



Japan crash thesis: How likely is it?

3 June 2013

Passion to Perform

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- 1) Decent annualized real GDP growth of 3.6% during four quarters (2Q 2013 – 1Q 2014) is forecast.
- 2) Three stages of monetary stimulus on economic activity
 - i) JPY depreciation → recovery in exports → profit recovery; and
Recovery in stock market → wealth effect on consumption [6 months During 2013]
 - ii) Profit recovery → wage growth → consumption growth [12-18 months From 1H 2014]
 - iii) Better prospect for Japan → recovery in capital investment [18 months or beyond From 2H 2014]
- 3) Pipeline pressure on CPI inflation to peak at 1.0-1.5% YoY in 1H 2014
- 4) Consumption tax hikes as planned: 5% → 8% in April 2014; → 10% in October 2015. This forms a temporary drag to growth, followed by a return to economic expansion
- 5) Japan's new steady state: 2% nominal GDP growth, 1% CPI inflation, 1% 10-yr JGB yield, 5% M2 growth
- 6) Nominal GDP growth higher than long-term rates reinforces a virtuous circle between economic activity and asset prices
- 7) Most fundamental factors for JPY weakness: i) monetary easing; ii) narrowing external imbalances
- 8) Expanding current account surplus as a buffer for private saving to finance fiscal deficit



Business cycle outlook for 2013-2015 (1)

Japan's Economic Outlook

		FY10	FY11	FY12	FY13(F)	FY14(F)	FY15(F)	CY10	CY11	CY12	CY13(F)	CY14(F)	CY15(F)
Real GDP	%YoY	3.4	0.2	1.2	3.0	-0.3	1.0	4.7	-0.5	2.0	2.1	0.8	0.6
Domestic demand	%pt	2.6	1.2	1.9	2.2	-1.2	0.3	2.9	0.3	2.8	1.7	0.0	-0.2
External demand	%pt	1.0	-0.9	-0.7	0.7	0.9	0.7	2.0	-0.8	-0.8	0.4	0.8	0.7
Real final sales	%YoY	2.7	0.7	1.3	2.7	-0.6	1.1	3.9	0.0	1.9	2.1	0.4	0.6
Real private final sales	%YoY	3.3	0.7	0.3	2.8	-0.6	1.5	4.7	0.0	1.2	1.7	0.6	1.1
Real private consumption	%YoY	1.7	1.5	1.6	2.4	-2.0	0.5	2.8	0.5	2.3	1.9	-0.5	-0.1
Real private capital investment	%YoY	3.6	4.0	-1.3	-1.5	0.5	1.3	0.7	3.3	1.9	-3.2	0.6	1.3
Real exports of goods & services	%YoY	17.2	-1.6	-1.3	7.4	8.3	7.9	24.5	-0.4	-0.1	3.6	9.0	8.0
Nominal GDP	%YoY	1.3	-1.5	0.3	2.7	1.4	1.7	2.4	-2.4	1.1	1.4	2.2	1.3
GDP deflator	%YoY	-2.1	-1.7	-0.9	-0.3	1.7	0.0	-2.2	-0.5	-1.7	-1.3	1.4	0.4
CPI, overall	%YoY	-0.6	-0.1	-0.2	0.2	2.7	1.3	-0.7	-0.3	0.0	-0.1	2.2	1.5
CPI, excl. fresh food	%YoY	-0.9	0.0	-0.2	0.2	2.7	1.3	-0.9	-0.2	-0.1	0.0	2.2	1.5
CPI, excl. food and energy	%YoY	-1.3	-0.8	-0.6	-0.1	1.7	1.1	-1.2	-1.0	-0.6	-0.4	1.4	1.1
Industrial production	%YoY	9.2	-1.2	-3.1	5.0	1.7	2.8	16.6	-2.4	-0.9	1.2	3.7	2.6
Unemployment rate	%	5.0	4.5	4.3	4.1	3.9	3.9	5.0	4.6	4.3	4.1	4.0	3.9
Compensation of employees	%YoY	0.4	0.6	-0.3	1.4	1.7	1.6	0.0	0.5	-0.1	0.8	1.8	1.7
Unit labor cost	%YoY	-2.9	0.3	-1.4	-1.6	2.0	0.6	-4.4	1.0	-2.1	-1.3	1.0	1.1
Labor share	%	50.8	51.8	51.5	50.9	51.1	51.0	50.5	52.0	51.4	51.1	51.0	51.1
Labor productivity	%YoY	2.4	0.1	2.0	3.9	-0.3	0.8	3.4	-0.2	1.6	4.0	0.6	0.5
GDP gap	% of potential GDP	-2.2	-2.6	-2.3	-0.7	-2.9	-3.4	-2.1	-3.3	-2.3	-1.6	-2.3	-3.3
General government fiscal balance	% of GDP	-8.5	-9.1	-9.6	-9.3	-7.1	-5.7	-8.4	-9.0	-9.6	-9.5	-7.7	-6.2
Trade balance	% of GDP	1.3	-0.8	-1.4	-1.5	-0.5	0.1	1.6	-0.4	-1.1	-1.7	-0.8	-0.1
Current account balance	% of GDP	3.5	1.6	0.9	1.3	2.5	3.4	3.7	2.0	1.1	1.1	2.2	3.2

Notes: 1) Final demand = GDP - inventories. 2) Private final demand = GDP - inventories - public demand.

Sources: Cabinet Office, BoJ, METI, MHLW, MoF, MIC, DB Global Markets Research

Business cycle outlook for 2013-2015 (2)



Major economic indicators

		2013				2014				2015				2016
		Q1	Q2(F)	Q3(F)	Q4(F)	Q1(F)	Q2(F)	Q3(F)	Q4(F)	Q1(F)	Q2(F)	Q3(F)	Q4(F)	Q1(F)
Real GDP	%QoQ	0.9	1.3	0.9	0.5	0.8	-2.1	0.7	0.2	0.4	0.3	0.3	-0.4	0.7
	%SAAR	3.5	5.1	3.7	2.2	3.4	-8.1	2.7	0.8	1.5	1.1	1.3	-1.8	2.6
	%YoY	0.0	1.5	3.3	3.6	3.6	0.2	-0.1	-0.4	-0.9	1.5	1.2	0.5	0.8
Domestic demand contribution	%QoQ	0.5	0.9	0.6	0.3	0.8	-2.5	0.5	0.0	0.2	0.1	0.2	-0.9	0.6
External demand contribution	%QoQ	0.4	0.4	0.2	0.2	0.0	0.4	0.2	0.2	0.1	0.1	0.1	0.5	0.1
Final sales (=GDP-inventories)	%QoQ	1.1	1.0	0.6	0.6	0.9	-2.4	0.5	0.4	0.4	0.4	0.4	-0.7	0.5
Private final sales	%QoQ	1.3	1.1	0.7	0.7	1.1	-2.9	0.8	0.6	0.6	0.5	0.5	-1.0	0.5
Private consumption	%QoQ	0.9	0.7	0.4	0.5	1.5	-4.2	0.8	0.4	0.4	0.4	0.5	-2.0	0.5
Private capital investment	%QoQ	-0.7	0.2	0.3	0.3	0.3	-0.5	0.5	0.4	0.4	0.4	0.4	-0.2	0.4
Private inventories (contribution)	%QoQ	-0.2	0.2	0.3	0.0	-0.1	0.3	0.1	-0.2	0.0	-0.1	-0.1	0.2	0.1
Exports	%QoQ	3.8	3.4	2.5	2.5	2.0	1.6	2.2	2.0	2.0	1.9	1.8	1.8	1.9
Nominal GDP	%QoQ	0.4	1.3	1.0	0.6	0.9	-0.6	0.7	0.3	0.4	0.3	0.4	0.6	0.7
	%YoY	-1.1	0.7	2.8	3.4	3.9	1.9	1.6	1.2	0.7	1.7	1.3	1.6	2.0
GDP deflator	%YoY	-1.1	-0.8	-0.5	-0.3	0.3	1.8	1.7	1.7	1.6	0.2	0.2	1.1	1.2
Industrial production	%QoQ	2.2	2.0	2.3	2.3	2.0	-3.8	2.0	1.3	1.0	0.8	1.0	-1.8	1.3
	%YoY	-5.9	-2.0	4.5	8.9	8.8	2.6	2.4	1.4	0.4	5.1	4.1	1.0	1.2
Domestic corporate goods prices	%QoQ	0.8	0.8	0.7	0.5	0.4	3.4	0.2	0.2	0.4	0.5	0.6	2.6	0.3
	%YoY	-0.3	0.8	2.3	2.8	2.4	5.0	4.5	4.1	4.1	1.3	1.7	4.1	4.0
Consumer prices, overall	%QoQ	-0.1	0.1	0.2	0.2	0.2	2.3	0.2	0.1	0.1	0.2	0.2	1.6	0.2
	%YoY	-0.6	-0.3	0.1	0.3	0.6	2.8	2.8	2.7	2.7	0.6	0.6	2.1	2.1
Consumer prices, excl. fresh food	%QoQ	0.0	0.1	0.2	0.2	0.2	2.3	0.2	0.1	0.1	0.2	0.2	1.6	0.2
	%YoY	-0.3	-0.2	0.1	0.4	0.6	2.8	2.8	2.7	2.7	0.6	0.6	2.1	2.1
Consumer prices, excl. food and energy	%QoQ	-0.1	0.0	0.1	0.1	0.1	1.4	0.1	0.1	0.1	0.1	0.2	1.4	0.2
	%YoY	-0.8	-0.6	-0.3	0.2	0.4	1.7	1.7	1.7	1.7	0.5	0.5	1.8	1.8
Unemployment rate	%	4.2	4.1	4.1	4.1	4.0	4.0	3.9	4.0	3.9	3.9	3.9	3.9	3.9
GDP gap	% of potential GDP	-2.5	-1.6	-1.1	-1.0	-0.5	-3.0	-2.7	-2.9	-3.0	-3.1	-3.1	-3.9	-3.6
Current account	¥ trn	2.8	4.3	6.0	7.7	7.5	10.6	11.8	13.1	14.0	14.9	15.4	18.9	19.5
	% of GDP	0.6	0.9	1.2	1.6	1.5	2.2	2.4	2.6	2.8	3.0	3.1	3.8	3.8
O/N call rate (end of period)	%	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
10-year JGB yield (period average)	%	0.7	0.8	0.9	1.0	0.9	0.8	0.8	0.9	0.9	1.0	0.9	0.9	1.0
USD/JPY (period average)	¥/USD	92	103	107	109	111	112	113	114	115	116	118	119	120

Sources: Cabinet Office, METI, Bank of Japan, MIC, TSE, Deutsche Securities forecast



Qualitative assessment of major economic indicators

	2013	2014
GDP	<p>Cyclical recovery</p> <p>Six consecutive QoQ growth is expected through 1Q (Jan-Mar) 2014.</p> <p>Effects of Abenomics mainly come from monetary easing. Underlying trend of nominal GDP growth to rise to 2%.</p>	<p>Economic recovery to resume in 3Q (Jul-Sep), following a temporary negative shock from consumption tax hike in April 2014 (from 5% to 8%).</p> <p>Front-loaded demand in housing and consumer durables has already materialized. Government intends to limit the dislocation of demand before and after the consumption tax hike by tax cuts in housing and autos. They will limit the size of the dislocation to a smaller one than the last time.</p>
Private consumption	<p>Higher growth in 1H 2013 thanks to the wealth effect.</p> <p>Wage recovery led by Dec-2013 bonus. Nominal compensation of employees is expected to rise 2% in 2013 and 2014 respectively.</p>	<p>The front-loaded demand prior to the consumption tax hike mainly in housing and expensive consumption goods, but is likely to be small and concentrated in 1Q (Jan-Mar) 2014.</p> <p>Higher base-pay rise in 2014 than in 2013 is expected. Excluding the effect of the consumption tax hike, the underlying consumption trend growth should improve in 2014 over 2013.</p>
Housing investment	<p>Modest recovery to continue; Additional tail wind from an inheritance tax hike.</p> <p>Front-loaded demand to peak in 4Q (Oct-Dec) 2013 but its size should be small.</p>	
Private capital investment	<p>Capital investment recovery is to be in the third stage of monetary easing effects, due to low capacity utilization.</p>	<p>Better recovery prospect in 2H 2014.</p> <p>Additional tail winds from continued JPY depreciation, corporate tax cuts, progress on nuclear power are needed to domestic capital investment recovery.</p>
Public demand	<p>Level of public demand during 2013 is likely to fall from extremely high levels of 2012, even with the FY2012 supplementary budget</p>	
Trade balance	<p>JPY weakness should help recover exports, even though global economic recovery remains subdued.</p> <p>The level of trade deficit is likely to fall but high oil prices prevent oil imports from falling substantially.</p> <p>JPY weakness causes import prices to rise but high import prices should restrain import volumes.</p>	
Current account balance	<p>Income surplus is likely to expand and stay at a JPY15-17trn range.</p>	<p>Current account surplus is likely to expand to JPY12trn in 2014.</p>
Fiscal balance	<p>Recovery in tax revenues.</p>	<p>General government fiscal deficit to shrink to JPY30-35trn due to a consumption tax hike.</p> <p>A half of fiscal deficit is cyclical, and the remaining half structural. The structural deficit can be largely eliminated by a consumption tax hike to a 15-17% range.</p>

Source: DB Global Markets Research

2% inflation targeting is highly difficult to achieve but benefits arise in the process



Japan's new steady state

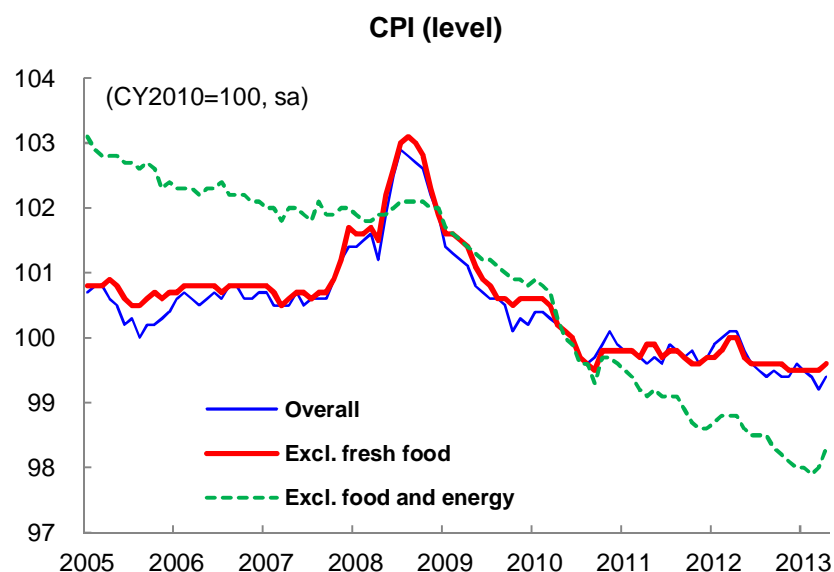
(%YoY, %)	New steady state	1998 - 2012
CPI, overall	1.0	-0.22
CPI, excl. fresh food	1.0	-0.22
CPI, excl. food & energy	1.0	-0.46
Nominal GDP	2.0	-0.63
M2	5.0	2.46
10-year JGB yield	1.0	1.37

Note: Excluding the effect of consumption tax hike for new steady state.

Sources: MIC, Cabinet Office, BoJ, DB Global Markets Research

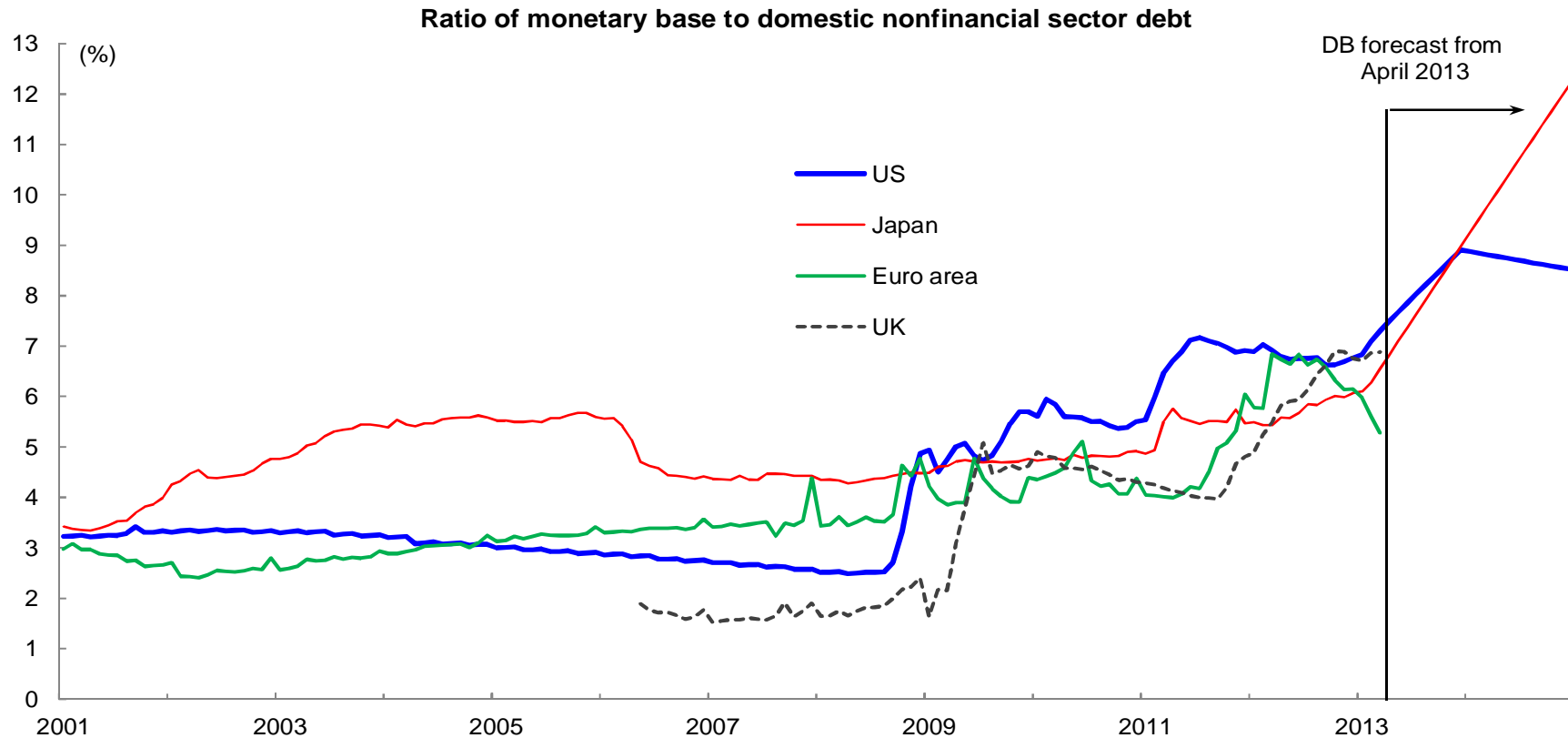
Important points in implementing 2% inflation targeting

- 1) Both potential and actual growth are raised, which enables the economy to grow for longer without being interrupted by monetary tightening Better outcome than 2% inflation.
- 2) Even if 2% inflation is not achieved, additional monetary easing in the process of pursuing 2% inflation results in benefit to economic activity (JPY depreciation, earnings recovery, higher stock prices, wealth effect, traction to domestic demand, etc.) Improvement in these areas narrows the deflationary output gap, thus leading to an end to deflation.
- 3) Normalization of economic activity via sustained economic expansion inevitably accompanies a rise in asset prices (Everything that goes up should not be considered a 'bubble').



Sources: MIC, DB Global Markets Research

The BoJ boldly goes where no one has gone before: International comparison (1)



Notes: US assumes USD40bn monthly purchase of MBS and USD45bn monthly purchase of Treasury securities through Dec 2013.

Japan assumes JPY5.83trn monthly rise (JPY70trn annual rise) in monetary base.

Sources: BoJ, Federal Reserve, Haver Analytics, DB Global Markets Research

-The central bank B/S should be normalized by debt of domestic nonfinancial sector (households, businesses, government), instead of GDP. (Under zero interest rates, monetary policy is conducted via exchanging debt of the central bank with that of nonfinancial domestic sectors. How much of debt the central bank has bought is the right measurement of the monetary policy stance. In addition, debt accumulation restrains economic growth, and the larger the debt, the more purchase of debt by the central bank is needed to stimulate economy.)

The BoJ boldly goes where no one has gone before: International comparison (2)

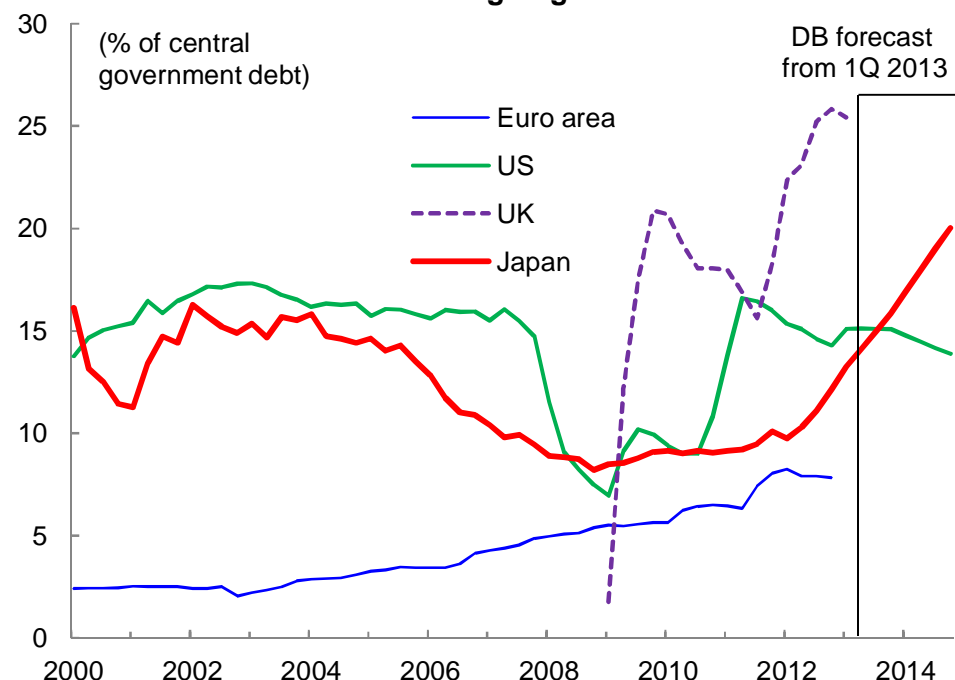


Fiscal deficit and monetization in G4

	US	Euro area	UK	Japan
1) General government fiscal balance (% of GDP)				
2008	-6.6	-2.1	-5.0	-1.9
2009	-11.9	-6.3	-10.9	-8.8
2010	-11.4	-6.2	-10.1	-8.4
2011	-10.2	-4.1	-8.3	-9.3
2012	-8.5	-3.3	-6.6	-9.9
2008-12 Total	-48.6	-22.2	-40.9	-38.3
2) % of fiscal deficit financed by monetary base expansion				
2008	88.6	84.0	34.5	18.4
2009	21.8	-8.0	66.2	11.3
2010	-0.5	7.8	-2.5	16.7
2011	39.0	134.0	22.8	32.0
2012	4.5	30.4	107.4	29.7
2008-12 Total	25.9	38.4	43.4	22.6
2013(F)				155.5
2014(F)				193.1

Sources: OECD, Haver Analytics, DB Global Markets Research

Central bank holding of government debt



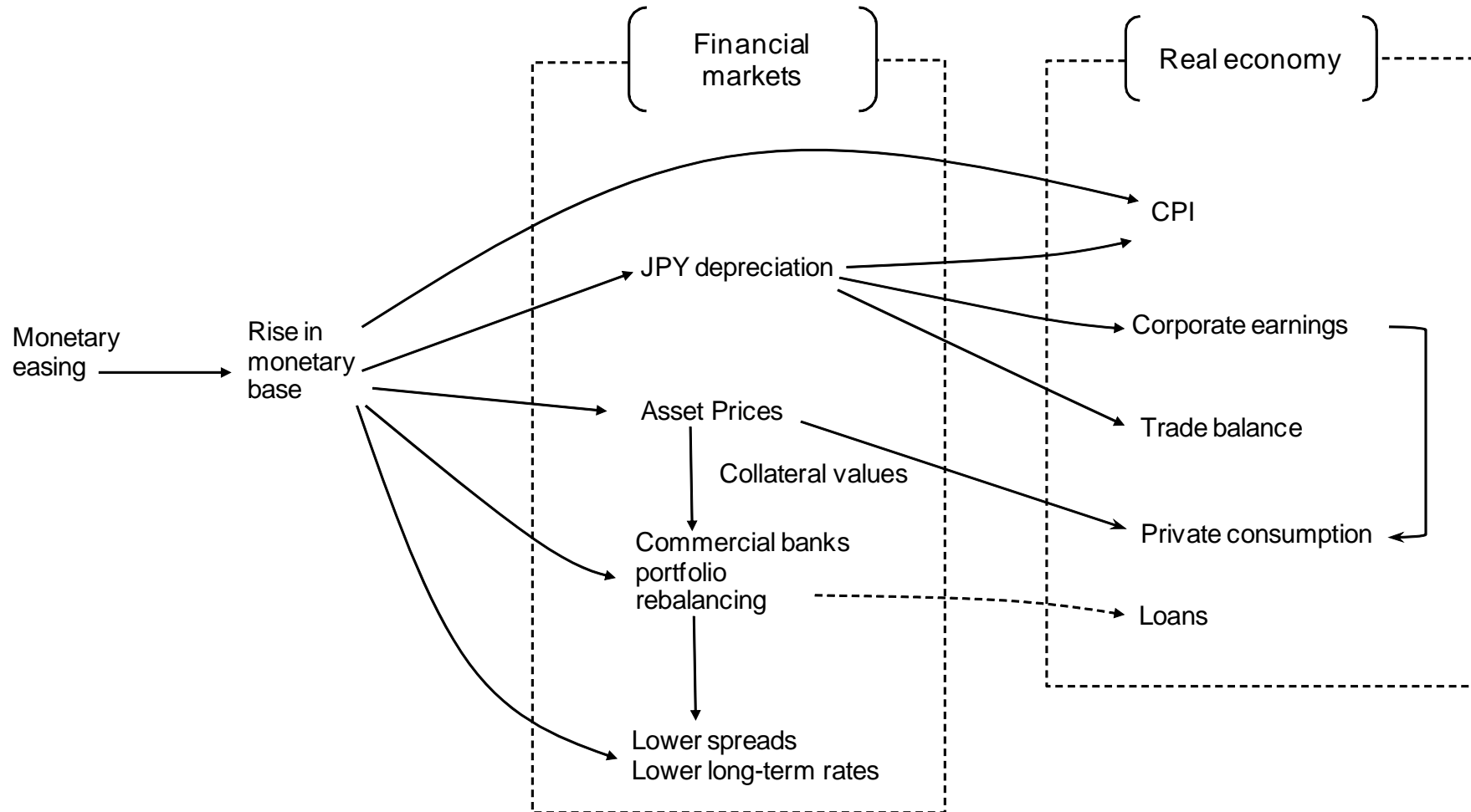
Sources: Haver Analytics, DB Global Markets Research

- There has been no precedent in which fiscal deficit is more than fully financed by a rise in monetary base for two successive years since 2008 in developed countries.



Transmission channels of monetary policy (1)

Transmission channels of monetary policy



Note: A dotted arrow shows an uncertain transmission channel.

Source: DB Global Markets Research



Transmission channels of monetary policy (2)

Effects of monetary policy and external factors on economic activity and prices (from past VAR models)

(Time horizon: 12 months)

	Cause		→	Effect
1	Monetary base	10% rise	CPI (excl. food and energy)	0.217%point rise
2	Monetary base	10% rise	Nikkei 225 stock price index	8.22%point rise
3	Nominal effective JPY exchange rate	10% depreciation	CPI (excl. food and energy)	0.64%point rise
4	Nominal effective JPY exchange rate	10% depreciation	Domestic corporate goods prices	1.44%point rise
5	Nominal effective JPY exchange rate	10% depreciation	Manufacturing operating profit	21% rise (first two quarters)
6	Nominal effective JPY exchange rate	10% depreciation	Manufacturing operating profit	11% rise (full year)
7	Nominal effective JPY exchange rate	10% depreciation	Nikkei 225 stock price index	6.3%point rise (four months)
8	Nominal effective JPY exchange rate	10% depreciation	Nikkei 225 stock price index	2.1%point rise (12 months)
9	Nominal effective JPY exchange rate	10% depreciation	Trade balance (excl. mineral fuel imports)	JPY2.6trn improvement
10	Nominal effective JPY exchange rate	10% depreciation	Mineral fuel import prices (in JPY)	6.4%point rise
11	Oil prices (in USD)	10% rise	Mineral fuel import prices (in JPY)	7.7%point rise
12	World GDP	0.5% rise	CPI (excl. food and energy)	0.28%point rise
13	World GDP	0.5% rise	Trade balance (excl. mineral fuel imports)	JPY1.6trn improvement
14	World GDP	0.5% rise	Manufacturing operating profit	15% rise (full year)
15	CRB index	10% rise	CPI (excl. food and energy)	0.71%point rise
16	US-Japan external imbalance (% of GDP)	1%point narrowing	Nominal effective JPY exchange rate	0.66% depreciation

Source: DB Global Markets Research

- The effects of monetary easing on economic activity gradually shows up in 6-9 months and peak after 18-24 months.
- 27%point faster growth in monetary base and 25% JPY depreciation result in upward forces by 2.2%point in CPI (excl. food and energy) after 12 months.
- In order to sustain these effects, additional increase in monetary base and JPY depreciation should take place the following year.

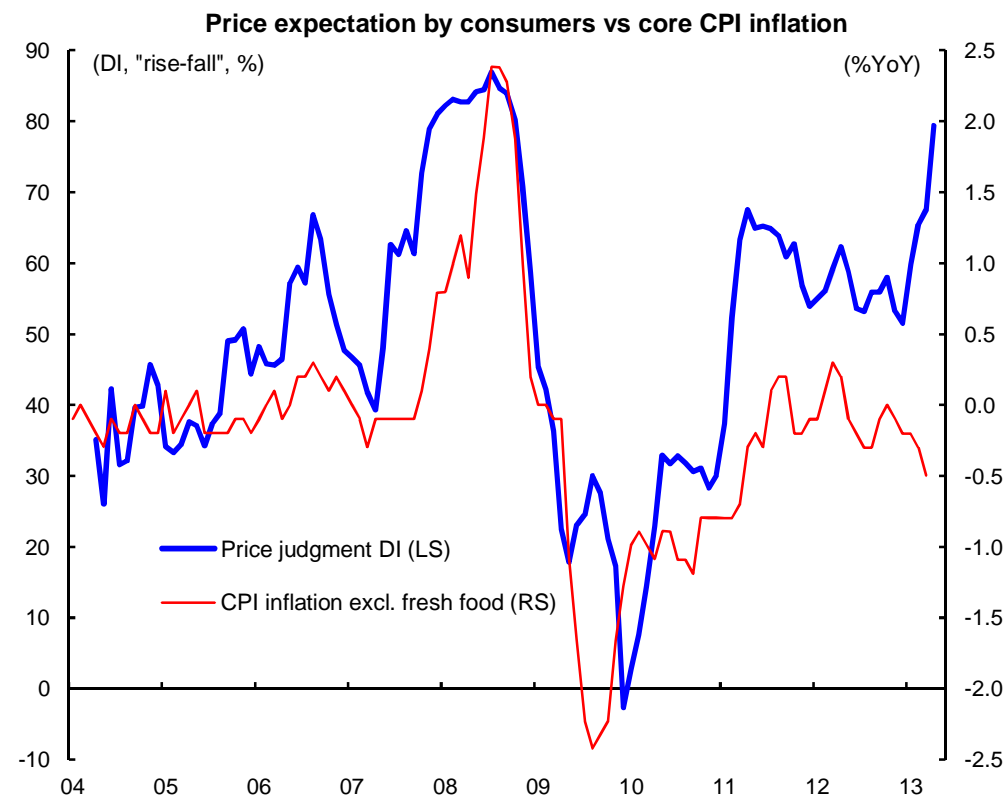
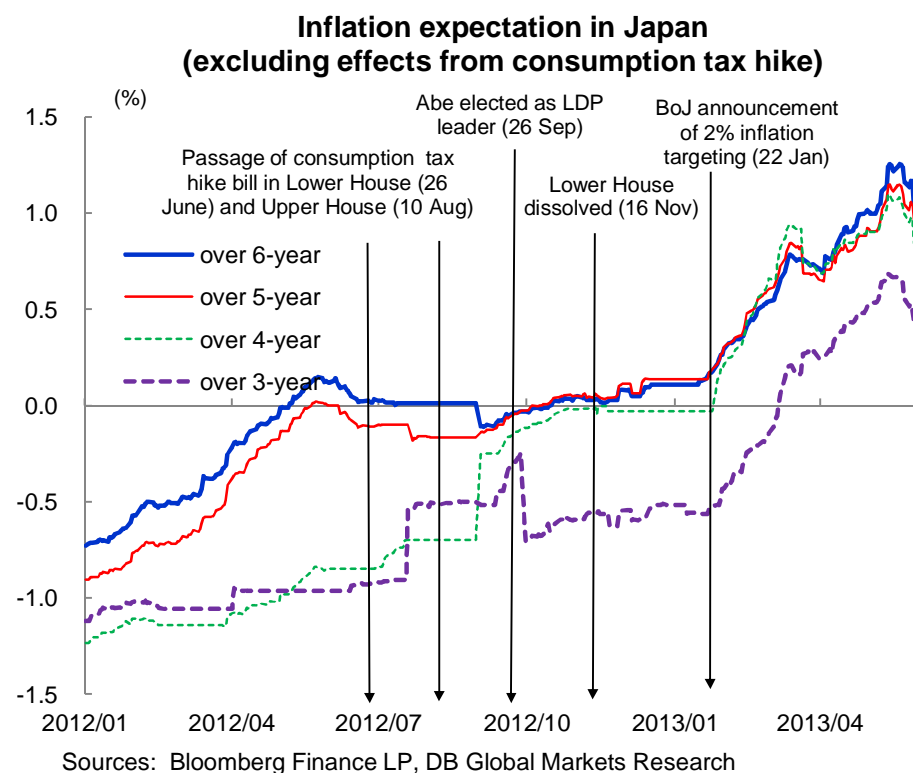


Contributions to economic growth from JPY depreciation and wealth effect are 1.0%point.

- 1) Private consumption remains firm despite limited improvement in income and employment.
(Household survey, retail sales, auto sales, Economy Watcher, consumer confidence, etc.)
 - 2) Abenomics intends to affect real economy through consumer/business psychology and wealth effect, not only from corporate earnings and household incomes.
 - 3) Wealth effect to sustain consumption until the economy reaches a stage of sustained growth of wages.
 - 4) 1 s.e. (0.97%) rise in disposable income raises consumption by 0.22%point; 1 s.e. (1.84%) rise in real financial assets raises consumption by 0.33%point; Marginal propensity to consume from wealth effect at 0.04 (two quarters after the initial shock).
 - 5) 10% JPY depreciation improves the trade balance by JPY1.4trn (0.3% of GDP) after 12 months.
-
- i) Households' direct holding of equities is JPY55trn and investment trusts JPY56trn (we assume half is equities) at end of Sep-2012. Total stock market capitalization rose 43.9% from Sep-12 to Mar-13. Wealth effect on households: $(55+56 \times 0.5) \times 0.439 \times 0.04 = \text{JPY}1.46\text{trn}$ (0.5% of private consumption, 0.3% of GDP)
 - ii) 25% JPY depreciation should raise the external demand contribution to growth by 0.7%point.

These two channels alone, ignoring the effect from fiscal stimulus, should raise the GDP growth by 1.0%point.

Inflation expectation by financial markets and households



Inflation expectation in financial markets

(%, annualized)	Next 3 yrs	Next 4 yrs	Next 5 yrs	Next 6 yrs
As of 16 May1 2013 (A)	1.58	1.71	1.65	1.63
Effect of consumption tax hike (B)	1.15	0.86	0.69	0.58
(A-B)	0.42	0.84	0.96	1.05

Sources: Bloomberg Finance LP, DB Global Markets Research



Demand-supply analysis of government debt for April 2013 – March 2014

3. Total government debt outstanding				Change from
(End of March 2013)		(End of March 2014)		Mar-13 to Mar-14
Above 1 year to 5 years	288.20	Above 1 year to 5 years	283.60	-4.60
Above 5 years to 10 years	157.00	Above 5 years to 10 years	165.90	8.90
Above 10 years to 20 years	123.60	Above 10 years to 20 years	122.83	-0.77
Above 20 years	49.30	Above 20 years	67.17	17.87
Total (excl. 1 year or less)	618.10	Total (excl. 1 year or less)	639.50	21.40

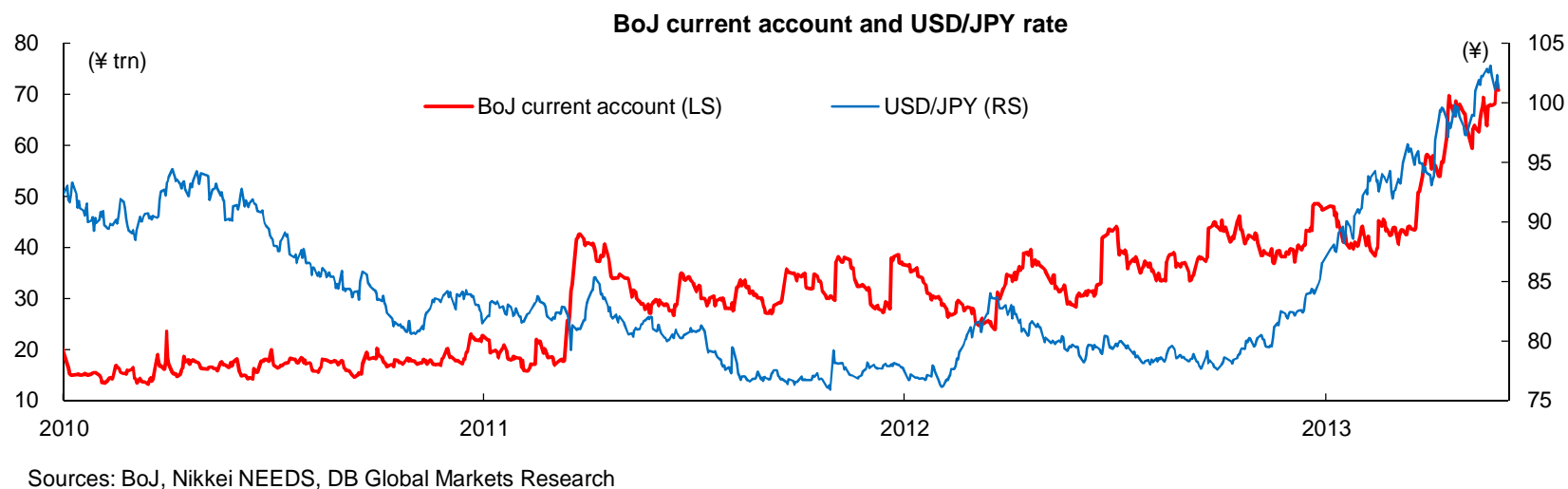
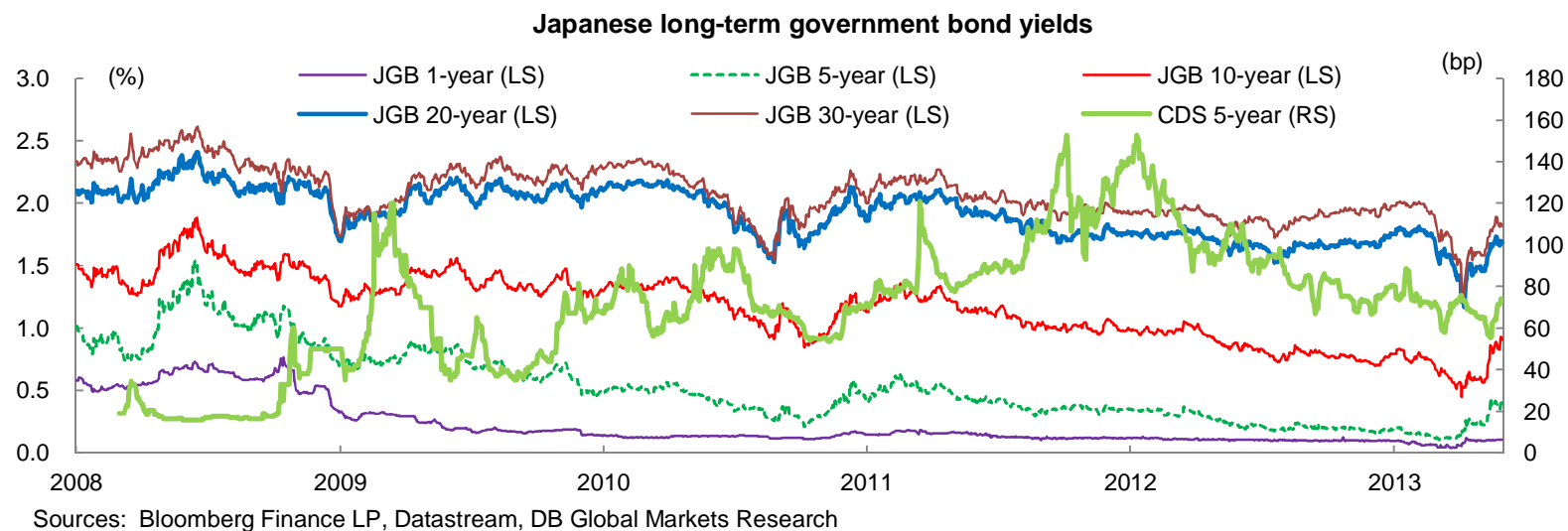
4. BoJ holding of government debt				Change from
(End of March 2013)		(End of March 2014)		Mar-13 to Mar-14
Above 1 year to 5 years	42.08	Above 1 year to 5 years	59.97	17.89
Above 5 years to 10 years	16.58	Above 5 years to 10 years	53.91	37.34
Above 10 years to 20 years	8.01	Above 10 years	15.81	7.26
Above 20 years	0.54	(incl. above 20 years)		
Total (excl. 1 year or less)	67.21	Total (excl. 1 year or less)	129.69	62.49

5. Total government debt held by financial market (excl. the BoJ holding)				Change from
(End of March 2013)		(End of March 2014)		Mar-13 to Mar-14
Above 1 year to 5 years	246.12	Above 1 year to 5 years	223.63	-22.49
Above 5 years to 10 years	140.42	Above 5 years to 10 years	111.99	-28.44
Above 10 years to 20 years	115.59	Above 10 years	174.19	9.84
Above 20 years	48.76	(incl. above 20 years)		
Total (excl. 1 year or less)	550.89	Total (excl. 1 year or less)	509.81	-41.09

Note: Negative number in the last column (highlighted by rectangular) indicates a reduction in outstanding.

Calculations for panels 3, 4, 5 exclude 1-year TBs and liquidity-enhancement issuance.

Sources: Bloomberg Finance LP, BoJ, DB Global Markets Research





Factors behind the recent rise in JGB yields

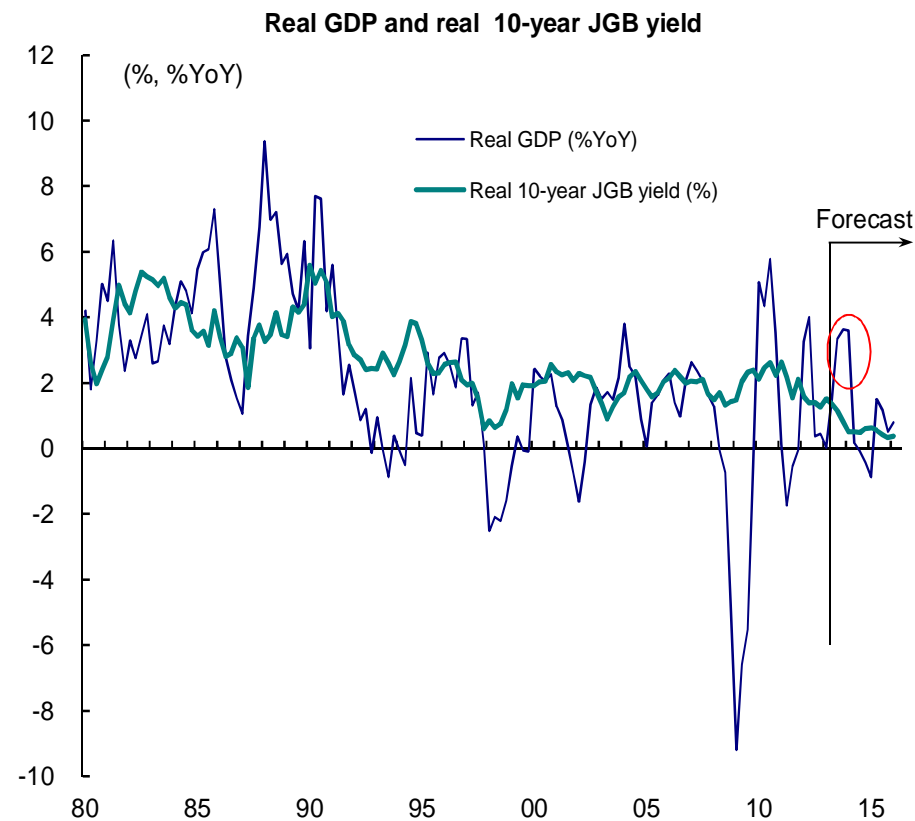
Factors behind the recent rise in JGB yields

- 1) Correction from structurally too pessimistic assessment of Japan by domestic fixed income investors [40%]
- 2) Better long-term growth prospect of the Japanese economy [30%]
- 3) A combination of JPY depreciation, rising stock market and steady global growth accompanies higher yields [20%]
- 4) A rise in US long-term rates [10%]

Important points

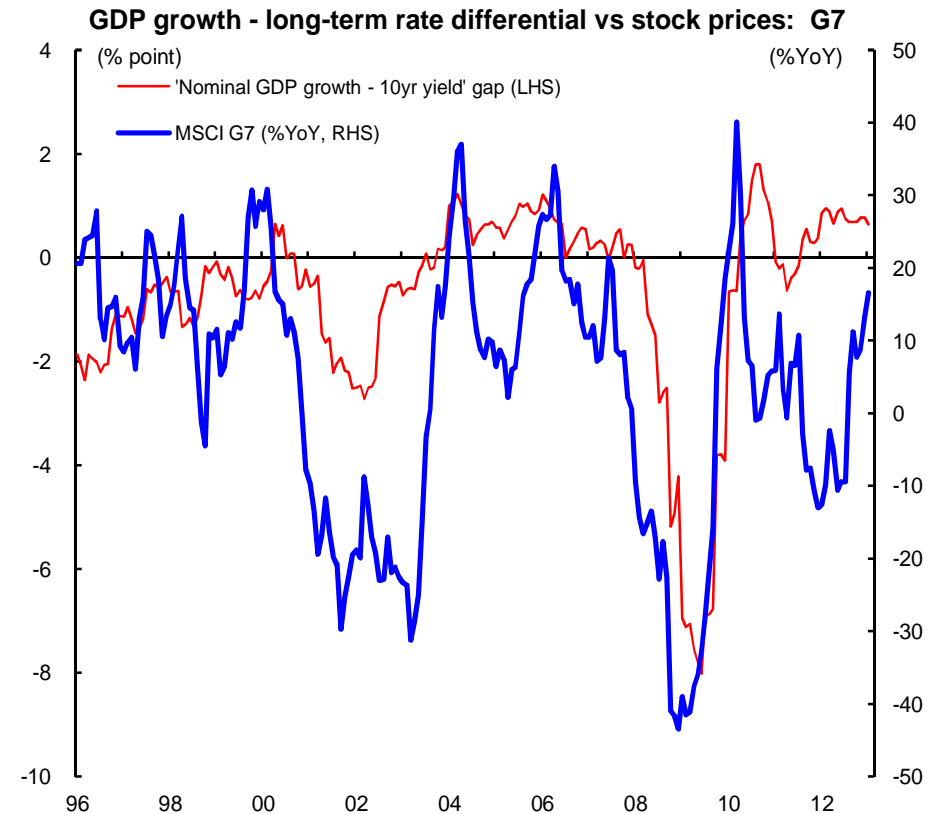
- 1) Do not look at absolute levels of 10-year yield. Look at it relative to economic growth: Higher nominal GDP growth than long-term rates narrows primary fiscal balance.
- 2) JPY depreciation supports higher current account surplus, a buffer for private saving to finance fiscal deficit.

Differential between GDP growth and long-term rates in positive territory thanks to aggressive monetary easing



Note: DB forecast from 2Q 2013 onward.

Sources: Cabinet Office, Tokyo Stock Exchange, DB Global Markets Research



Sources: Datastream, Nikkei NEEDS, DB Global Markets



Residents' portfolio investment is a small part of capital and financial accounts

Balance of payments in Japan
(JPY trn)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Current account [A]	10.65	14.14	15.77	18.62	18.30	19.91	24.93	16.66	13.74	17.89	9.55	4.82
Trade balance	8.40	11.55	11.98	13.90	10.33	9.46	12.32	4.03	4.04	7.98	-1.62	-5.81
Services	-5.19	-5.08	-3.62	-3.71	-2.64	-2.12	-2.50	-2.14	-1.91	-1.41	-1.76	-2.49
Income	8.40	8.27	8.28	9.27	11.42	13.81	16.47	16.12	12.77	12.41	14.04	14.27
Current transfers	-0.96	-0.60	-0.87	-0.85	-0.82	-1.24	-1.36	-1.35	-1.16	-1.09	-1.11	-1.14
Capital & financial accounts [B]	-6.17	-8.48	7.73	1.74	-14.01	-12.47	-22.54	-18.39	-14.27	-17.70	1.17	-8.19
Financial account	-5.83	-8.06	8.20	2.25	-13.46	-11.91	-22.07	-17.83	-13.80	-17.26	1.14	-8.11
Direct investment [D]	-3.90	-2.89	-2.61	-2.50	-4.74	-6.60	-6.01	-10.71	-5.87	-5.05	-8.73	-9.64
Assets (residents)	-4.66	-4.05	-3.34	-3.35	-5.05	-5.85	-8.66	-13.23	-6.99	-4.94	-8.59	-9.78
Liabilities (nonresidents)	0.76	1.16	0.73	0.85	0.31	-0.76	2.66	2.52	1.12	-0.11	-0.14	0.14
Portfolio investment [E]	-5.63	-13.15	-11.47	2.34	-1.07	14.80	8.25	-28.79	-20.51	-13.25	12.93	-3.22
Assets (residents)	-13.07	-10.16	-20.54	-18.91	-21.65	-8.27	-14.59	-19.35	-15.18	-23.07	-8.34	-12.00
Debt securities	-11.67	-5.53	-20.04	-15.49	-19.08	-5.38	-11.50	-12.82	-12.38	-21.15	-7.38	-13.79
Equity securities	-1.40	-4.63	-0.50	-3.42	-2.57	-2.90	-3.09	-6.53	-2.80	-1.92	-0.96	1.79
Liabilities (nonresidents)	7.44	-2.99	9.07	21.25	20.58	23.07	22.84	-9.44	-5.32	9.82	21.27	8.78
Debt securities	2.65	-0.92	-0.93	10.70	5.68	14.73	17.45	-2.09	-6.36	6.37	20.67	5.88
Equity securities	4.78	-2.06	10.00	10.55	14.90	8.34	5.39	-7.35	1.04	3.45	0.60	2.90
Financial derivatives	0.19	0.26	0.61	0.26	-0.80	0.28	0.32	2.46	0.95	1.03	1.35	-0.59
Other investment	3.52	7.72	21.67	2.15	-6.85	-20.39	-24.64	19.21	11.63	0.01	-4.40	5.34
Capital account	-0.35	-0.42	-0.47	-0.51	-0.55	-0.55	-0.47	-0.56	-0.47	-0.43	0.03	-0.08
Changes in reserve assets [C]	-4.94	-5.80	-21.53	-17.27	-2.46	-3.72	-4.30	-3.20	-2.53	-3.79	-13.79	3.05
Errors & omissions	0.46	0.13	-1.97	-3.09	-1.83	-3.73	1.90	4.93	3.06	3.60	3.07	0.31
(Reference) Direct and portfolio investment [D+E]	-9.53	-16.04	-14.08	-0.16	-5.81	8.19	2.25	-39.49	-26.38	-18.30	4.20	-12.86

Notes: Balance of payment identity is A+B+C=0

This report examined the only shaded area in this table.

Negative figures show outflow of capital in capital & financial account and changes in reserve assets.

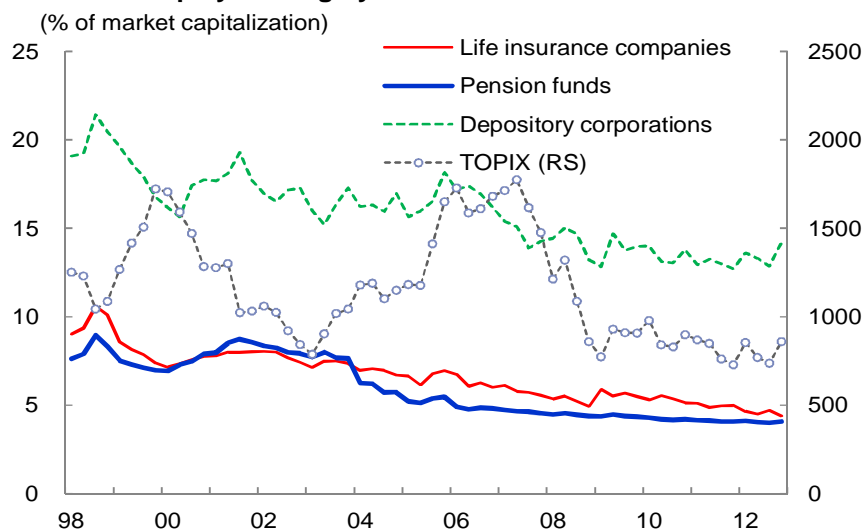
Sources: BoJ, DB Global Markets Research.

- Residents' outward direct investment, nonresidents inward direct and portfolio investment are also components of capital & financial accounts in the balance of payments.
- The above three are potentially JPY appreciation forces.
- Most fundamental JPY weakness factors are: 1) monetary easing in Japan, 2) narrowing external imbalances.
- Identity in the balance of payments: Current account + capital accounts + changes in foreign reserves = 0.

Change in residents' outward portfolio investment flows

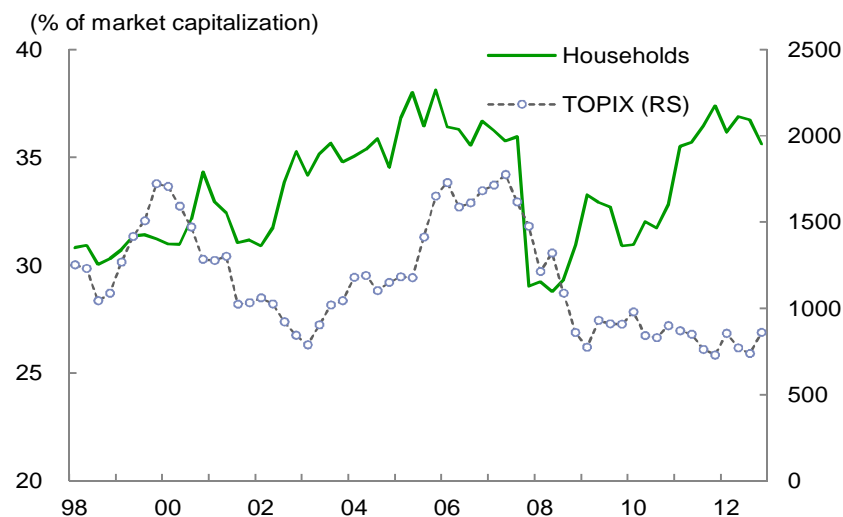


Equity holding by each sector in TSE 1st section



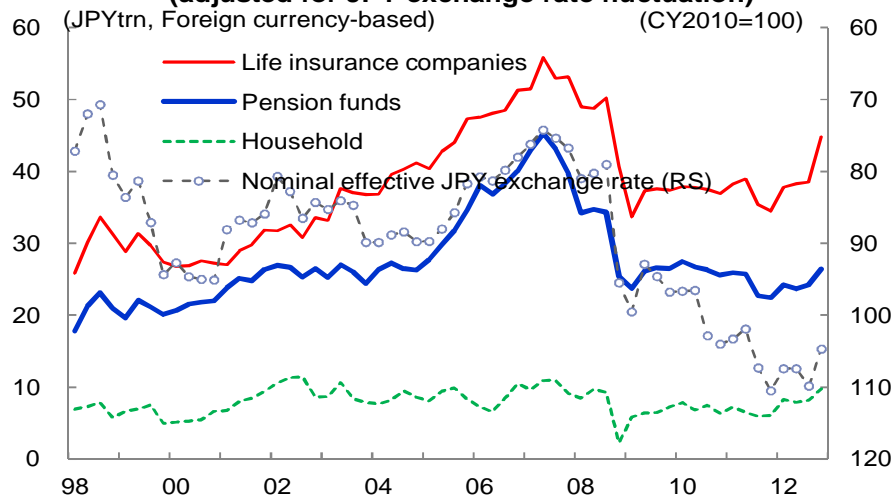
Sources: Bank of Japan, Nikkei NEEDS, DB Global Markets

Equity holding by each sector in TSE 1st section



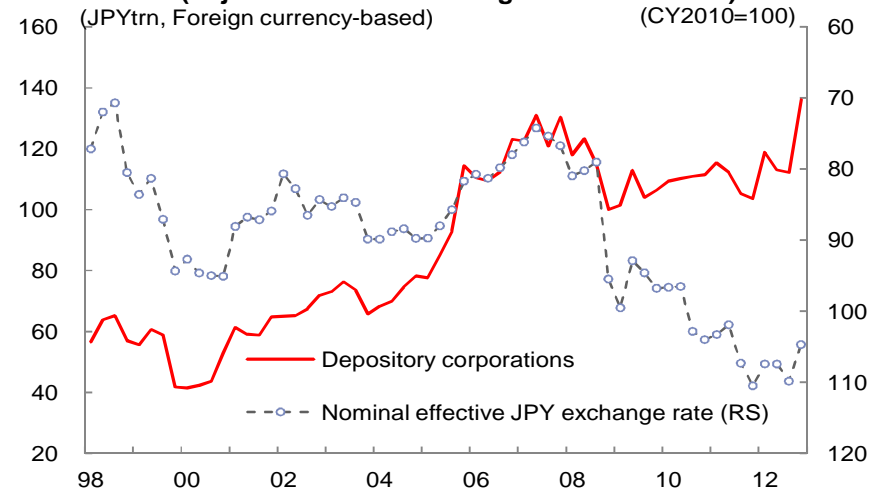
Sources: Bank of Japan, Nikkei NEEDS, DB Global Markets

**Foreign securities held by each sector
(adjusted for JPY exchange rate fluctuation)**



Sources: Bank of Japan, Haver Analytics, DB Global Markets

**Foreign securities held by each sector
(adjusted for JPY exchange rate fluctuation)**

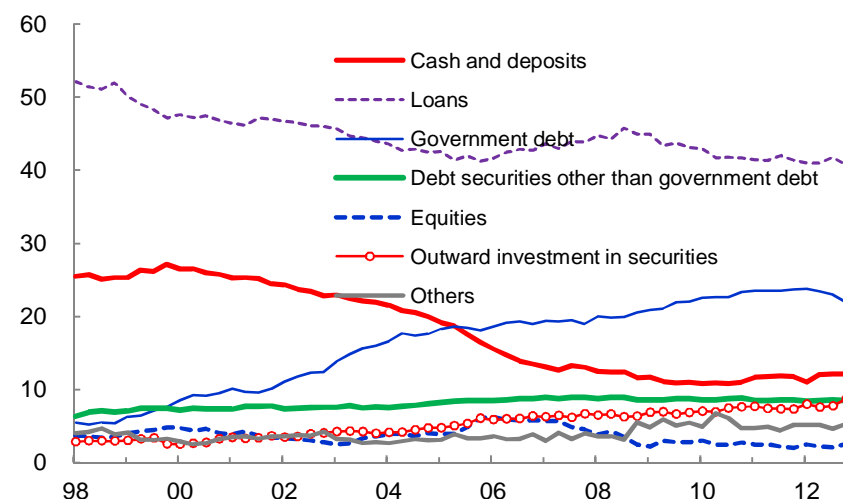


Sources: Bank of Japan, Haver Analytics, DB Global Markets

Composition of financial assets of financial institutions and households

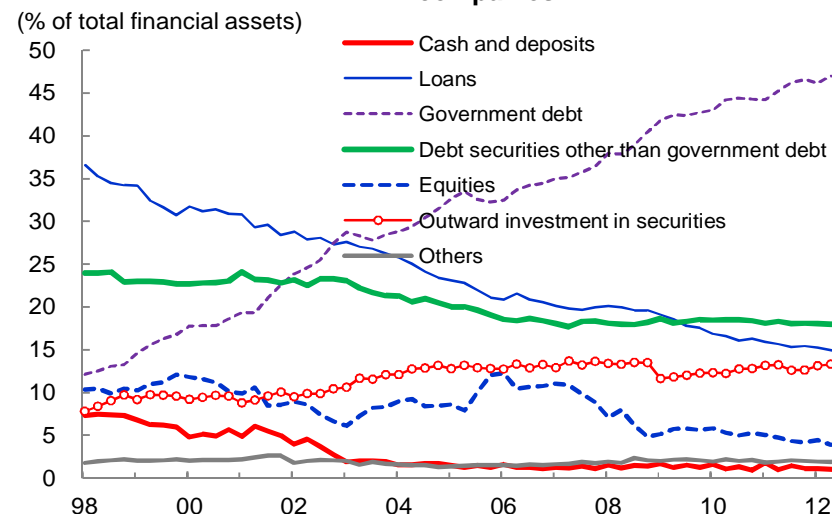


Composition of financial assets held by depository institutions
(% of total financial assets)



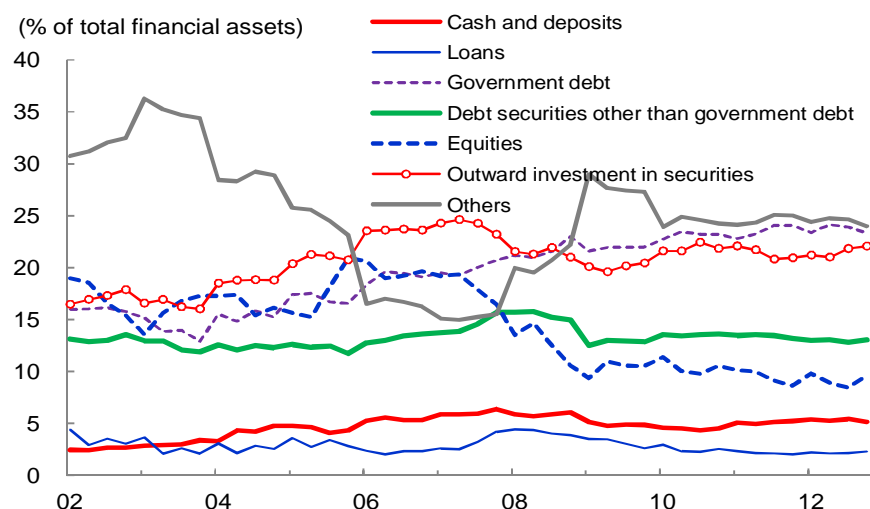
Sources: BoJ, DB Global Markets Research

Composition of financial assets held by life insurance companies
(% of total financial assets)



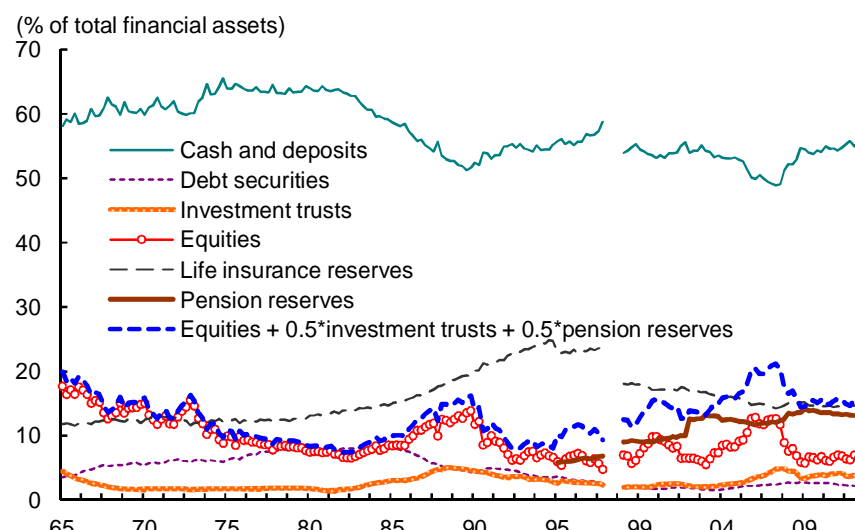
Sources: BoJ, DB Global Markets Research

Composition of financial assets held by pension funds
(% of total financial assets)



Sources: BoJ, DB Global Markets Research

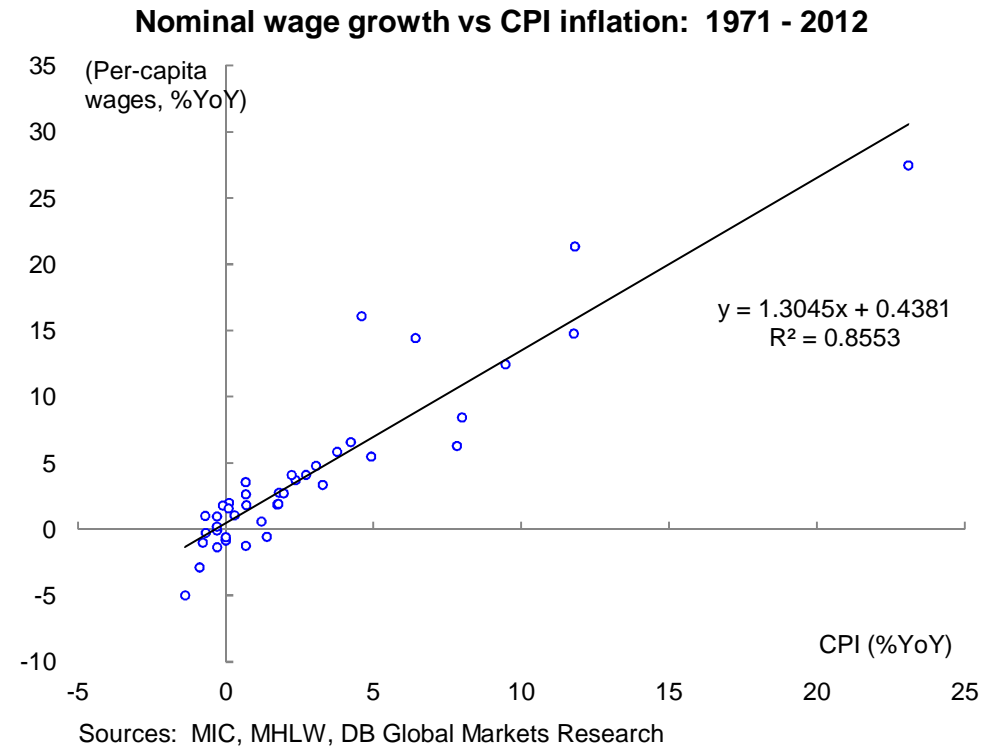
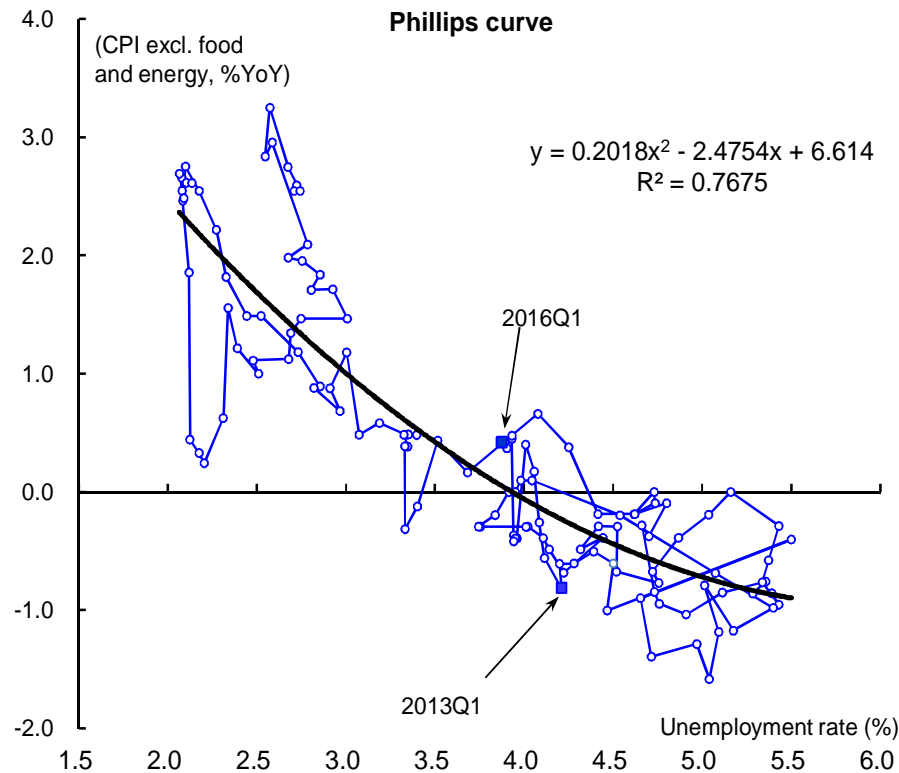
Composition of household financial assets in Japan
(% of total financial assets)



Note: Discontinuity in series in 1998. Sources: BoJ, DB Global Markets Research



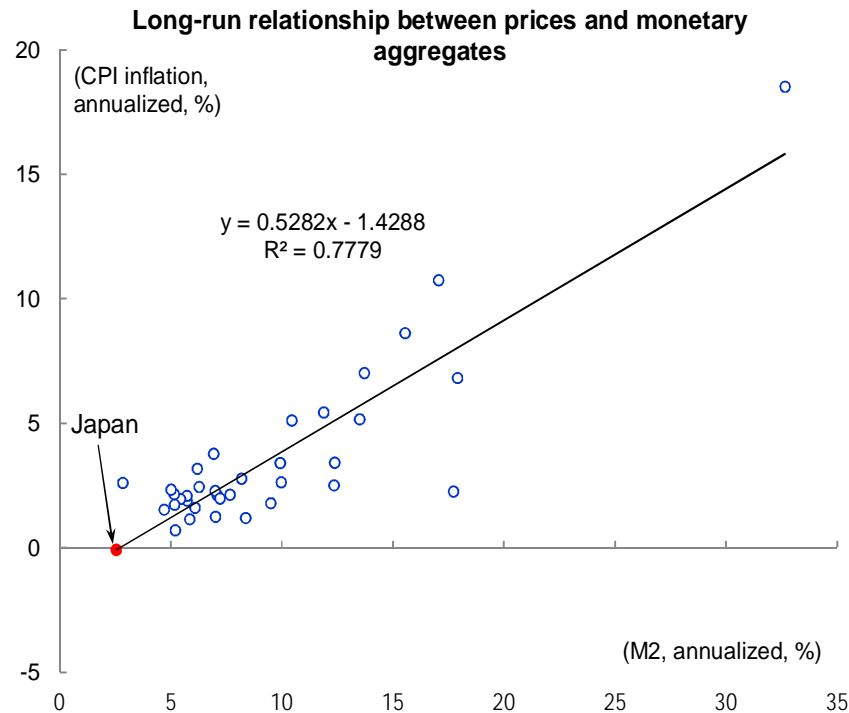
Factors for price determination



Notes: 1) Sample period is 1984Q1 - 2016Q1. 2) DB forecast for 2013Q2- 2016Q1.
Sources: MIC, DB Global Markets Research

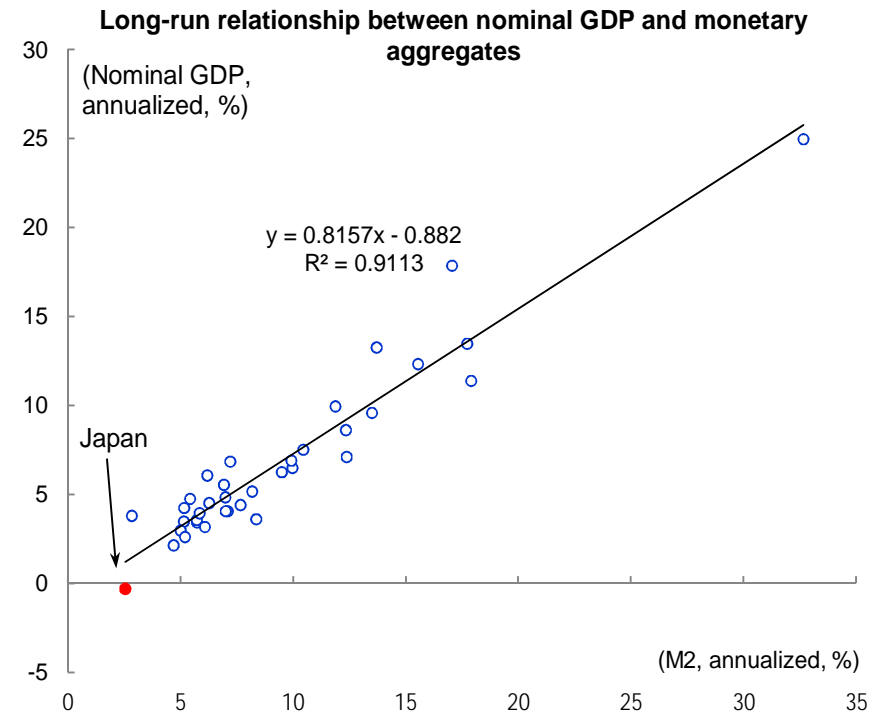


Money supply growth anchors inflation over the long-run



Notes: Number of sample countries=36, Annualized growth between 1995 and 2012. Annualized growth since 1996 or 1997 is used for several countries. M3 growth, instead of M2 growth is used for several countries.

Sources: Datastream, Haver Analytics, DB Global Markets Research



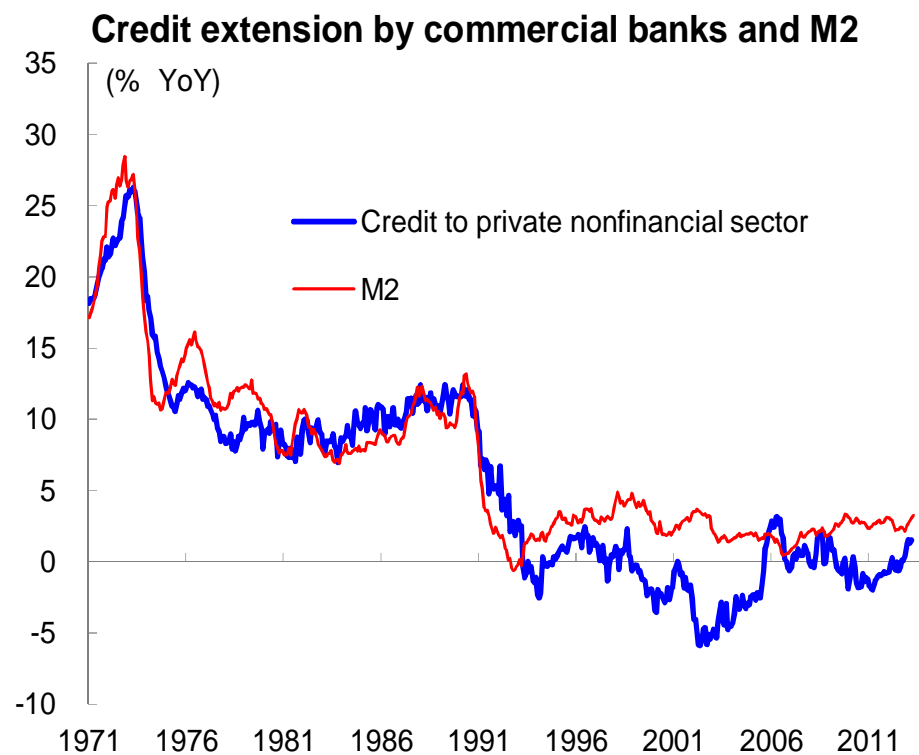
Notes: Number of sample countries=36, Annualized growth between 1995 and 2012. Annualized growth since 1996 or 1997 is used for several countries. M3 growth, instead of M2 growth is used for several countries.

Sources: Datastream, Haver Analytics, DB Global Markets Research

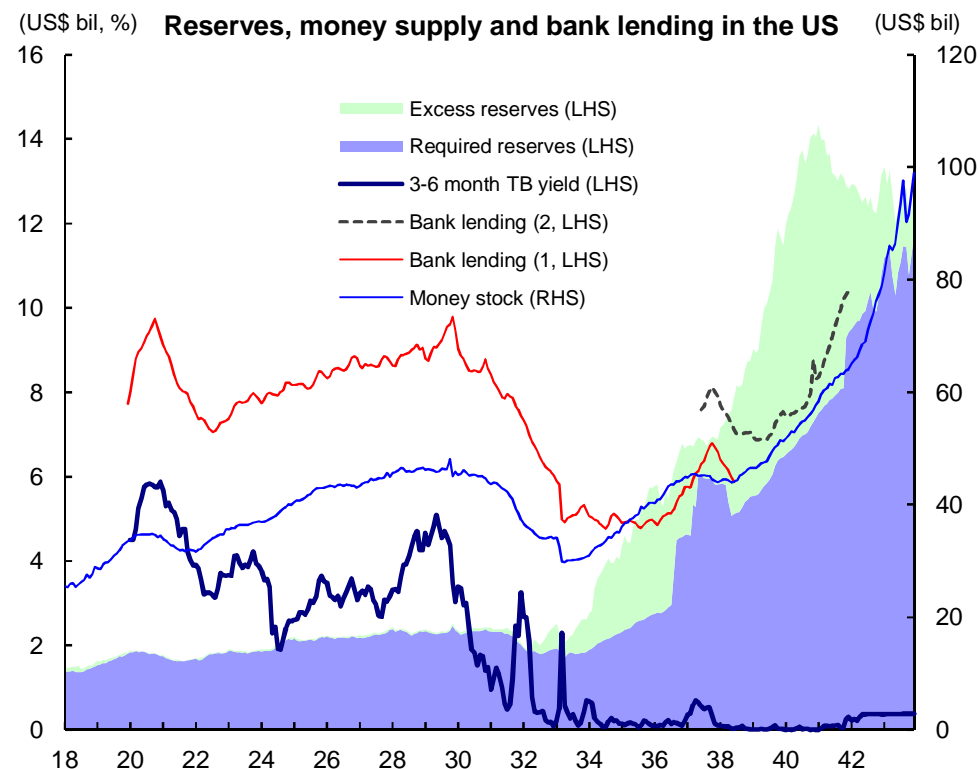
- Japan's deflation is not anomaly under stable long-run relationship among prices, money and nominal GDP in 36 countries.
- M2 growth of 5% under normalization of economic activity represents a success of QE.



Bank lending to be preceded by broad money supply



Sources: Bank of Japan, DB Global Markets Research



Source: NBER Macrobhistory Database: Series m13029a, m13029b, m14064, m14075a, m14075b, m14086a, m14086b, m14144a



Economic growth strategy: Do not hold high expectation

- Growth strategy: 1) deregulation, 2) corporate tax cuts, 3) participation in free trade agreements
- Major deregulation in agriculture, labor market, medical and elderly-care services, and support for start-up companies is needed

Topics to be discussed under growth strategy: Do not hold high expectation

Items that may be published in June 2013

Labor market reforms

- Extend long-term (paid) leave for child care from 18 months to 3 years
- Establish nursery schools for 400,000 kids in five years (200,000 in 2 years)
- Preferential treatment to companies where female managers accounts for 30% or higher

Deregulation and preferential tax treatment under 'national strategic zones'

- Mainly in three large metropolitan areas
- Relaxation of floor-area ratio and usage restriction on land
- Corporate income tax cuts
- Allowing foreign physicians to work in Japan
- Attract top-class foreign schools in Japan
- Development of recreational (leisure) facilities
- Private management of public facilities

Medical services

- Create NIH (National Institute for Health) for medical R&D
- Promote medical equipment sales to foreign countries
- Deregulation in regenerative medicine

Agriculture

- Allow corporations to purchase land (currently only leasing is allowed)
 - Remove upper limit in participation of agricultural cooperatives.
 - Reduce government intervention in demand-supply adjustment in rice production
 - Create 'agricultural export zones'
-

Note: All are still under discussion, not finalized.

Sources: Nihon Keizai Shimbun, Yomiuri Shimbun, DB Global Markets Research.



Exports by commodity and by country

Exports by goods and country in 2012

(USD bn)	Japan	US	Germany	China	Korea	Taiwan
Food, beverage, animals, agriculture, fish and their products	4.45	148.52	82.03	54.62	6.38	4.18
Raw materials	13.28	n.a.	n.a.	n.a.	7.44	n.a.
Mining and products (oil, gas, ores, fuel, petroleum products)	12.85	145.48	34.11	31.05	57.51	n.a.
Textile and products, apparel, leather and products, footwear	7.70	17.55	37.42	303.26	17.05	13.23
Wood and wooden products	n.a.	5.90	7.55	12.33	0.10	0.21
Paper and paper products, printing, publishing products	2.49	30.41	24.39	13.29	3.27	n.a.
Chemical products (excl. pharmaceutical)	79.76	188.56	134.74	113.70	34.06	20.79
Pharmaceutical and medical products	4.02	42.58	71.77	n.a.	1.52	n.a.
Plastic, rubber and products	37.51	73.90	49.09	21.63	35.06	24.19
Ceramics (glass and clay, products)	10.73	10.13	16.61	n.a.	2.16	2.87
Primary metal products (iron, steel, nonferrous metals)	59.62	73.77	74.79	75.57	40.56	28.09
Fabricated metal products	13.14	40.11	47.87	n.a.	11.32	n.a.
General machinery (excl. electrical machinery)	160.95	150.51	211.65	n.a.	49.88	n.a.
Computers, parts, peripheral equipment	18.43	123.46	110.90	n.a.	9.29	n.a.
Electrical equipment and machinery (excl. computers and parts)	142.94	36.91	84.79	475.80	119.24	n.a.
Autos and parts	158.91	116.73	244.86	62.05	69.66	n.a.
Other transport equipment (aircrafts, ships, trains)	21.51	72.93	65.61	45.19	39.78	n.a.
Precision instruments (scientific / medical / optical instruments, watches)	27.44	50.67	n.a.	58.82	31.90	23.35
Photographic supplies, recording tapes	7.32	7.52	n.a.	16.91	5.02	n.a.
Furniture	n.a.	5.73	10.99	n.a.	1.06	n.a.

Notes: Electrical equipment and machinery in China include computers, parts and their peripheral equipment.

2008 data for US aircraft exports.

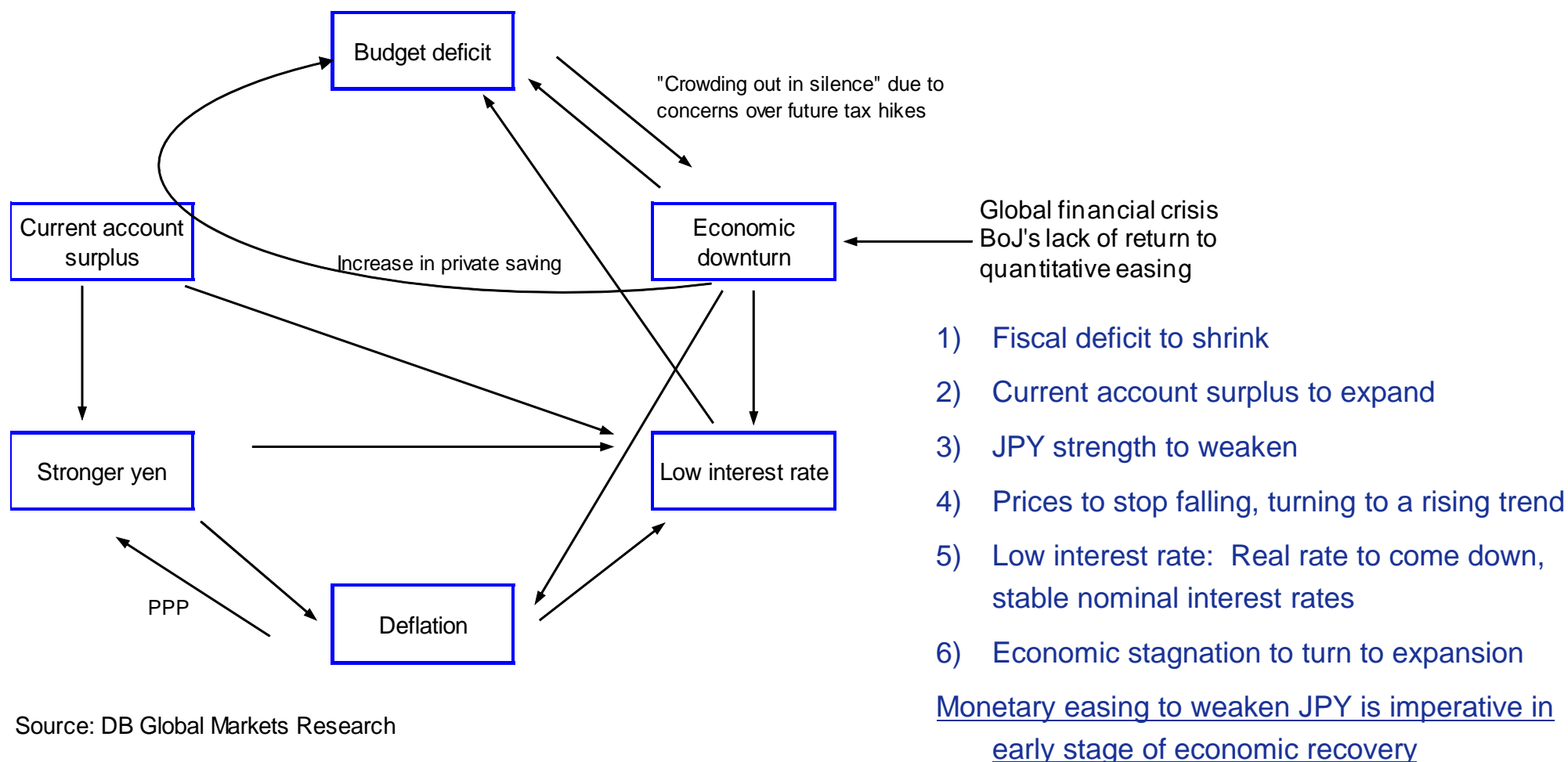
Definition of each grouping differs by country

Sources: Haver Analytics, DB Global Markets Research

Japan's Iron Hexagon



- Six factors mutually reinforce to form a strong shock-absorber.
- Vicious circle (low-welfare stable equilibrium)
- Global economic expansion and the BoJ's aggressive QE would weaken and dissolve this hexagon.



Source: DB Global Markets Research



Reasons crash is unlikely to happen in Japan

	Crash in less developing economies	Perpetual decay in Japan
Exchange rate mechanism	Fixed exchange rate system	Floating exchange rate system
Twin deficits	Yes	No
(1) Budget balance	Deficit	Deficit
(2) Current account balance	Deficit	Surplus
External assets/liabilities	Debtor country	Creditor country
	Financing budget deficit by borrowing from foreign countries in foreign currencies	Financing budget deficit by borrowing from domestic savers in domestic currency
Supply-demand in goods markets	Excess demand	Excess supply
Inflationary pressures	Yes	No
Financial surplus/deficit in domestic economy	Excess demand	Excess supply
Pressures on interest rates	Upward pressures	Downward pressures
Pressures on exchange rate	Overvalued/Need depreciation	Current account surplus/Upward pressures
Capital flight and self-fulfilling depreciation of the currency	Yes	No
Adjustment mechanisms	Devaluation, tightening fiscal/monetary policy lead to inflation, high interest rates and crash	??
	(Lump-sum payment; not allowed to postpone)	Sustained decay (natural death, hibernation) Silent crowding-out (Installment payment; able to postpone)

Source: DB Global Markets Research



Japan crash thesis

Population ageing → decline in household saving rate → deterioration in fiscal balance → current account balance turning into deficit → capital flight and JPY depreciation → borrowing in foreign currency at higher interest rates → accelerating accumulation of government debt → fiscal bankruptcy (Doubt on underlined causality)

Doubts on “Japan crash thesis”: Lack of dynamical aspect

1. Crash thesis requires all malign events to happen simultaneously and sustain themselves: Causality in the underlined section of above is doubtful.
2. Limited effects from demography on household saving rate.
3. Financial surplus/deficit of households and nonfinancial businesses moves to offset each other.
4. Fiscal deficit induces private saving, which in turn limits deterioration in current account balance.
5. Fiscal adjustment is triggered by a rise in interest payments (flow), not by government debt (stock).
6. Japan's current account turning into deficit requires global recession, JPY appreciation, higher oil prices at the same time by 5 standard deviations each. Such a combination is highly unlikely to happen.
7. Capital flight in a creditor country is not self-fulfilling and not sustained. JPY depreciation leads to higher current account surplus, economic recovery, and improvement in fiscal balance.
8. Events which could trigger fiscal adjustment are more likely to take place in the end of the 2020s to the 2030s at the earliest, not in the 2010s, assuming no fiscal austerity measures are to be taken from now.



Identity of saving-investment balance across sectors

$(S-I) + (T-G) = (X-M)$; S-I ... private sector, T-G ... government sector, X-M ... external sector

1) A \$1 fiscal stimulus induces \$0.79 private saving, which leads to limited support to economic activity.

$+0.79 \Delta(S-I) - 1.0 \Delta(T-G) = -0.21 \Delta(X-M)$ Actual relationship observed in advanced countries

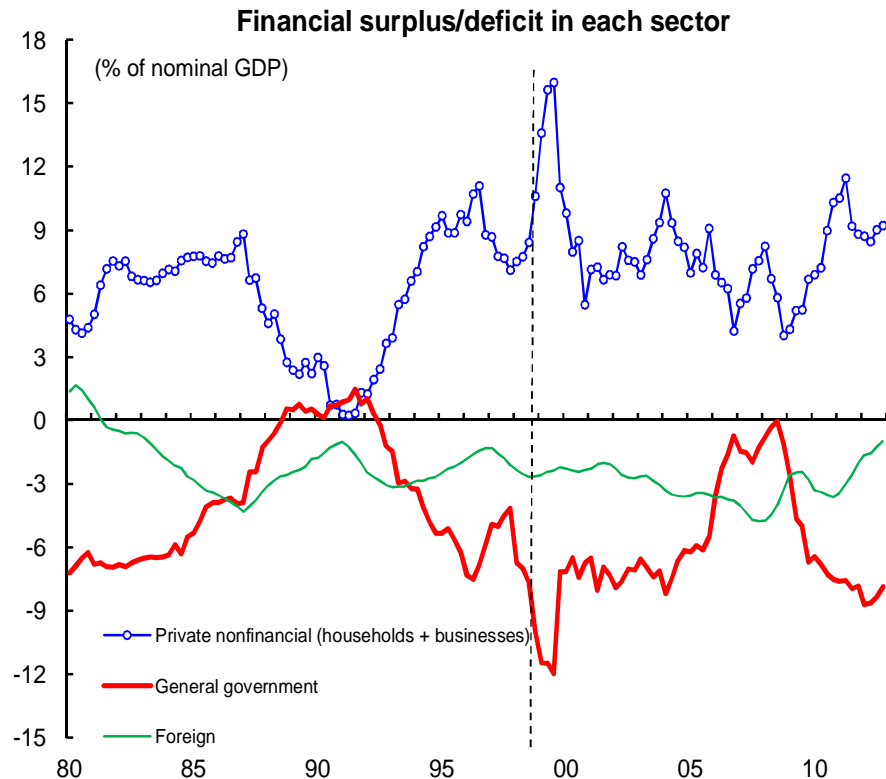
$0.0 \Delta(S-I) - 1.0 \Delta(T-G) = -1.0 \Delta(X-M)$ Relationship assumed under “Japan crash thesis”

(Current account balance deteriorates as much as fiscal balance)

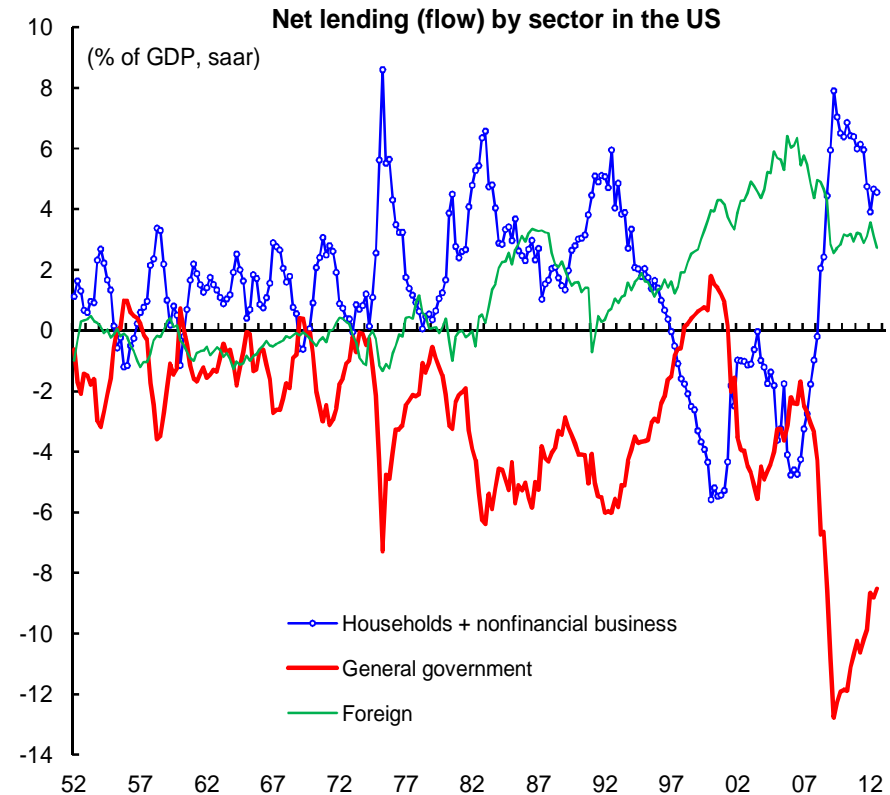
2) Accumulation of government debt further induces private saving, which brings the economy closer to exact “Ricardian Equivalence”.



Relationship among fiscal balance, private saving and current account (1)



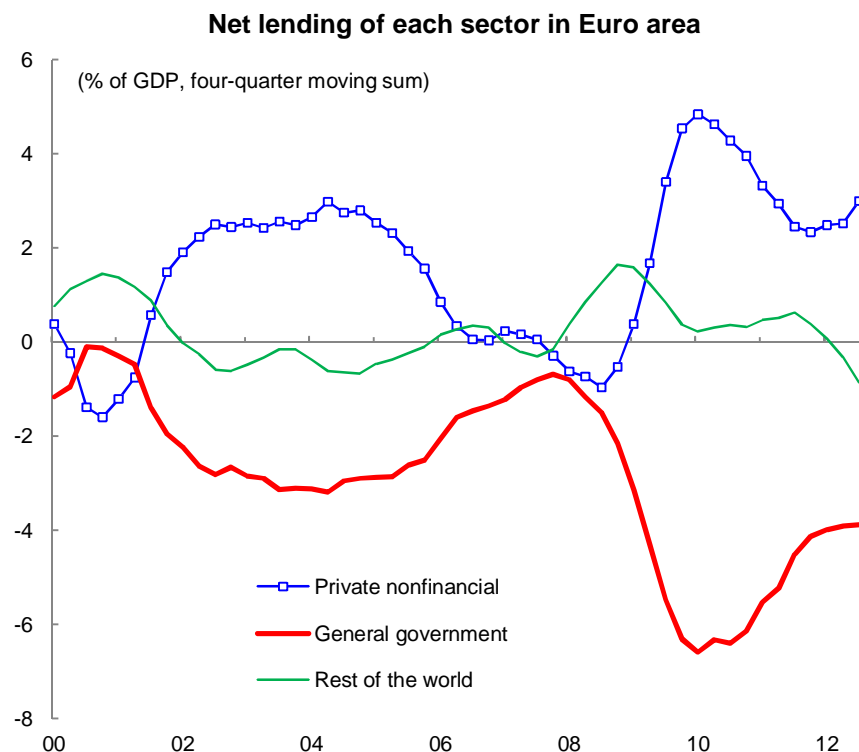
Notes: 1) Old flow of funds statistics up until 3Q 1998. 2) New statistics from 4Q 1998. 3) Four-quarter moving average. 4) Discontinuity from privatization of Japan Highway Public Corporation has been adjusted. Sources: Bank of Japan, Cabinet Office, DB Global Markets Research



Sources: US BEA, Federal Reserve, DB Global Markets Research

- Private and public saving-investment balances are like a mirror image to each other and move in opposite directions. As such, the foreign sector (Japan's current account surplus), the difference between the two, has remained stable.
- There is no stable relationship between household saving rate and current account of the balance of payments.

Relationship among fiscal balance, private saving and current account (2)



Note: Private nonfinancial sector = Nonfinancial businesses + households
Sources: Eurostat, DB Global Markets Research

Correlation coefficient between domestic nonfinancial private sector saving-investment balance (% of GDP) and general government fiscal balance (% of GDP)

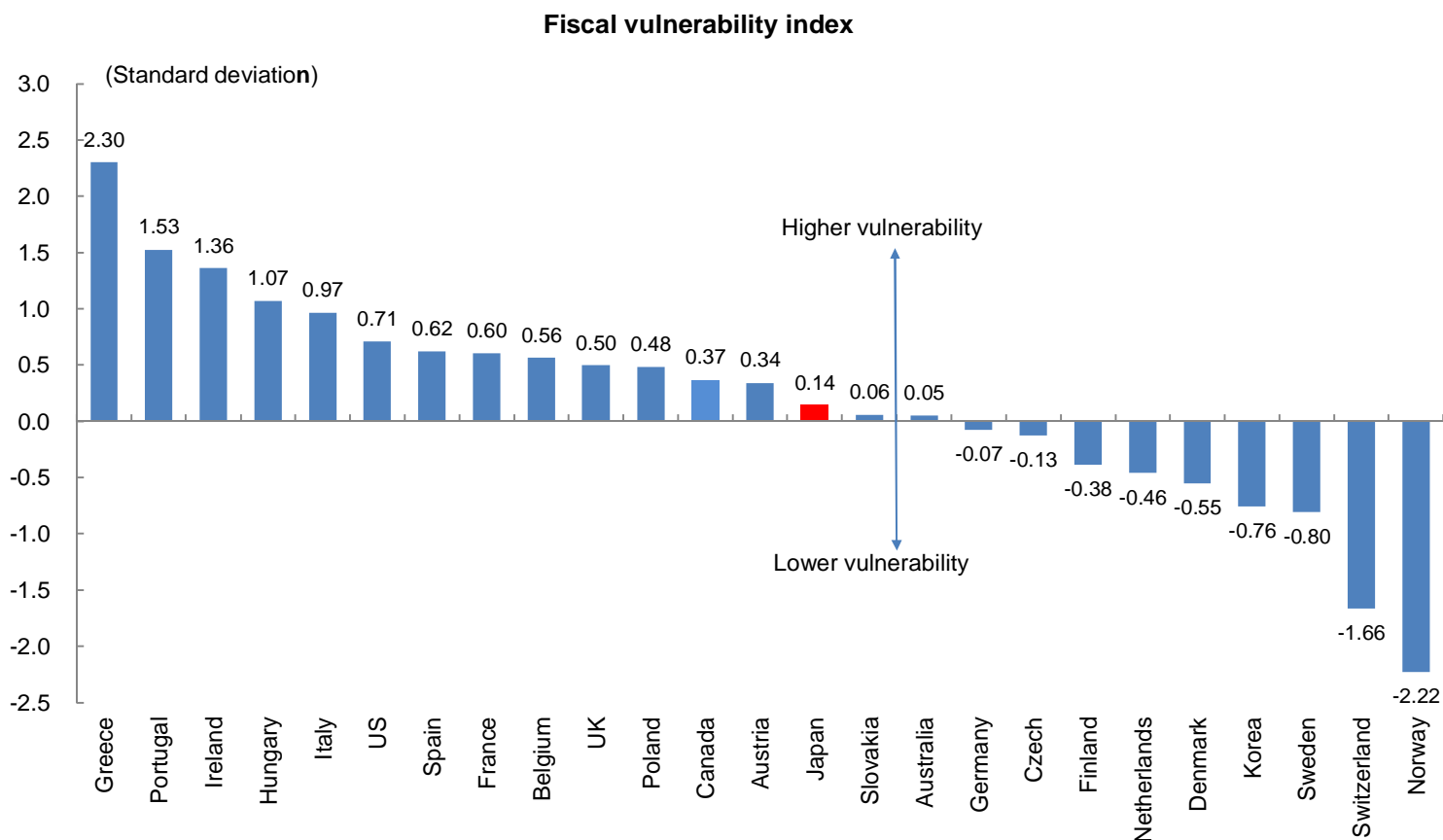
	US	Japan	Euro area
Sample period			
1980Q1 to date	-0.486	-0.806	n.a.
1990Q1 to date	-0.674	-0.859	n.a.
2000Q1 to date	-0.736	-0.714	-0.909

Sources: BoJ, US Federal Reserve, Eurostat, DB Global Markets Research

- A large part of deterioration in fiscal balance accompanies a rise in private saving, thus, nullifying stimulatory effect of fiscal policy.
- Correlation coefficient between fiscal balance and private saving (since 2000Q1) is -0.89 (Euro Area), -0.99 (US), and -0.71 (Japan).
- The higher the government debt-to-GDP ratio, the more exact Ricardian Equivalence does hold.



Vulnerability of general government financing (1)



Notes: Current account balance / GDP, net external assets / GDP, general government net financial liabilities / GDP, nonresident holding of government debt / GDP and gross interest payments of general government / current disbursement. As of 2012Q3 or the latest

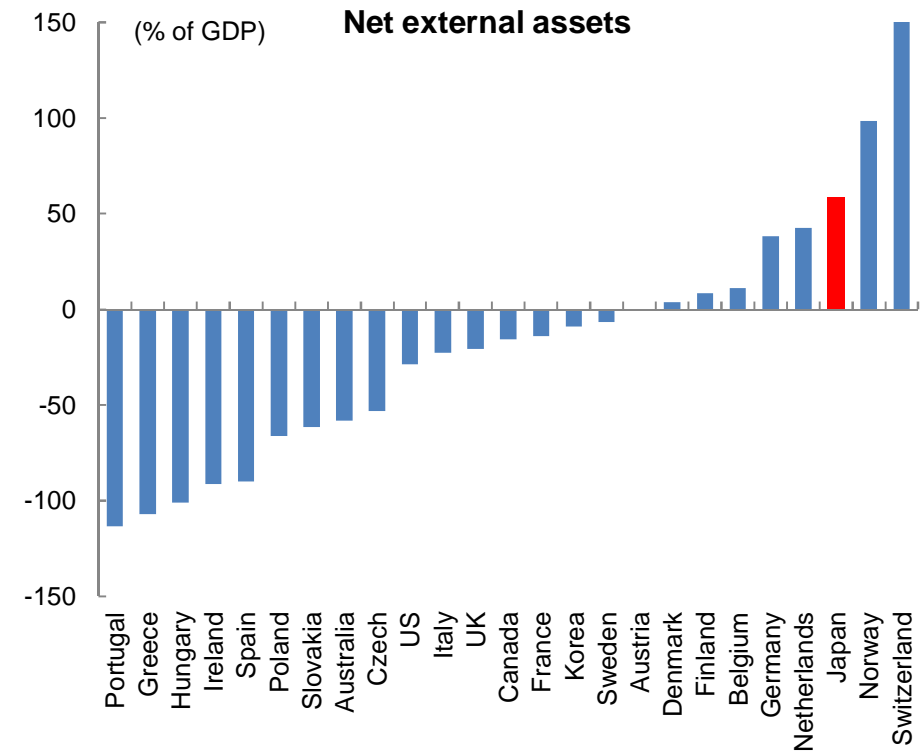
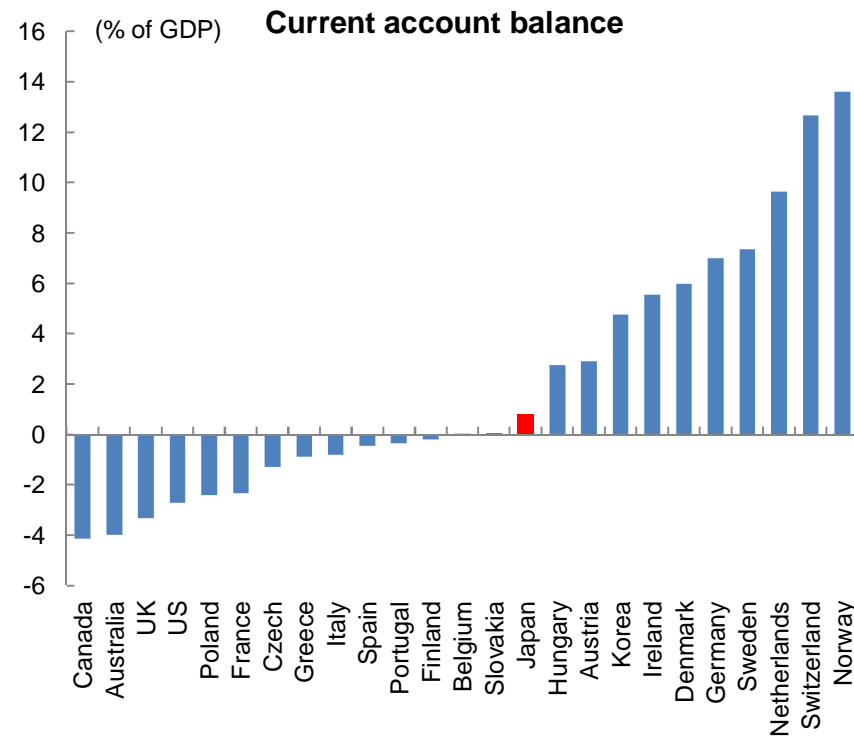
Sources: BIS, Haver Analytics, OECD, DB Global Markets Research.

-Statistically significant effect on sovereign CDS premium from 1) current account balance / GDP, 2) net external assets / GDP, 3) general government net financial liabilities / GDP, 4) nonresident holding of government debt / GDP, and 5) gross interest payments of general government / current disbursement.

- Japan is 14th vulnerable among 25 countries.



Vulnerability of general government financing (2)

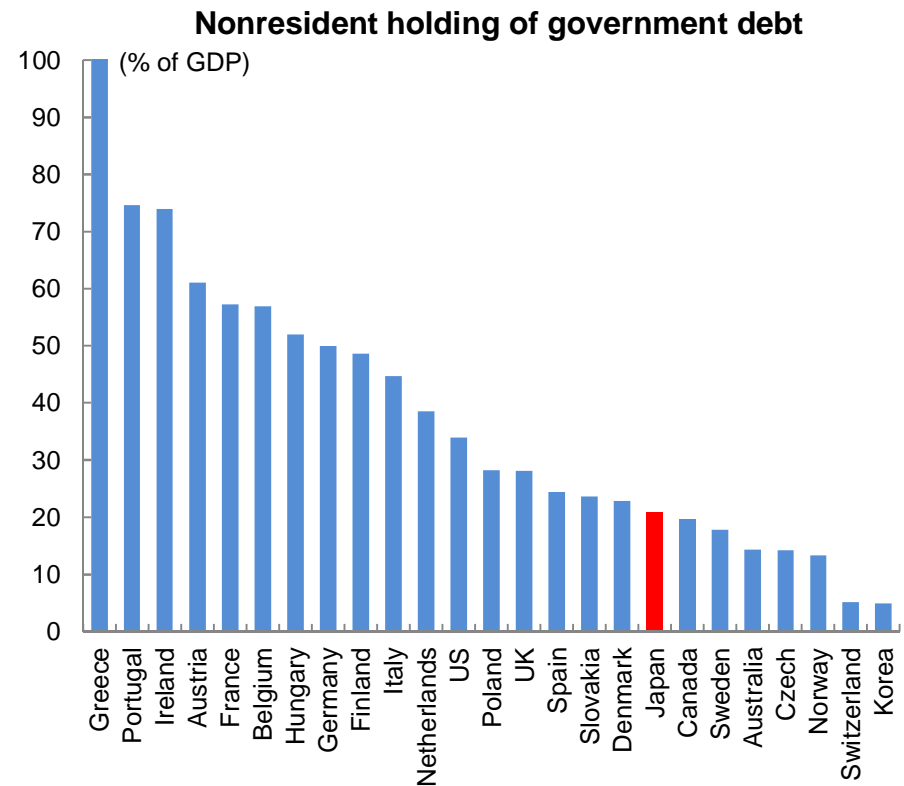
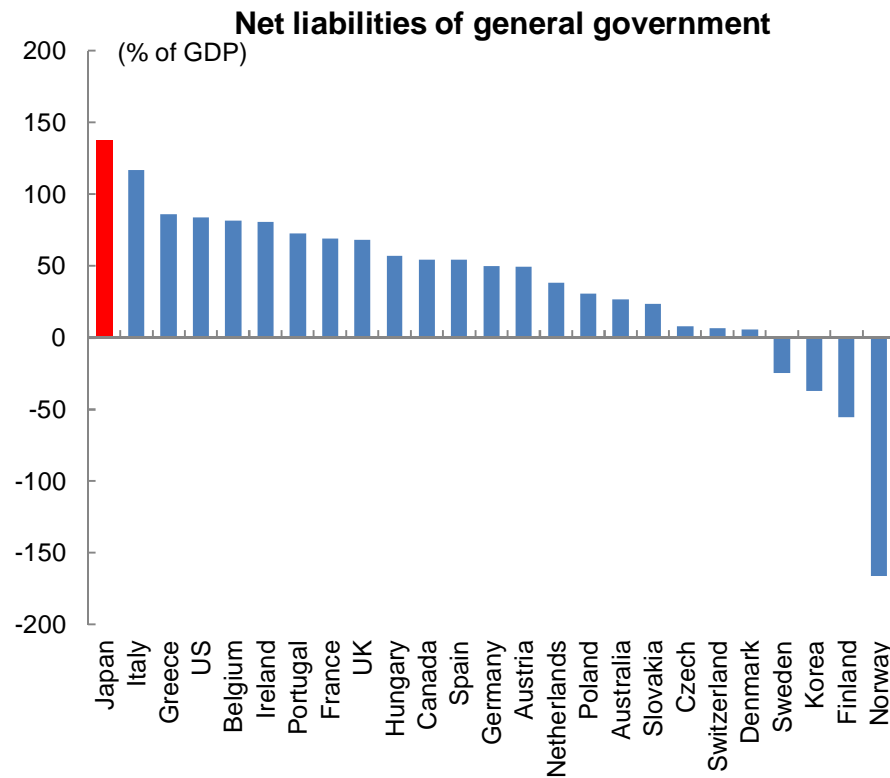


Notes: As of 2012Q3 or the latest

Sources: BIS, Haver Analytics, OECD, DB Global Markets Research.



Vulnerability of general government financing (3)

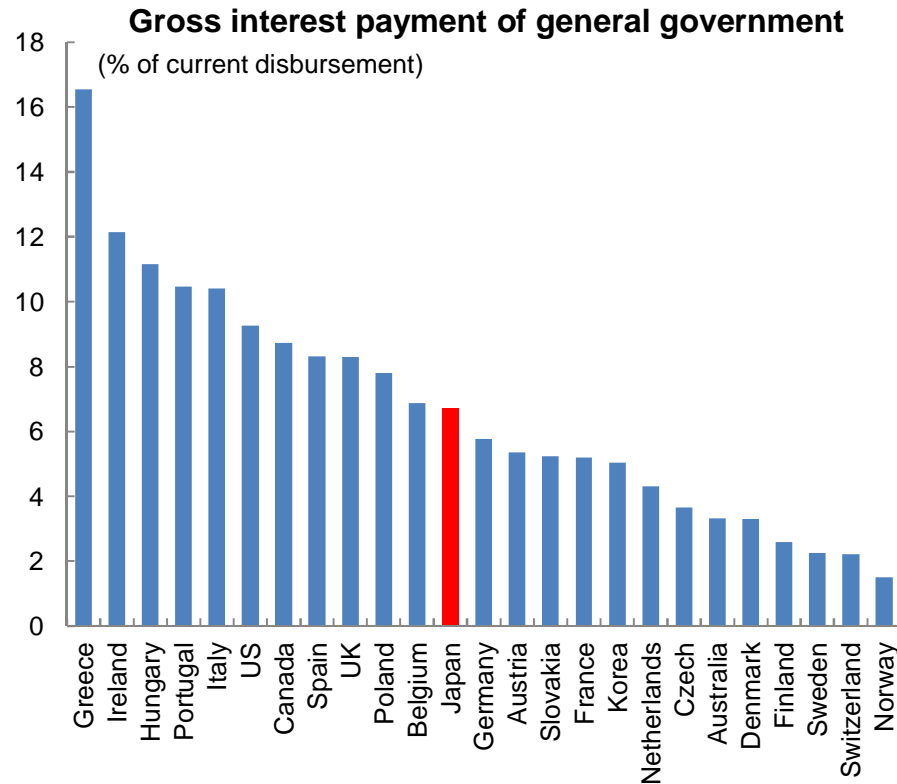


Notes: As of 2012Q3 or the latest

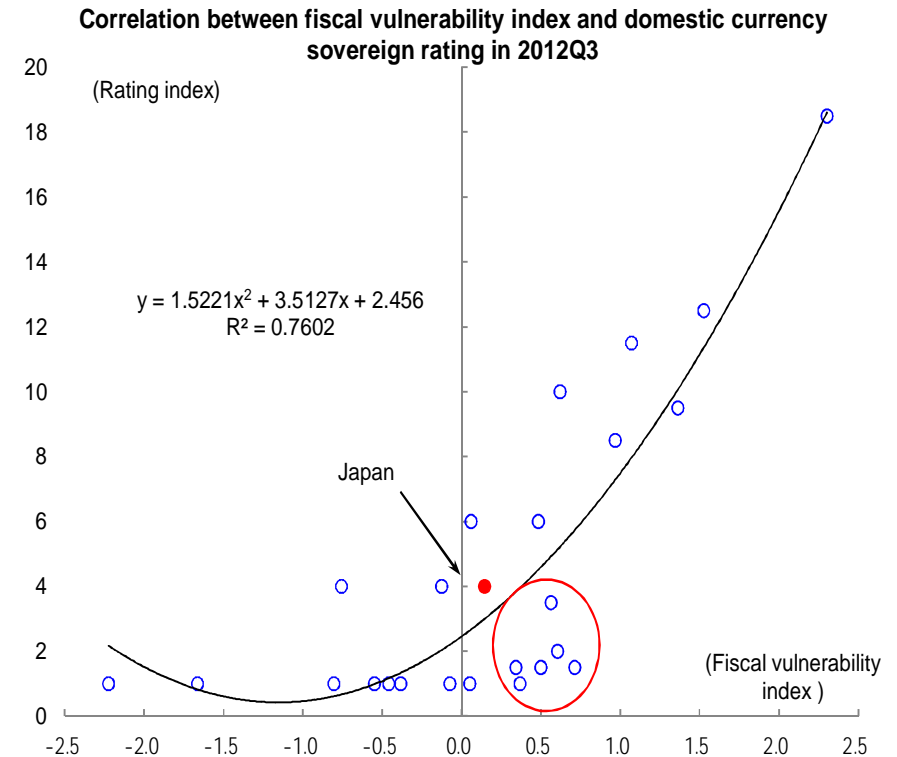
Sources: BIS, Haver Analytics, OECD, DB Global Markets Research.



Vulnerability of general government financing (4)



Notes: As of 2012Q3 or the latest
Sources: BIS, Haver Analytics, OECD, DB Global Markets Research.

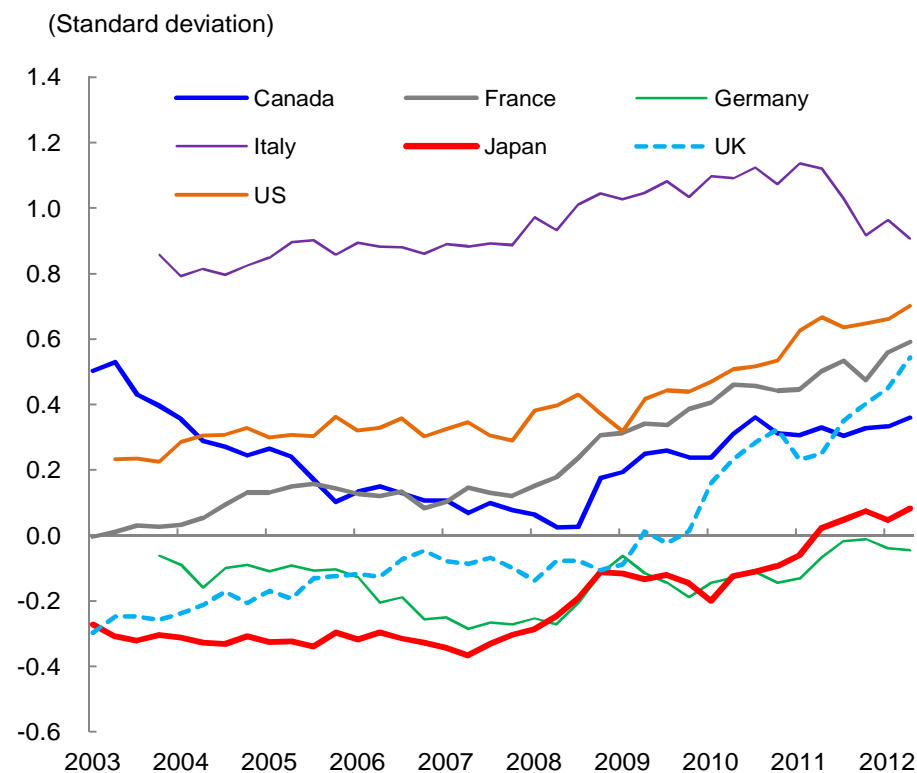


Notes: Current account balance / GDP, net external assets / GDP, general government net financial liabilities / GDP, nonresident holding of government debt / GDP and gross interest payments of general government / current disbursement. Rating: 1 for AAA(Aaa), 2 for AA+(Aa1), 8 for BBB+(Baa1). Sources: Datastream, BIS, Moody's, S&P, Haver Analytics, OECD, DB Global Markets Research.

Vulnerability of general government financing (5)

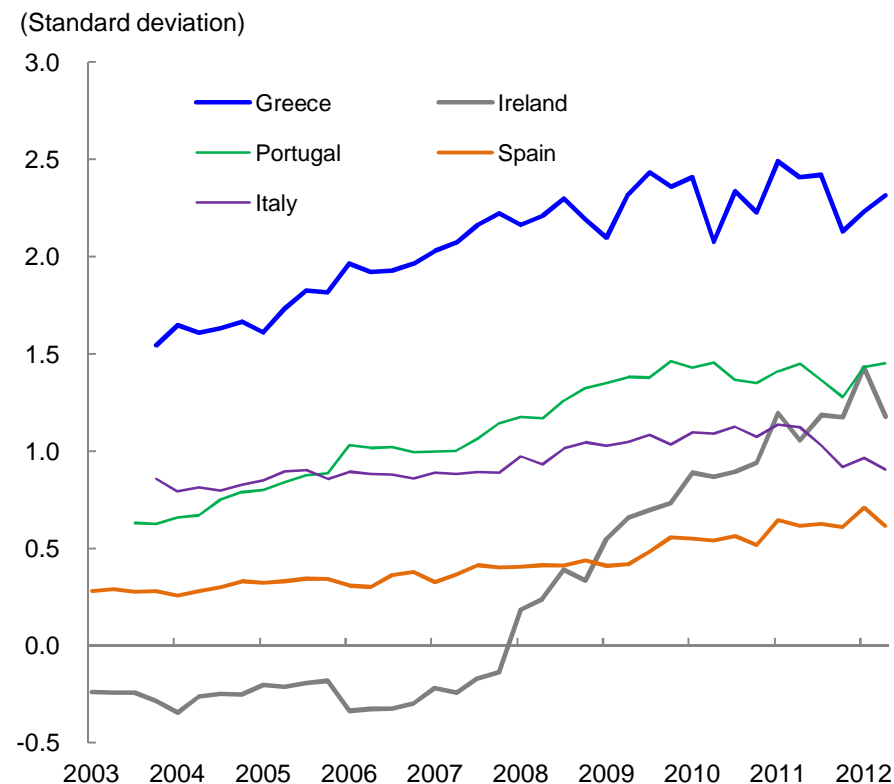


Fiscal vulnerability index: G7



Sources: BIS, Haver Analytics, OECD, DB Global Markets Research.

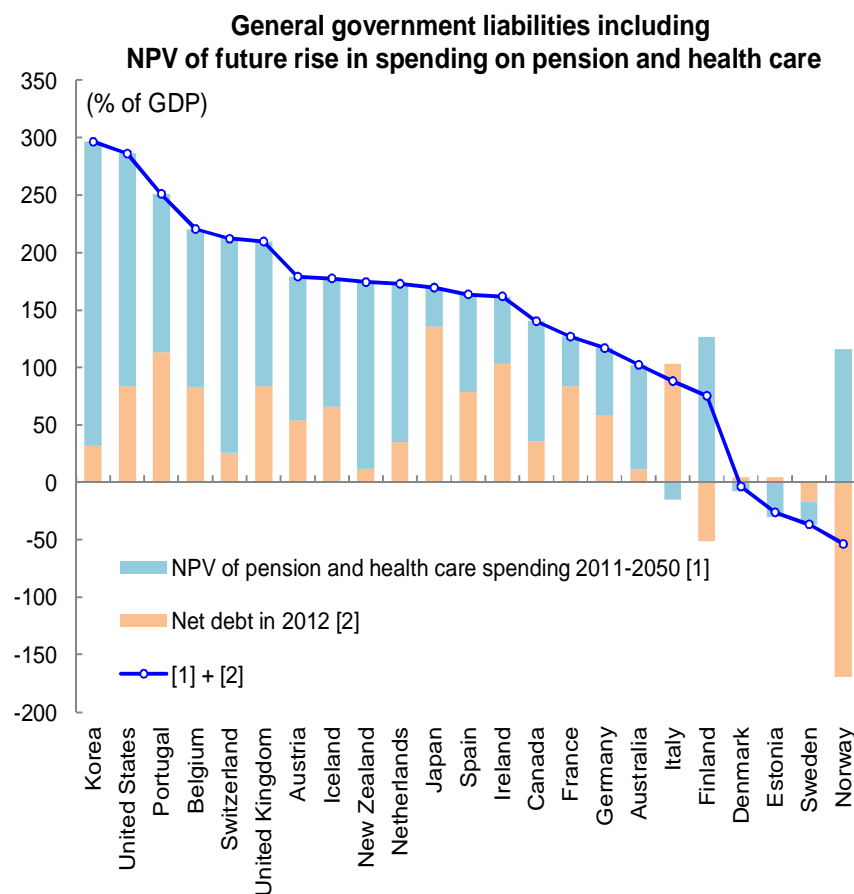
Fiscal vulnerability index: GIIPS



Sources: BIS, Haver Analytics, OECD, DB Global Markets Research.



Vulnerability of general government financing (6)



General government liabilities

(% of GDP)	Net debt in 2012	Net present value of pension spending change, 2011–50	Net present value of health care spending change, 2011–50	[2]+[3]	[1]+[2]+[3]
	[1]	[2]	[3]		
Australia	11.56	23.70	67.00	90.69	102.25
Austria	54.11	20.34	104.65	124.99	179.10
Belgium	82.91	73.31	64.33	137.64	220.55
Canada	35.85	43.31	61.12	104.43	140.28
Czech Republic	...	21.03	17.53	38.56
Denmark	4.15	-29.38	21.55	-7.83	-3.68
Estonia	4.28	-67.60	37.28	-30.32	-26.04
Finland	-51.09	50.01	76.43	126.44	75.36
France	83.74	-0.66	43.79	43.14	126.88
Germany	58.44	30.36	28.08	58.44	116.88
Greece	...	20.99	106.89	127.88
Iceland	65.75	6.86	104.96	111.82	177.57
Ireland	103.04	35.70	23.23	58.93	161.96
Italy	103.07	-33.70	18.79	-14.91	88.17
Japan	135.42	6.52	27.53	34.05	169.47
Korea	32.04	152.48	111.91	264.40	296.43
Netherlands	35.07	58.49	79.32	137.81	172.88
New Zealand	12.12	66.33	95.87	162.20	174.31
Norway	-169.25	63.71	51.96	115.67	-53.59
Portugal	113.16	21.41	116.54	137.94	251.10
Slovak Republic	...	25.51	37.06	62.57
Slovenia	...	101.57	22.20	123.77
Spain	78.63	33.57	51.45	85.02	163.65
Sweden	-17.49	-30.81	11.73	-19.08	-36.57
Switzerland	25.84	58.44	127.73	186.17	212.01
United Kingdom	83.70	12.70	113.27	125.97	209.67
United States	83.77	37.90	164.47	202.37	286.14

Sources: IMF "Fiscal Monitor" December 2012, Statistical Table 4 and 12A
DB Global Markets Research



Problems with 'fiscal bankruptcy thesis' when government debt exceeds household financial assets

- 1) Duality of assets and liabilities (one person's liability is another's asset) is not taken into account.
- 2) Financial assets held by nonfinancial businesses are not taken into account.
- 3) Real assets held by households and nonfinancial businesses are not taken into account.
- 4) It is flow variables, not stock variables, that trigger a default and/or rescheduling.
- 5) The size of the buffer in Japan's domestic private nonfinancial sector is large enough, even compared with other advanced countries.

Net worth of domestic private nonfinancial sector (% of GDP): NW+NFA-GGD

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia	246.7	269.1	248.9	254.8	264.6	269.9	283.6	287.4	234.4	256.1	258.9	231.6
Canada	335.5	330.8	330.4	344.1	367.0	387.3	416.5	425.3	388.9	425.4	412.6	n.a.
Czech	n.a.	n.a.	n.a.	n.a.	359.1	366.0	352.9	340.2	332.4	340.9	343.6	n.a.
Finland	-176.9	-32.0	57.4	75.5	94.8	83.8	80.8	52.0	127.4	139.1	118.6	n.a.
France	557.5	521.3	506.5	552.8	600.2	667.6	727.3	741.6	637.1	679.0	720.1	n.a.
Germany	339.9	347.3	311.2	324.1	330.1	359.3	357.5	370.7	355.2	397.6	n.a.	n.a.
Hungary	232.1	226.7	211.1	186.1	165.6	154.2	150.1	148.0	131.6	139.5	n.a.	n.a.
Japan	455.1	458.1	444.8	430.5	418.6	397.5	415.1	434.7	449.6	471.2	445.0	n.a.
Korea	n.a.	n.a.	446.7	485.7	511.3	547.0	566.3	590.6	561.4	590.3	n.a.	n.a.
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	396.3	416.5	410.6	371.7	448.9	474.7	n.a.
UK	386.3	345.9	294.5	300.1	283.5	296.0	282.2	289.6	276.5	286.3	n.a.	n.a.
US	516.6	492.8	463.8	502.7	529.6	574.8	597.7	574.3	428.7	440.9	455.7	n.a.

Note: NW Net worth of households and private nonfinancial businesses

NFA Net foreign assets

GGD General government gross debt

Sources: Haver Analytics, DB Global Markets Research

Private domestic nonfinancial sector's buffer against expanding government debt (2)



Domestic private nonfinancial sector gross financial assets + net external assets - general government gross debt (% of GDP)

	2001Q4	2002Q4	2003Q4	2004Q4	2005Q4	2006Q4	2007Q4	2008Q4	2009Q4	2010Q4	2011Q4	2012Q1	2012Q2	2012Q3
Australia	164.2	169.5	183.2	198.5	207.3	226.3	243.6	196.0	212.0	203.3	180.2	182.5	186.9	191.6
Austria	n.a.	n.a.	n.a.	n.a.	n.a.	185.0	205.8	198.7	212.5	209.2	212.4	n.a.	n.a.	n.a.
Belgium	n.a.	433.0	465.4	463.2	471.8	521.0	557.9	541.2	573.6	568.4	584.9	603.1	606.0	611.4
Canada	223.8	197.9	220.6	238.8	259.8	289.0	308.8	270.6	289.0	297.4	280.9	284.4	280.9	281.1
Czech Republic	n.a.	n.a.	n.a.	135.3	141.1	129.4	126.5	125.0	121.7	118.0	117.3	113.5	114.5	114.7
Denmark	208.5	197.8	227.1	272.5	368.9	445.5	413.6	317.3	361.3	405.1	389.8	412.1	402.8	409.8
Finland	94.6	136.9	161.6	180.2	193.9	207.7	194.4	215.1	232.7	249.5	238.2	231.9	230.6	235.0
France	329.4	283.6	295.1	298.8	331.1	365.9	375.1	298.9	337.1	340.0	315.3	n.a.	n.a.	n.a.
Germany	254.9	222.9	233.6	239.5	259.3	256.8	268.1	253.5	269.7	253.2	246.7	253.8	250.3	257.0
Greece	42.6	0.1	-6.3	-12.2	-0.8	-14.0	-15.6	-46.4	-62.3	-73.9	-40.2	-64.1	-76.8	-83.9
Hungary	-10.5	-8.0	-14.4	-22.5	-22.3	-24.0	-19.2	-29.2	-28.5	-21.1	-17.3	-19.8	-18.9	-21.6
Ireland	n.a.	211.1	223.1	244.8	283.6	332.6	321.9	310.4	378.5	413.7	362.3	n.a.	n.a.	n.a.
Italy	221.5	208.1	211.7	223.4	233.5	237.0	224.9	213.6	205.4	202.8	199.9	190.0	190.8	186.5
Japan	315.1	307.0	322.4	326.3	356.5	374.2	356.2	315.3	340.6	329.7	321.2	334.4	321.3	323.1
Korea	n.a.	212.3	217.9	219.4	224.6	237.8	250.9	260.0	269.1	269.2	273.2	278.4	279.7	287.2
Netherlands	n.a.	n.a.	n.a.	n.a.	374.0	396.6	390.9	356.8	424.9	443.9	473.6	n.a.	n.a.	n.a.
Norway	216.7	211.2	222.5	221.3	242.5	248.8	252.1	253.5	307.1	309.2	312.2	310.1	313.5	318.6
Poland	n.a.	n.a.	26.8	28.9	35.2	37.6	46.6	25.9	26.5	28.2	24.1	19.2	19.1	17.4
Portugal	180.3	154.9	164.5	160.8	160.4	146.7	143.0	127.0	116.8	120.9	116.9	105.1	95.9	90.7
Slovakia	n.a.	n.a.	n.a.	44.2	31.1	31.2	38.6	28.7	27.9	30.3	41.2	38.8	26.7	n.a.
Spain	231.8	212.8	232.5	233.5	258.2	288.4	274.9	219.8	200.2	198.9	166.8	161.4	154.8	154.0
Sweden	324.6	303.3	313.2	294.0	343.9	327.1	349.9	354.9	402.1	398.0	406.7	n.a.	n.a.	n.a.
Switzerland	556.3	518.9	542.6	547.4	589.1	606.7	622.4	540.8	612.4	598.9	n.a.	n.a.	n.a.	n.a.
UK	346.5	307.9	318.5	314.5	336.0	338.0	344.0	350.2	326.8	333.6	310.9	315.1	303.4	306.1
US	350.6	316.1	339.1	357.8	374.9	394.1	404.7	318.5	334.6	338.1	317.9	n.a.	n.a.	n.a.

Sources: BoJ, Federal Reserve, Eurostat, DB Global Markets Research

Private domestic nonfinancial sector's buffer against expanding government debt (3)

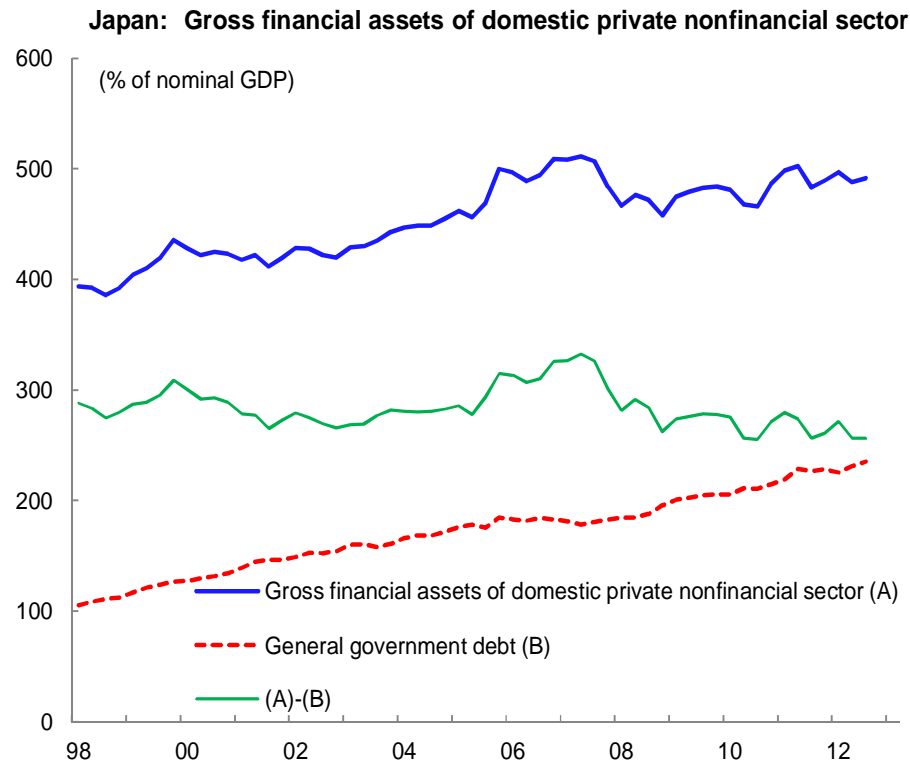


Net foreign assets (% of GDP)														
	2001Q4	2002Q4	2003Q4	2004Q4	2005Q4	2006Q4	2007Q4	2008Q4	2009Q4	2010Q4	2011Q4	2012Q1	2012Q2	2012Q3
Australia	-45.6	-48.8	-50.2	-52.6	-52.6	-54.5	-54.9	-55.4	-59.9	-54.7	-56.9	-58.5	-57.8	-58.3
Austria	-26.1	-20.2	-14.3	-17.1	-21.5	-20.2	-17.9	-17.2	-7.9	-7.9	-2.3	-2.0	-1.4	-0.6
Belgium	n.a.	39.0	37.6	23.3	20.5	13.5	29.6	42.7	25.7	16.4	22.3	17.8	14.8	11.2
Canada	-20.5	-19.5	-20.4	-15.0	-12.9	-7.9	-10.1	-4.1	-10.1	-11.4	-12.0	-13.3	-13.3	-15.7
Czech Republic	-9.7	-15.2	-19.2	-27.2	-26.3	-31.3	-37.8	-40.5	-45.9	-48.1	-48.9	-51.4	-51.4	-53.2
Denmark	-27.3	-30.3	-27.7	-19.9	-9.7	-10.8	-15.5	-11.2	-19.1	-11.3	-0.1	1.0	1.0	3.8
Finland	-81.9	-36.5	-26.1	-9.8	-15.1	-13.5	-27.2	-9.9	0.0	11.5	13.0	6.1	8.2	8.6
France	12.3	-2.2	-2.3	-5.2	-0.6	-2.9	-4.2	-12.2	-11.2	-11.9	-12.0	-12.6	-13.3	-13.9
Germany	8.6	5.0	6.5	10.7	20.9	27.4	26.2	25.9	33.3	34.4	32.5	34.8	36.5	38.1
Greece	-46.5	-52.9	-58.9	-67.0	-77.3	-85.4	-96.1	-76.8	-86.3	-98.4	-86.1	-99.0	-102.4	-107.1
Hungary	-65.4	-63.7	-74.0	-85.2	-91.3	-100.9	-103.9	-107.6	-116.3	-111.7	-104.6	-106.4	-102.7	-101.2
Ireland	-14.8	-17.2	-19.0	-17.4	-23.7	-5.3	-19.3	-78.3	-95.8	-92.1	-95.0	-94.9	-92.7	-91.3
Italy	-5.8	-12.3	-13.5	-15.7	-16.5	-21.8	-24.2	-24.4	-25.3	-23.8	-20.7	-24.2	-21.7	-22.5
Japan	35.5	34.6	34.0	36.6	35.4	41.6	48.3	45.7	55.1	51.2	52.2	55.0	56.7	58.1
Korea	-11.4	-10.0	-9.6	-7.7	-16.5	-15.2	-17.0	-9.1	-11.1	-13.0	-7.7	-10.2	-8.2	-9.0
Netherlands	-13.2	-24.0	-1.7	3.7	-2.6	3.2	-5.9	4.2	16.6	22.4	35.5	38.0	40.3	42.7
Norway	27.0	26.1	42.4	41.5	53.1	57.1	49.6	59.1	80.5	86.8	87.5	91.3	94.5	98.5
Poland	n.a.	n.a.	-43.2	-44.5	-46.0	-52.5	-55.4	-58.7	-63.0	-65.3	-63.7	-66.5	-66.0	-66.3
Portugal	-45.1	-55.0	-57.3	-62.3	-66.6	-77.5	-87.7	-96.9	-109.7	-107.0	-106.3	-107.4	-111.7	-113.5
Slovakia	-25.4	-21.5	-32.1	-38.2	-46.9	-51.2	-49.7	-58.4	-66.1	-65.4	-63.1	-62.2	-61.4	n.a.
Spain	-33.5	-37.4	-42.0	-49.7	-54.6	-64.7	-76.9	-80.1	-92.6	-86.5	-90.2	-89.6	-88.1	-89.9
Sweden	-14.8	-18.5	-16.0	-20.7	-12.4	-29.0	-9.9	-16.9	-12.6	-15.9	-11.9	-10.0	-8.4	-6.6
Switzerland	122.6	121.8	124.4	122.8	128.7	122.6	140.7	116.8	140.6	135.3	140.7	143.6	147.2	150.4
UK	-13.2	-10.3	-9.4	-17.8	-20.9	-28.2	-22.8	-5.9	-27.2	-19.6	-17.1	-17.9	-22.6	-20.5
US	-18.1	-19.0	-18.3	-18.6	-15.0	-16.1	-12.6	-23.2	-16.4	-16.8	-26.3	-27.2	-27.9	-28.6

Sources: BoJ, Federal Reserve, Eurostat, DB Global Markets Research

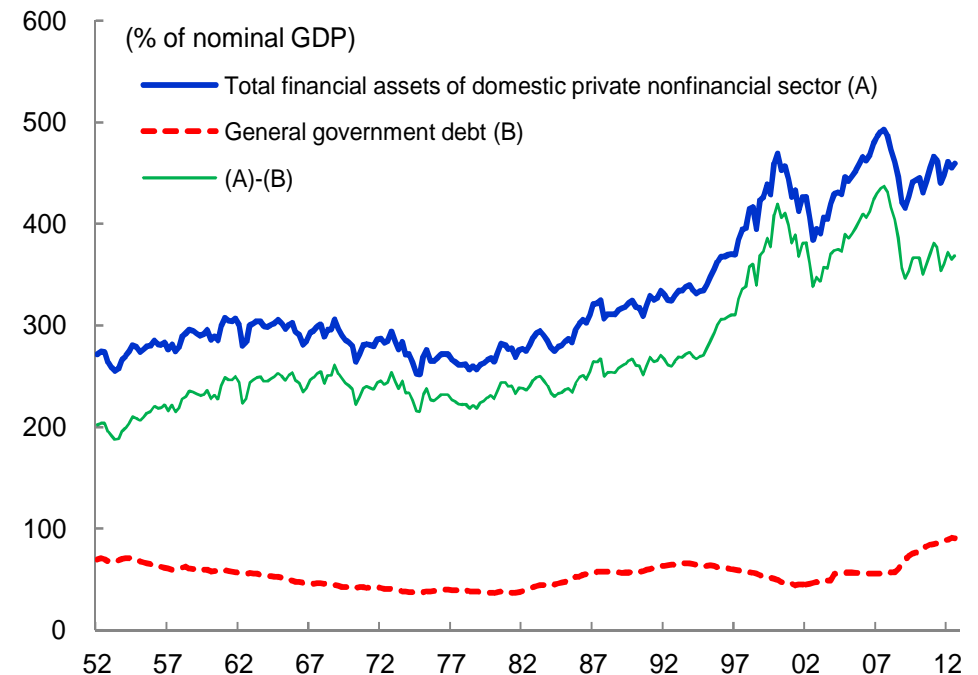


Gross financial assets of domestic private nonfinancial sector (1)



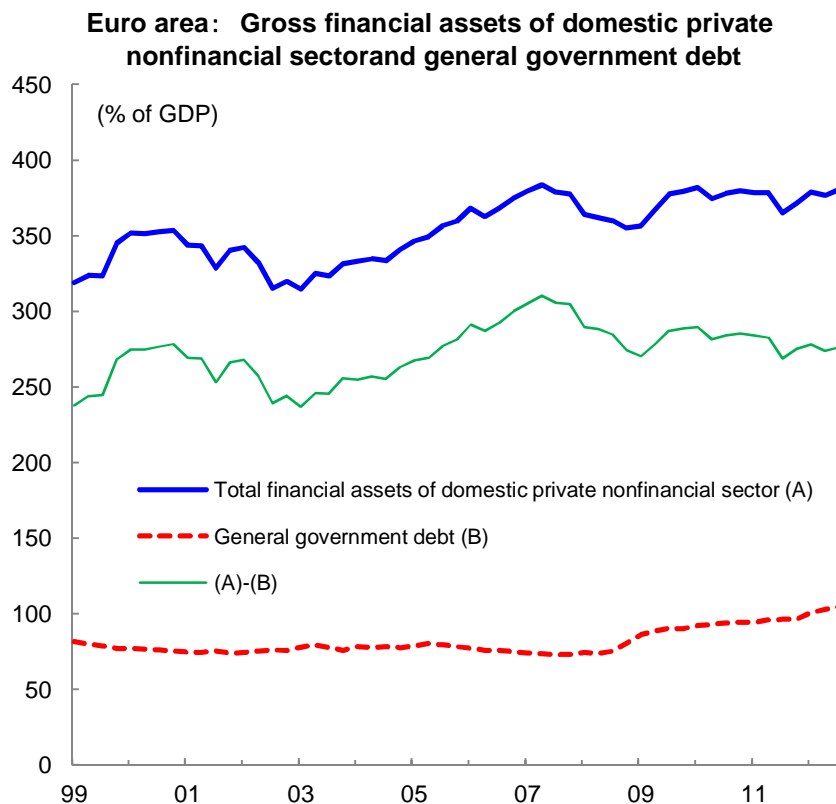
Sources: Bank of Japan, Cabinet Office, DB Global Markets Research

US: Gross financial assets of domestic private nonfinancial sector and general government debt

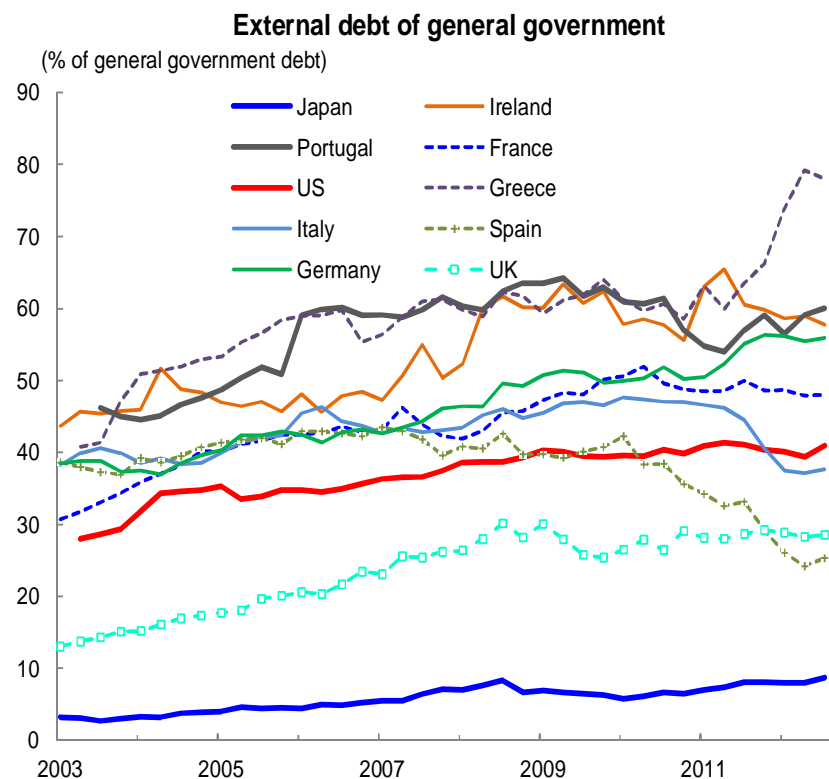


Sources: US BEA, Federal Reserve, DB Global Markets Research

Gross financial assets of domestic private nonfinancial sector (2)

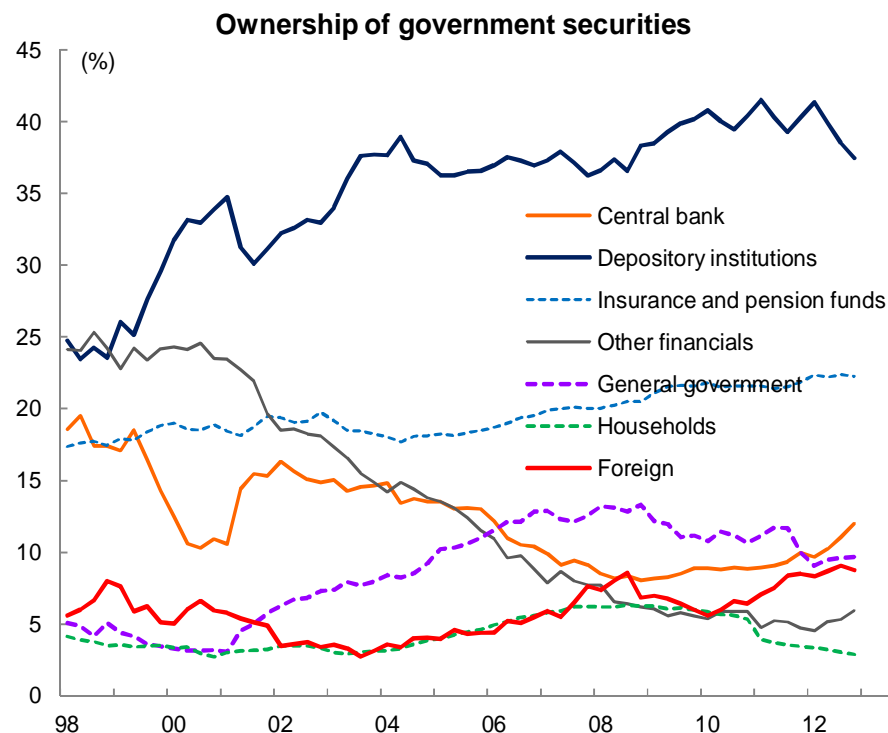


Sources: Eurostat, DB Global Markets Research

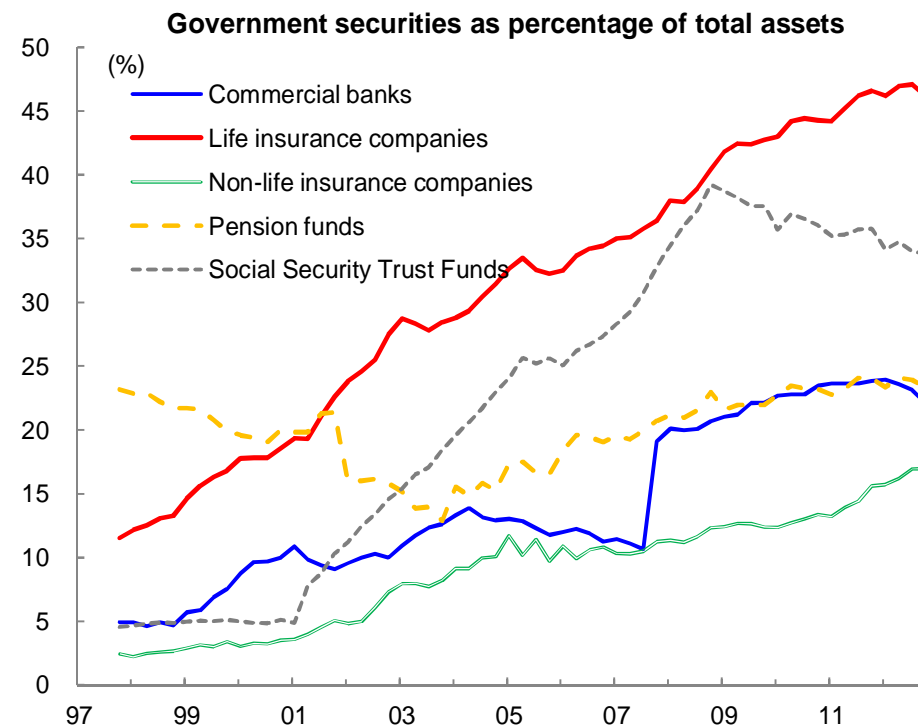


Sources: World Bank, BIS, OECD, Haver Analytics, national sources, DB Global Markets Research.

Government debt holding by sectors



Notes: Government securities include Treasury bills and FILP bonds.
General government includes social security funds.
Sources: BoJ, DB Global Markets Research



Sources: BoJ, DB Global Markets Research



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Appendix 1

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