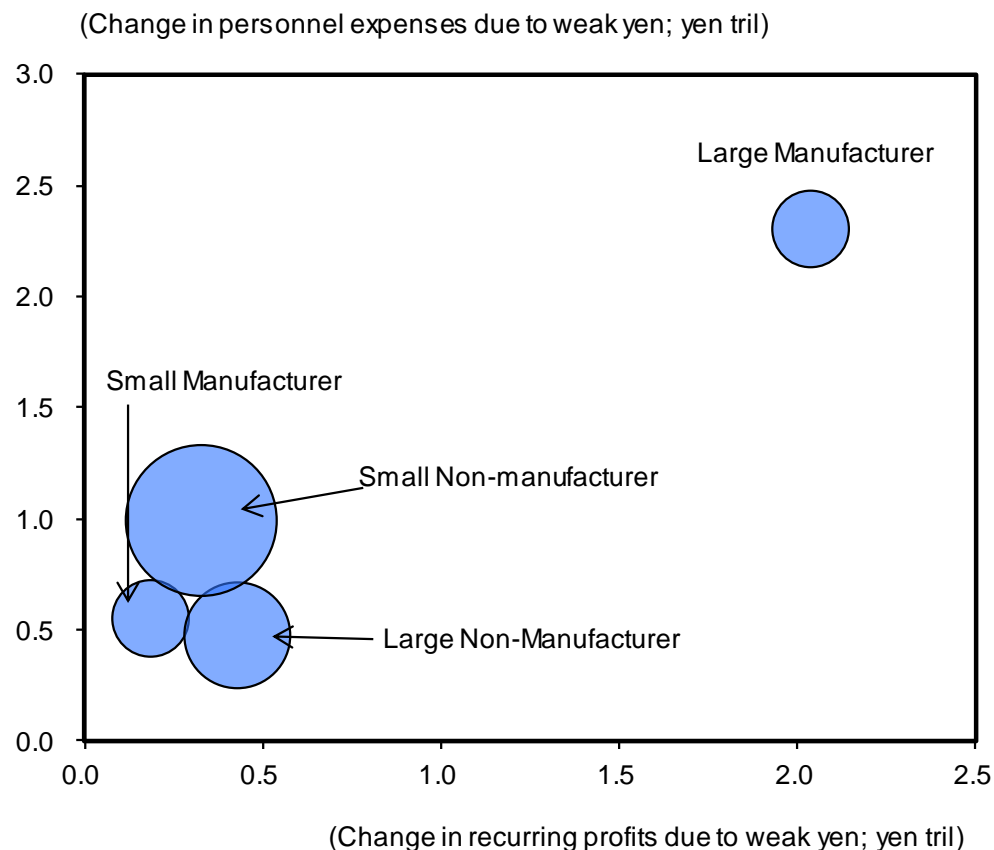


Overall picture of labor system reform



The Pros and Cons of Abenomics

Effects of Weak Yen Brought on by Abenomics and Number of Employees by Scale of Business



Note: Cumulative value of effects between Jan-Mar, 2013 and Oct-Dec, 2014.

Size of circles represents size of sector as of Oct-Dec, 2014 period.

Source: Ministry of Finance, BOJ, METI, Ministry of Internal Affairs and Communications, and Cabinet Office; compiled by DIR.

Effects of Weak Yen on Corporate Sector

Calculating the Effects of Cheap Yen Brought on by Abenomics on the Corporate Sector

		All Business Sizes / All Industries								
		Manufacturing				Non-Manufacturing			Large Corporations	Small Businesses
				Large Corporations	Small Businesses		Large Corporations	Small Businesses		
Recurring Profits	Amount Change (Yen Bil)	4,283	3,088	2,823	265	1,194	647	547	3,471	812
	Share of Recurring Profits (%)	3.4	6.7	7.2	3.7	1.5	1.3	2.0	3.8	2.3
Direct Effects	Amount Change (Yen Bil)	-1,296	1,294	1,406	-112	-2,590	-2,026	-564	-620	-676
	Share of Recurring Profits (%)	-1.0	2.8	3.6	-1.6	-3.3	-4.0	-2.0	-0.7	-1.9
Ripple Effect	Amount Change (Yen Bil)	5,578	1,794	1,417	377	3,784	2,673	1,111	4,090	1,488
	Share of Recurring Profits (%)	4.5	3.9	3.6	5.2	4.8	5.2	4.0	4.5	4.2
Personnel Expenses	Amount Change (Yen Bil)	6,178	3,846	3,075	771	2,332	723	1,609	3,798	2,380
	Share of Personnel Expenses (%)	1.9	3.7	4.7	2.0	1.0	0.8	1.2	2.4	1.4
capex	Amount Change (Yen Bil)	1,118	779	697	81	339	197	142	894	224
	Share of capex (%)	1.6	3.2	3.6	1.5	0.7	0.6	1.0	1.7	1.2

Source: Ministry of Finance, BOJ, METI, Ministry of Internal Affairs and Communications, and Cabinet Office; compiled by DIR.

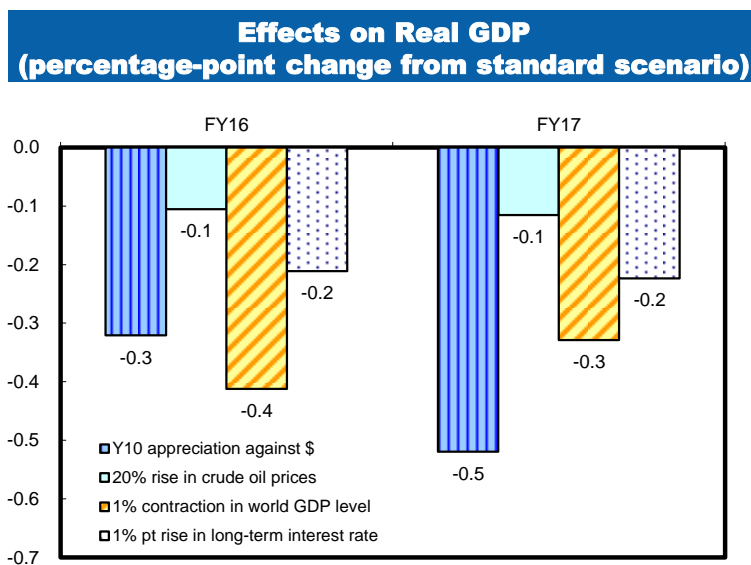
Notes: 1) Calculated values found using a macro model. Cumulative value of effects between Jan-Mar, 2013 and Oct-Dec, 2014.

2) Direct effect is the total of increase in exports and increase in import price due to weak yen. Ripple effect is the effect of increase in transactions between corporations including increase in final demand associated with weak yen and price pass-through.

3) Influence of personnel expenses and capex use constant and hypothetical calculated values for labor's relative share and capex/cash flow ratio.

Risk Factors Facing Japan's Economy

- ① **China's economic downturn**
- ② **Turmoil in emerging markets associated with U.S. exit strategy**
- ③ **Progression of risk-off behaviors (strengthening of yen / stock price lows) due to geopolitical risk**
- ④ **UK withdrawal from the EU and deleveraging by EU financial institutions**

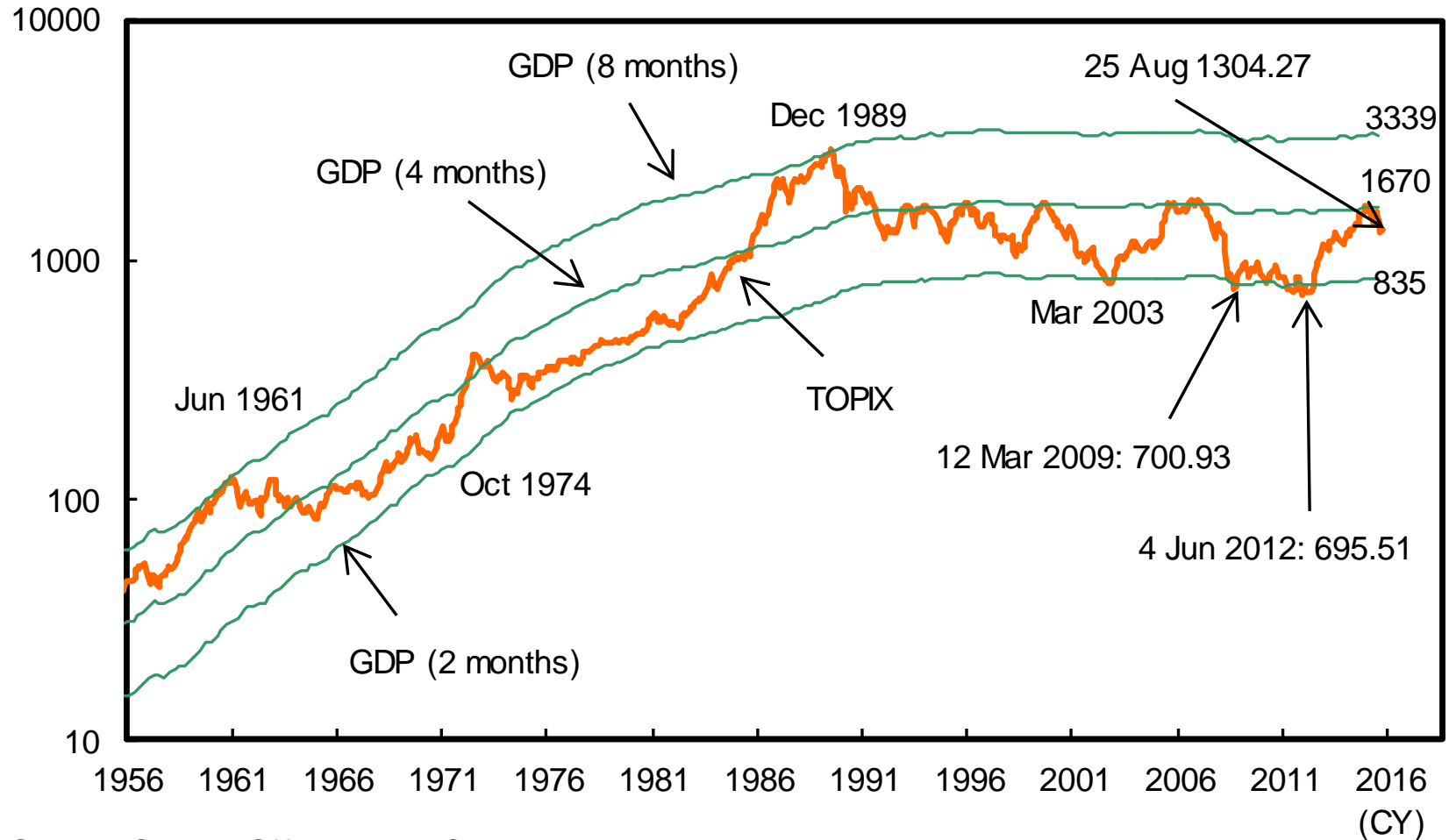


Source: Compiled by DIR.

Note: Extent of influence in cases where the standard scenario shifts to a risk scenario.

Japan's Stock Market Currently in "Reverse Bubble" Correction Phase

TOPIX (pt) and Nominal GDP (Y100 bil)

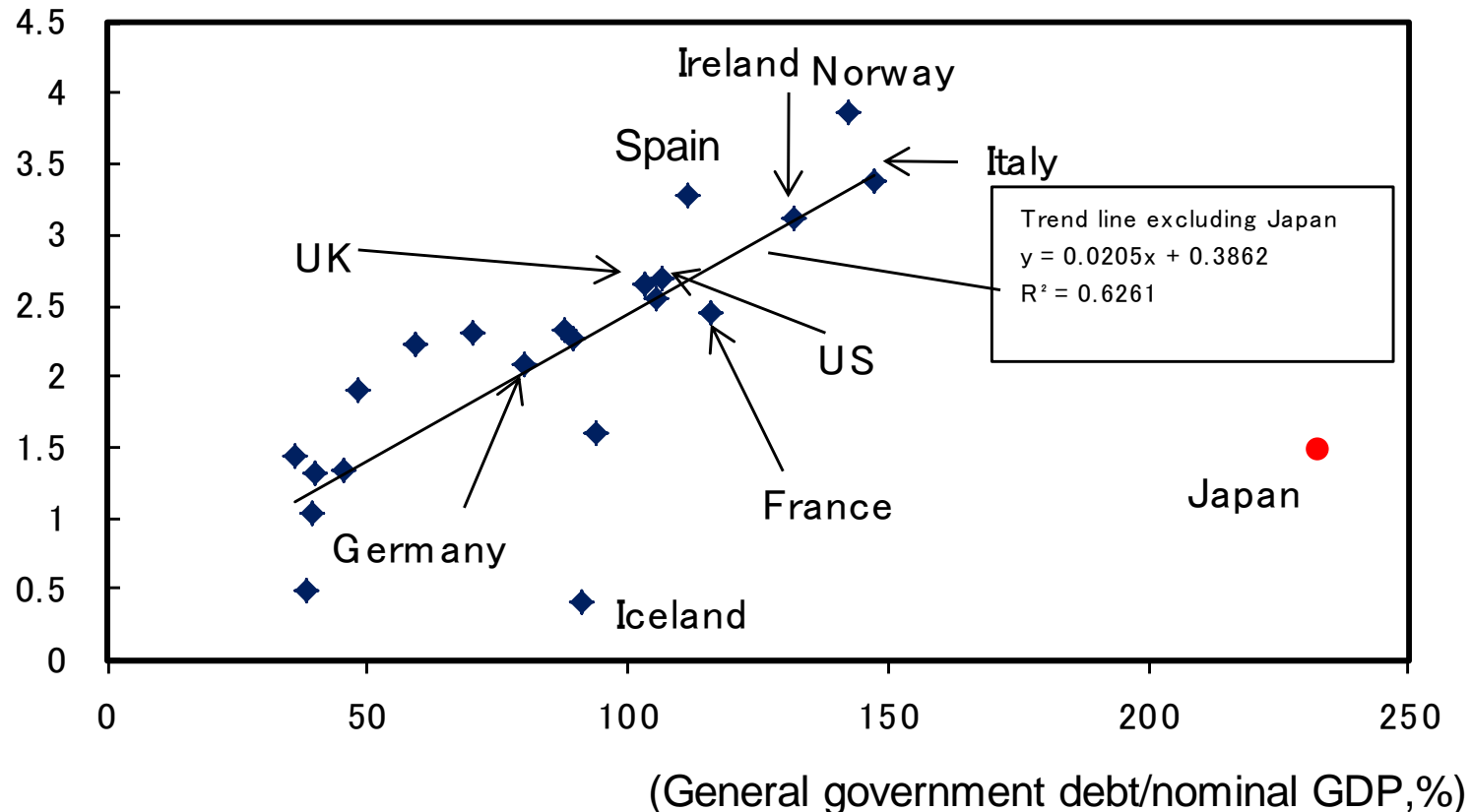


Source: Cabinet Office, Tokyo Stock Exchange; compiled by DIR.

Relationship between government debt & long term interest rates

OECD countries: General government debt & short/long-term interest spreads (2015)

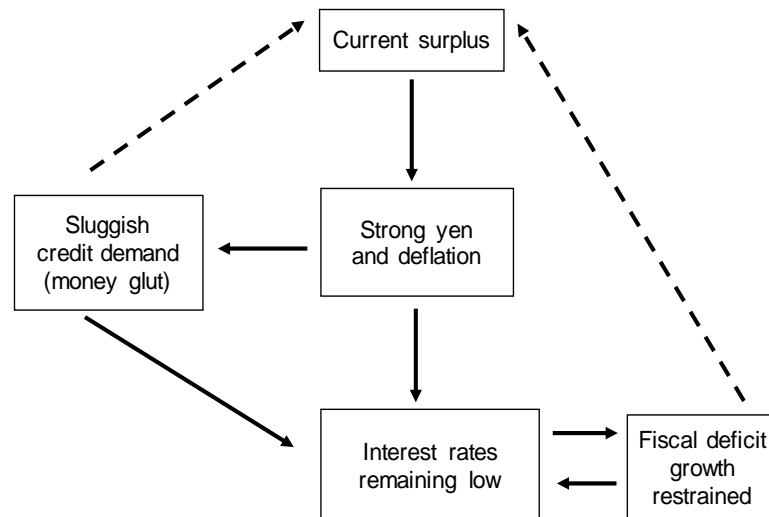
(Long-term interest – short-term interest, percentage points)



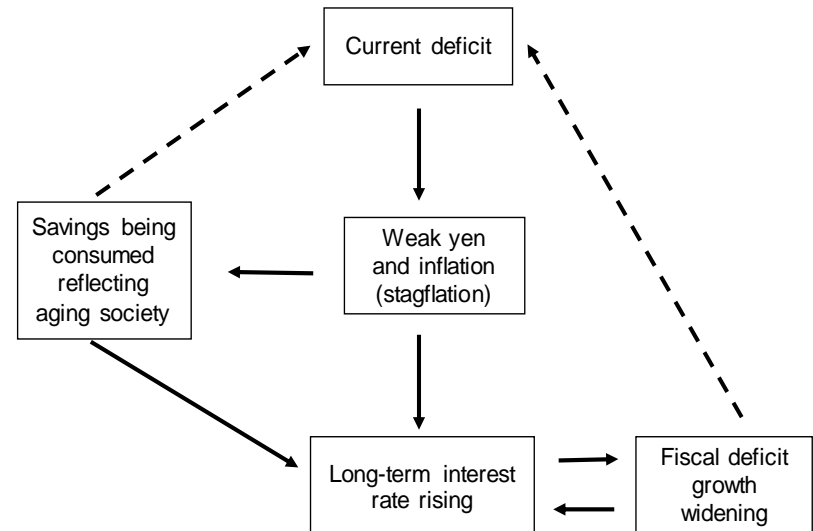
Source: Compiled by DIR from OECD statistics.

Changes in Japan's Economic Environment

Japan's Economic and Financial Environment: Current Situation



Japan's Economic and Financial Environment: Future Outlook

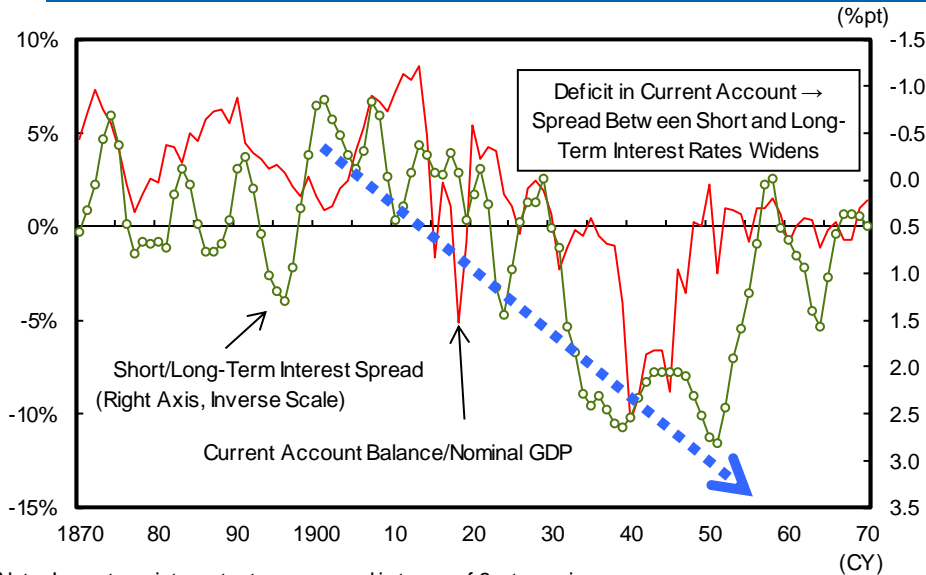


Source: Compiled by DIR.

“Slow-Boiling Frog” Structure ⇒ Hard Landing

Worsening Current Account Balance Means Risk of Collapse in Government Bond Market

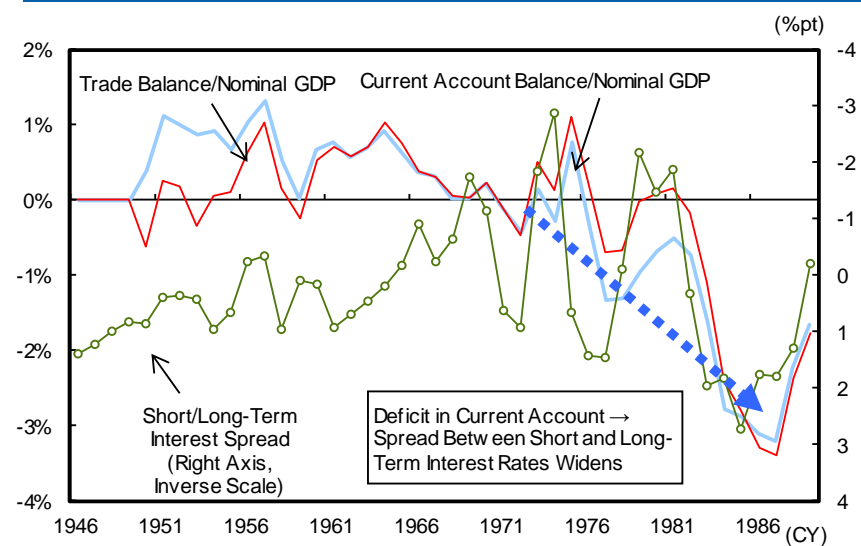
UK Current Account and Spread Between Short and Long-Term Interest Rates



Note: Long-term interest rate expressed in terms of 3-qtr moving average.

Source: International Historic Statistics, by Brian R. Mitchell (Palgrave Macmillan), A History of Interest Rates; compiled by DIR.

US Current Account and Spread Between Short and Long-Term Interest Rates



Source: Historical Statistics of the United States; compiled by DIR.

© Comparing EU Sovereign Risk and Japan's Fiscal Deficit Problem

- (1) EU: Twin Deficits (fiscal deficit & current account deficit) ⇔ cf. Japan's current account is in the black
- (2) EU: High ratio of foreign holdings of govt. bonds ⇔ cf. Japan's ratio of foreign holdings of govt. bonds is around 10%