INTERNATIONAL MONETARY FUND

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JAPAN

2012 ARTICLE IV CONSULTATION

August 2012

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2012 Article IV consultation with Japan, the following documents have been released and are included in this package:

- **Staff Report** for the 2012 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on June 12, 2012, with the officials of Japan on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on July 10, 2012. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.
- **Informational Annex** prepared by the IMF.
- **Public Information Notice** (PIN) summarizing the views of the Executive Board as expressed during its July 25, 2012 discussion of the staff report that concluded the Article IV consultation.

The documents listed below have been or will be separately released.

Financial Sector Stability Assessment
Selected Issues Paper

The policy of publication of staff reports and other documents allows for the deletion of market-sensitive information.

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INTERNATIONAL MONETARY FUND

JAPAN

STAFF REPORT FOR THE 2012 ARTICLE IV CONSULTATION

July 10, 2012

KEY ISSUES

The Japanese economy is experiencing a domestic-led recovery, but the balance of risks to the outlook is to the downside. Despite the cooling of the external environment, growth is expected to reach almost 2½ percent in 2012 underpinned by reconstruction spending and a pickup in private consumption. However, risks to the outlook have shifted to the downside because of concerns about the turmoil in Europe and the possibility of a sharper-than-expected slowdown in China.

Addressing the longer-term challenges posed by Japan's very high public debt, rapidly aging population, low growth, and deflation will require a broad set of reforms. Key elements of a comprehensive policy package include:

- ***Securing fiscal consolidation.*** A fiscal adjustment of 10 percent of GDP over the next decade is necessary to put the public-debt to GDP ratio firmly on a downward path. The authorities' planned increase in the consumption tax is a crucial step and would demonstrate a commitment to fiscal reform. The planned increase, however, goes only part of the way towards achieving this goal, and further consolidation is needed. Consolidation should be designed to mitigate the near-term impact on growth, and improve incentives to work and invest.

- ***Raising potential growth.*** Higher growth is essential to create more jobs, help reduce public debt and improve resilience to shocks. Far-reaching reforms could raise activity by removing barriers to employment of female and old-aged workers; boosting immigration; deregulating the agriculture, electricity, and service sectors; and increasing the availability of risk capital.

- ***Exiting deflation.*** Further easing of monetary policy would accelerate achievement of the Bank of Japan's new inflation goal of 1 percent. Enhanced communication of the policy stance and framework would help achieve the goal. Monetary policy also needs the support of structural reforms to boost confidence and raise domestic demand.

- ***Maintaining financial sector stability.*** While the Financial System Stability Assessment (FSSA) finds that important steps have been taken to strengthen the financial system since the 2003 Financial Sector Assessment Program (FSAP) assessment, it recommends enhancing the monitoring of systemic risks, including from financial institutions' exposure to Japanese Government Bonds (JGBs) and equities. The authorities could strengthen their prudential framework, including by tightening banks' large exposure lending limits, raising capital requirements for domestic-oriented banks, strengthening the solvency assessment for insurers, and improving the resolution framework for nonbank financial institutions.

Approved By
Jerry Schiff and Tamim Bayoumi

Discussions took place in Tokyo from May 30-June 12, 2012. The staff team comprised J. Schiff (head), R. Brooks, S. Danninger, P. Berkmen, W. Lam, K. Tokuoka (all APD), and C. Steinberg (OAP). U. Das (MCM) and R.Teja (SPR) also participated in part of the mission. Mr. Lipton joined the final discussions and met with Finance Minister Azumi, BoJ Governor Shirakawa, and Minister of State for Economic and Fiscal Policy Furukawa. Messrs Furusawa and Shimoda (OED) participated in the discussions. The mission was assisted by OAP staff.

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BACKGROUND AND CONTEXT

1. The Japanese economy has shown remarkable resilience and adaptability in the aftermath of the March 2011 Great East Japan earthquake. In addition to the devastating human toll and destruction, businesses and households had to grapple with disruptions to supply-chains and a reduction in electricity supply. All 54 nuclear power plants—that supply about ¼ of Japan's electric power—were shut down for safety inspection since the disaster. One plant has recently been reopened and another is set to reopen in coming weeks. Severe floods in Thailand in late 2011 further weighed on the recovery and affected Japan's export sector through supply linkages.

2. Decisive action helped limit the economic effects of these shocks. A comprehensive reconstruction package was approved by government, supply chains were repaired within a few months, and impressive efforts to conserve electricity limited the disruption from the closure of nuclear power plants.

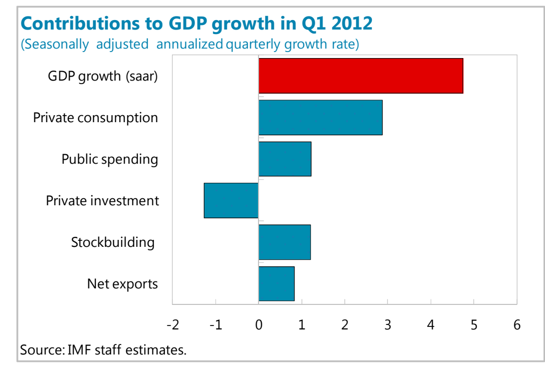
3. Beyond the short-term need to sustain the recovery, Japan faces a number of serious and interrelated longer term challenges. Reducing the public debt burden is a top priority, but this task is complicated by low growth, persistent deflation, and a rapidly aging population. The government's plan to raise the consumption tax is a crucial step towards fiscal sustainability, but further consolidation will be needed, accompanied by structural measures to raise growth and greater efforts to defeat deflation. This year's Article IV consultation focused on how to address these challenges by undertaking a comprehensive effort to take advantage of synergies among policies.

RECOVERING FROM RECENT SHOCKS

A. Recent Developments

4. Growth accelerated sharply in early 2012, helped primarily by domestic factors. After contracting by ¾ percent in 2011 because of the earthquake and Thai floods, real GDP grew at a brisk pace of 4¾ percent (s.a.a.r.) in the first quarter of this year (text figure, Figure 1, Table 1). Growth was boosted by reconstruction spending, a pickup in consumer spending (helped by government subsidies for environmentally friendly automobiles) and inventory rebuilding after the disruptions to the supply chain last year. Private investment, however, declined in early 2012, following two quarters of recovery, with business sentiment affected by rising uncertainty over the global outlook, particularly in the export-oriented manufacturing sector.

5. Core inflation, excluding food and energy, remained negative. At -0.6 percent in May (y/y) core inflation was near the highest level seen since the depth of the global financial crisis in early 2009. Headline inflation has moved into positive territory, reaching 0.2 percent in May (y/y), partly as a result of higher fresh food prices.



6. Job growth remained sluggish. Employment grew by about 1/3 percent in the year to April 2012, but employment was still about 3 percent below 2007 levels. The unemployment rate fluctuated around 4½ percent over the past year, but the improvement in the ratio of job openings to applications suggests that employment may pick up gradually in the near term. Real employee compensation remained relatively flat over the past year.

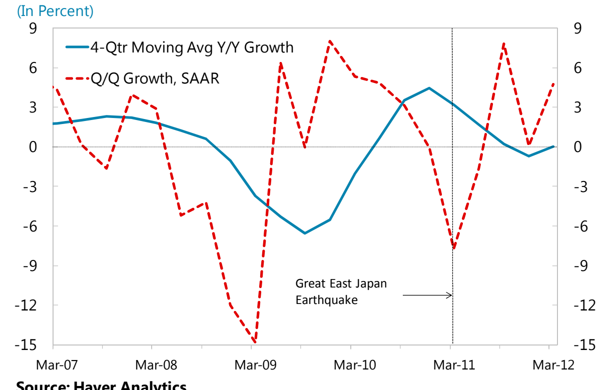
Figure 1. Real Sector Developments

The earthquake and Thai floods affected activity in 2011, but real GDP rebounded strongly in the first quarter of 2012.

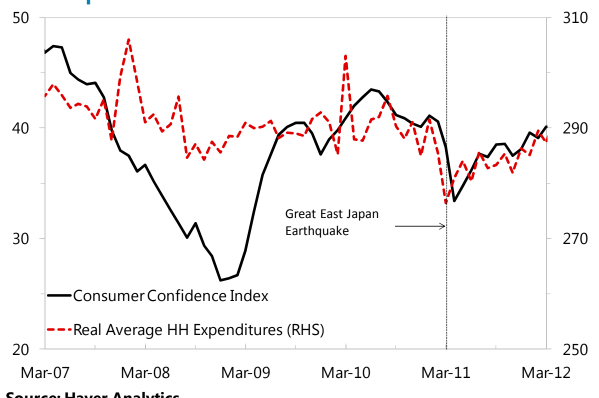
...led by strong consumption, supported by temporary subsidies for environmentally-friendly automobiles.

Real GDP Growth Measures

(In Percent)



Source: Haver Analytics



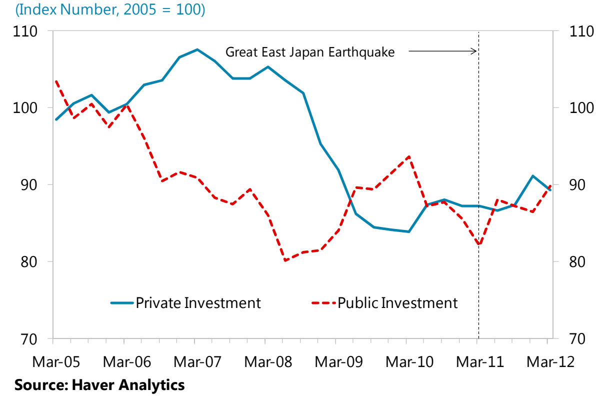
Source: Haver Analytics.

Investment is picking up, driven by public reconstruction spending. Private investment, however, remains well below 2007 levels.

Exports and industrial production have recovered from the earthquake's disruption, but are still below 2007 levels.

Real Gross Fixed Investment

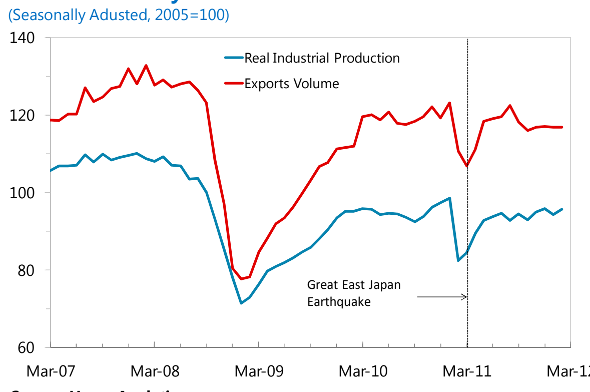
(Index Number, 2005 = 100)



Source: Haver Analytics

Economic Activity

(Seasonally Adusted, 2005=100)

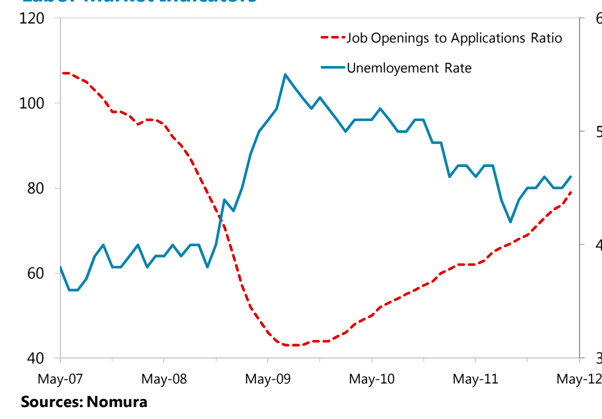


Source: Haver Analytics.

The unemployment rate has fluctuated around 4½ percent over the past year, but an increase in job offers signals a gradual improvement in labor market conditions.

Headline inflation has picked up recently, partly reflecting higher fresh food prices, with core inflation (excluding food and energy) remaining in negative territory.

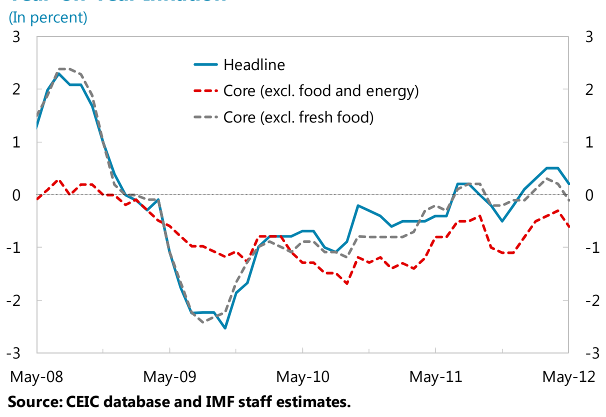
Labor Market Indicators



Sources: Nomura

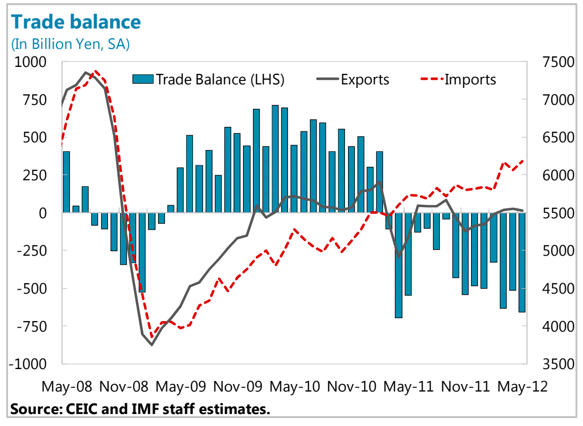
Year-on-Year Inflation

(In percent)



Source: CEIC database and IMF staff estimates.

7. The trade balance moved into deficit in 2011. Exports were disrupted because of the earthquake, Thai floods, weak global demand, and an appreciation of the yen (text figure, Tables 2 and 3). At the same time, imports continued to rise, driven by reconstruction spending and higher energy costs partly as a result of the closure of the nuclear power plants. As a result, the deficit widened to about 1 percent of GDP in the fourth quarter of 2011, and Japan recorded its first annual trade deficit since 1980. The trade deficit remained at around 1 percent of GDP in early 2012. The current account, however, was still in surplus—at 1½-2 percent of GDP in 2011 and early 2012—thanks to a stable income stream from large net foreign assets.



Source: CEIC and IMF staff estimates.

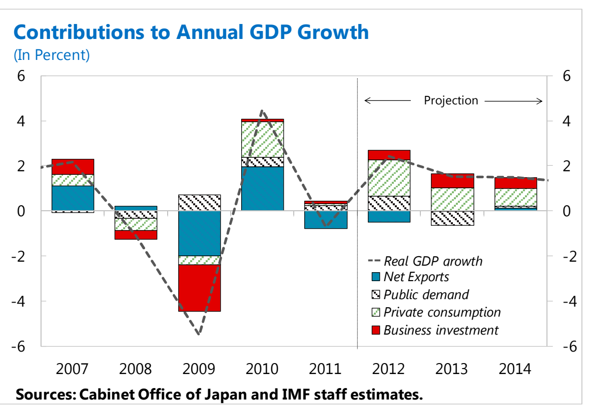
8. The recent turmoil in Europe has led to a flight to safety and impacted Japanese financial markets. Since mid-2011, equity prices have declined by about 10 percent and yields on 10-year JGBs have fallen to near historic lows of 80-85 basis points (Figure 2). Over the same period, the yen has appreciated by about 6 percent in nominal effective terms, and appears moderately overvalued (see section G).

B. Outlook and Risks

9. Growth in 2012 is likely to be driven by reconstruction. Real GDP is expected to expand by almost 2½ percent in 2012 supported by public reconstruction spending of around 1½ percent of GDP and robust consumer demand. Weak external demand, especially in Europe, will weigh on the recovery of exports and private investment. Moreover, higher energy costs from the shift to thermal electricity generation and conservation efforts over the summer are projected to detract about ¼ percentage point from growth. The recovery is forecast to slow in 2013 to 1½ percent, as reconstruction winds down. Over the medium-term, growth is expected to converge to staff's estimated potential rate of 1 percent (Table 4).

10. Inflation is forecast to remain near zero over the next two years. The still wide output gap (about 3 percent of GDP in early 2012) is expected to narrow only gradually and not close until 2015/16. As a result, core inflation (excluding food and energy prices) is projected to rise slowly and turn slightly positive by mid-2013. The projected decline in commodity prices will likely keep headline inflation near zero over the same period. Staff forecast inflation to rise gradually over the medium-term and reach 1 percent by 2017.

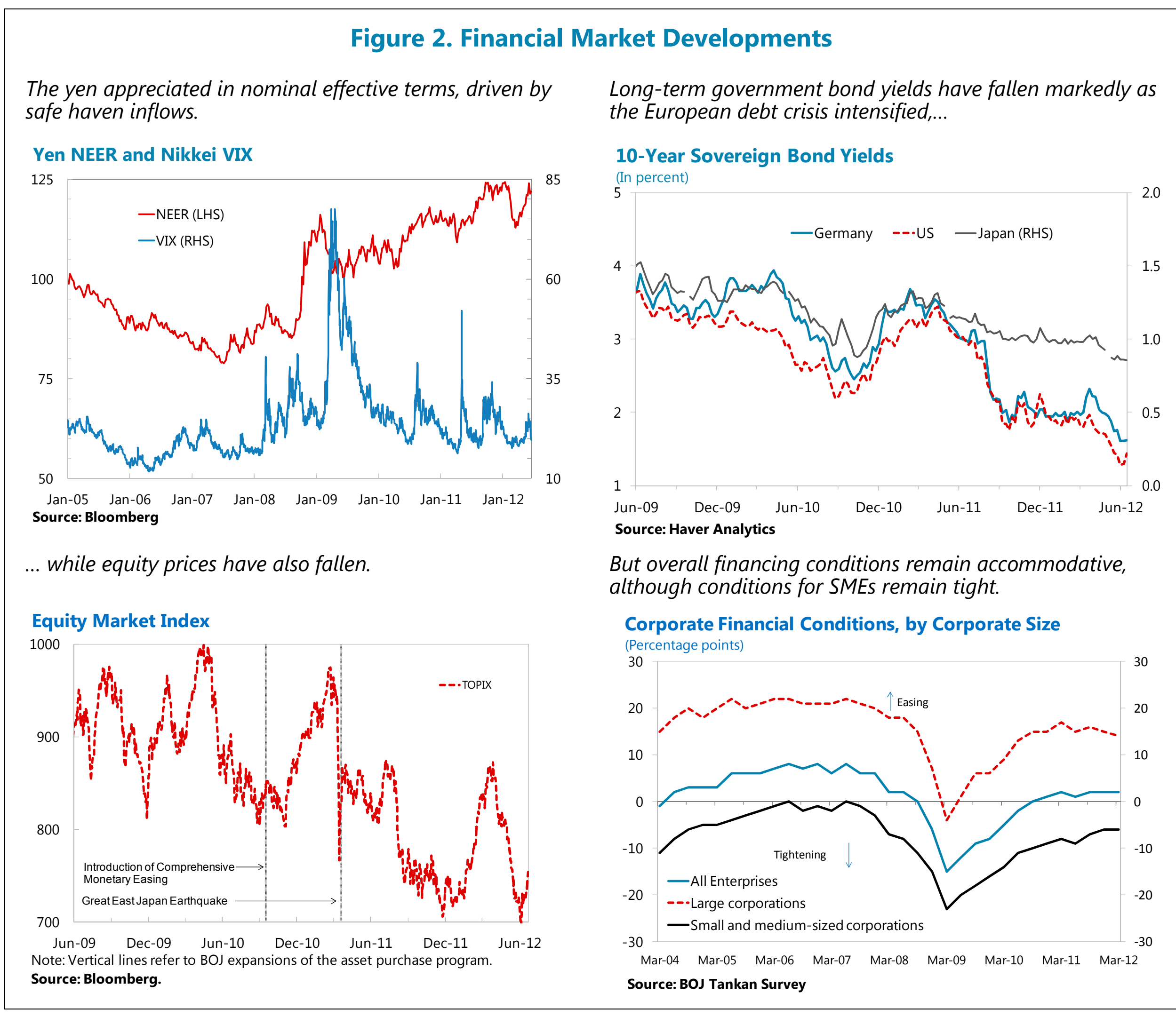
11. Risks to the outlook have shifted decidedly to the downside (Appendix 1). An escalation of the European turmoil or a sharper-than-expected slowing of the Chinese economy would hurt Japanese exports and growth.[1] Moreover, an intensification of the flight to safety in financial markets could further appreciate the yen, worsen the trade balance, and depress equity prices and business and consumer confidence. With the closure of almost all nuclear power plants, an unusually hot summer could disrupt economic



Sources: Cabinet Office of Japan and IMF staff estimates.

[1] See Spillover Report (2012) for analysis of a sharper-than-expected slowing of China's economy.

Figure 2. Financial Market Developments



activity (Box 1). This risk would be mitigated, however, by conservation efforts already being taken. On the upside, a stronger-than-expected recovery in Japanese consumer and business sentiment would lift domestic demand.

12. Over the medium-term, the key downside risks are the possibility of a prolonged global economic downturn and limited progress on structural reforms in Japan. If these risks materialize, Japan could continue to suffer from low growth and deflation, a toxic mix that would worsen public debt dynamics substantially. The debt sustainability analysis (Appendix II) suggests that severe shocks to growth, inflation and real interest rates, coupled with limited fiscal adjustment, could see public net debt rise to over 300 percent of GDP by 2030.

Japan: Near-Term Projections

	2010	2011	2012	2013
	(Calendar Year, Growth Rate)			
Real GDP	4.4	-0.7	2.4	1.5
Total domestic demand	2.7	0.1	3.0	1.5
Net exports (contribution)	1.7	-0.8	-0.5	0.0
CPI inflation (average)	-0.7	-0.3	0.2	0.0
Current account balance (% of GDP)	3.7	2.0	2.2	2.7
Gen. Govt. primary balance (% of GDP)	-8.7	-9.2	-8.8	-7.4
Gross Debt (% of GDP)	215.3	229.9	234.5	240.0

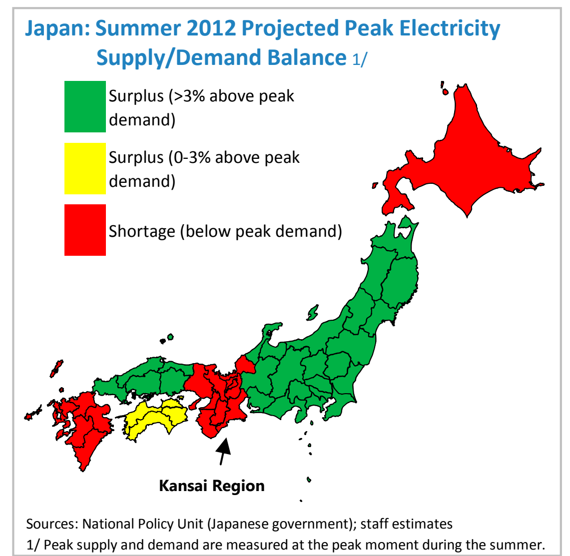
Source: IMF staff estimates.

The Authorities' Views

13. The authorities broadly agreed with staff's assessment, and expressed particular concern about the possibility of a further rise of the yen. While they considered that the direct effects of a slowdown in Europe would be manageable, they were more worried about the knock-on effects to China. If this was combined with a further appreciation of the yen, it would hurt the profitability of

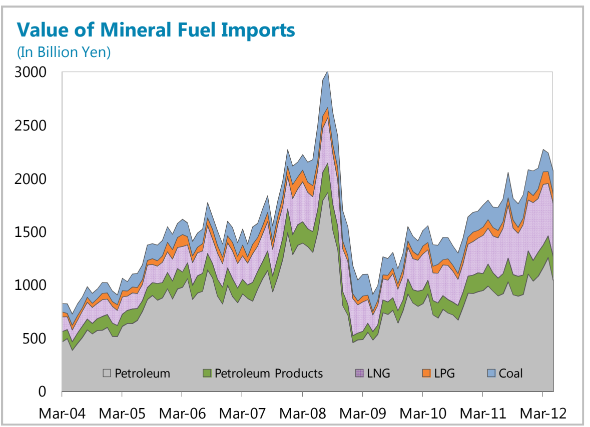
Box 1. What is the Outlook for Electricity Supply?[1]

Electricity supply problems appear to have lessened. As a result of the the nuclear disaster last year, all 54 reactors—accounting for one-quarter of total electricity supply—were shut down for safety inspections. Despite the lower supply capacity**,** electricity problems this year are expected to be less severe than last summer. This is because the economically important Kanto region around Tokyo (accounting for 40 percent of Japan's GDP), has sufficient capacity to meet demand due to an expansion of thermal power power plants, an increase in tariffs, and continued conservation efforts.



The situation is, however, more uncertain in the Kansai region, where dependence on nuclear energy is high (text figure)**.** The region accounts for 16 percent of GDP and drew half of its electricity needs from nuclear power in recent years. To ward off any potential shortfalls the government has imposed demand restrictions on businesses, encouraged transfers from surplus regions, and enhanced conservation efforts. The recent re-opening of one nuclear reactor and the planned reopening of another plant in coming weeks will help fill much of the possible shortfall in Kansai.

Staff estimates real GDP growth in 2012 could be ¼ percentage point slower as a result of the energy problems. Lower consumption and productivity, combined with higher energy costs from the switch to thermal electricity generation, could suppress activity. Moreover, investment in energy-intensive sectors could decline as production costs rise. Higher fuel imports will also weigh on the trade balance and increase Japan's vulnerability to world energy price shocks (text figure).



Over the longer horizon, developing alternative energy sources would help reduce vulnerabilities. The government will publish a new energy plan over the summer, which could include some deregulation of the electricity sector to encourage more regional trading of supply to address shortages. Moreover, targeted subsidies and an increase in the carbon tax could give corporates an incentive to conserve energy and increase production of alternative energies.

[1] Prepared by Kiichi Tokuoka and Pelin Berkmen.

Japan's tradables sector and slow the broader economic recovery. They noted that the outlook for electricity supply had improved with the recent decision to re-open two nuclear power plants.

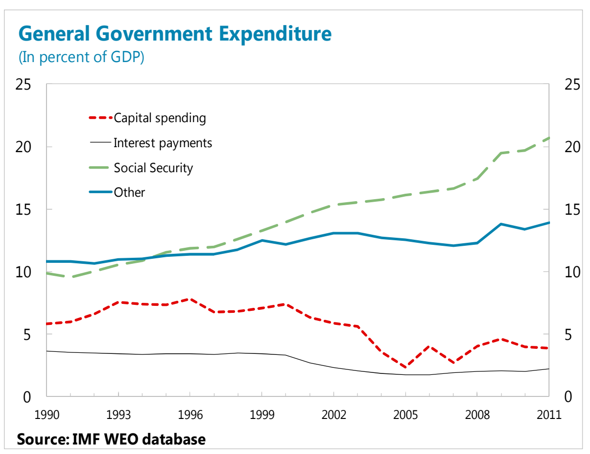
14. The BoJ expects a stronger pick-up of inflation than staff. While the BoJ's and staff's growth projections are similar, their estimate of the output gap in early 2012 is smaller and they expect greater upward price pressure than staff as the output gap closes in coming years.[2] Also, the BoJ assumes that commodity prices are likely to rise moderately because of increased demand for food and energy in relatively fast-growing emerging economies. Therefore, the BOJ expects it will likely be not too long before inflation reaches 1 percent under current policy settings.

[2] The difference in the output gap estimates in early 2012 reflects staff's higher potential growth (almost 1½ percent per annum) prior to the crisis compared with the BoJ's estimate of about 1 percent. Staff analysis suggests that narrowing the negative output gap by 1 percentage point of GDP would raise the inflation rate by almost ¼ percent. The authorities indicated that they estimate the effect to be higher, but did not provide a precise figure.

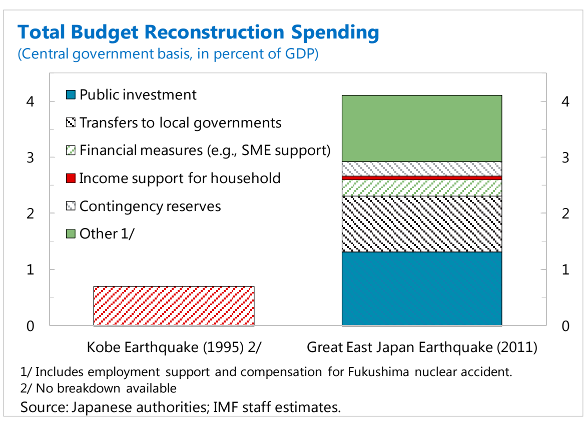
POLICY DISCUSSIONS

C. Regaining Fiscal Sustainability

15. Japan's fiscal problems are deep rooted. Net public debt has increased nearly ten-fold over the last two decades to more than 125 percent of GDP. As a result of population aging, social security spending has risen rapidly, while persistently weak growth and deflation have depressed tax revenues (text figure, Figure 3). Growth in other spending has been relatively slow, with capital spending having fallen substantially.



16. Fiscal vulnerabilities are substantial. Japan's net public debt is higher than in almost all other advanced countries, and unlike in many other advanced countries is projected to rise further. Even a relatively small increase in the sovereign risk premium would make fiscal consolidation more difficult, pose challenges to financial institutions, harm growth prospects in Japan, and could spill over to global risk premia and growth (Box 2). In this regard, Europe's recent experience offers a cautionary tale. Once market confidence is lost, regaining it becomes very difficult. At the same time, a large adjustment without growth is extremely difficult to implement given economic and political constraints, highlighting the need for forceful structural reforms.



Policy Issues and Staff's Views

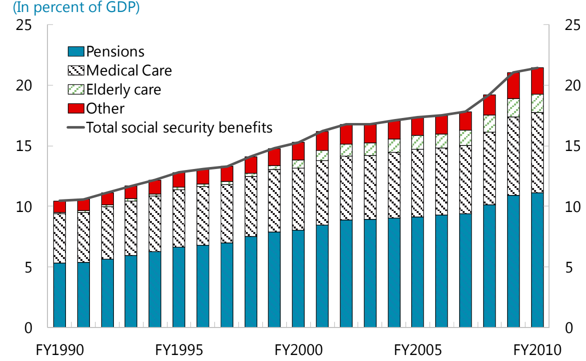
17. Japan's fiscal deficit is set to increase in 2012, which staff considered appropriate to support reconstruction and the broader recovery. Capital and current reconstruction spending equivalent to 1½ percent of GDP in 2012 (as part of a multi-year reconstruction package of 4 percent of GDP) will widen the fiscal deficit to about 10 percent of GDP in 2012, while the structural primary deficit will rise slightly to 7½ percent of GDP (text figure, Table 5).

18. Staff welcomed the authorities' intention to raise the consumption tax as part of its consolidation plan. The Lower House of the Diet has approved a tax bill that would increase the consumption tax to 8 percent in April 2014 and 10 percent in October 2015. The Upper House is now considering the bill. Passage of the tax legislation is crucial to demonstrate a commitment to fiscal reform and sustain investor confidence. Staff estimate that the authorities' current consolidation plan, including the increase in the consumption tax, withdrawal of the financial crisis stimulus, and curbs to non-social security spending would achieve a 5 percent of GDP adjustment and reduce the primary deficit to 2½ percent of GDP by 2020.

Figure 3. Fiscal Policy

While social security benefits have been rising rapidly…

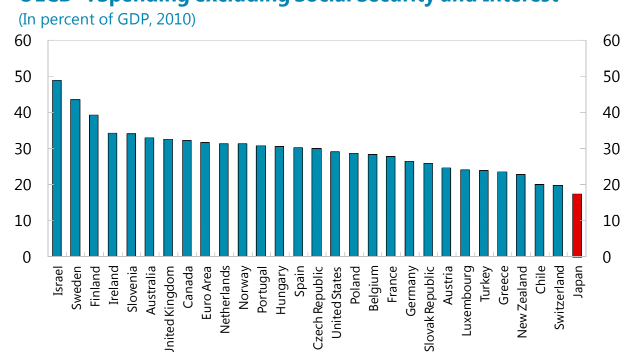
Japan: Social Security Benefits
(In percent of GDP)



Source: Ministry of Health, Labor and Welfare (Japanese Government); staff estimates

…non-social security spending has remained the lowest among OECD economies.

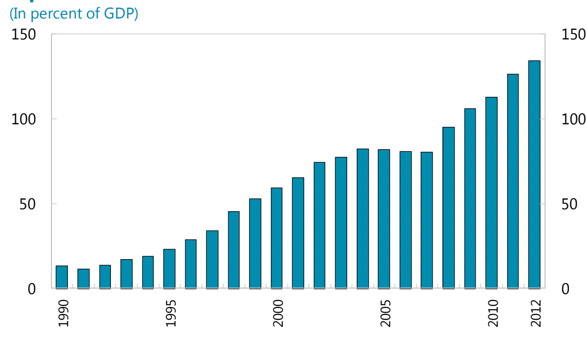
OECD[1/]: Spending excluding Social Security and Interest [2/]
(In percent of GDP, 2010)



1/ OECD countries with missing data (e.g., Italy) are not reported here.
2/ General government basis.
Source: IMF WEO database.

Social security spending has contributed to large deficits and pushed up Japan's debt level …

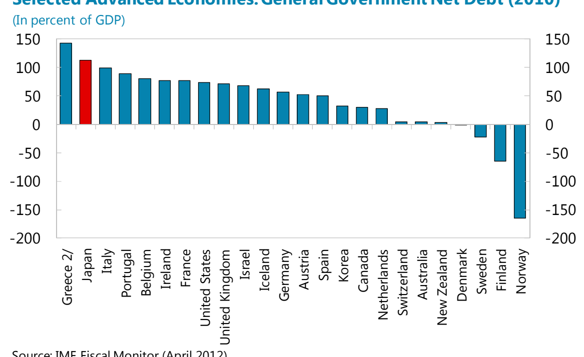
Japan: General Government Net Debt [1/]
(In percent of GDP)



1/ Net debt is defined as gross debt minus financial assets.
Source: Cabinet Office and IMF staff estimates.

… to almost the highest level, relative to GDP, for advanced economies .

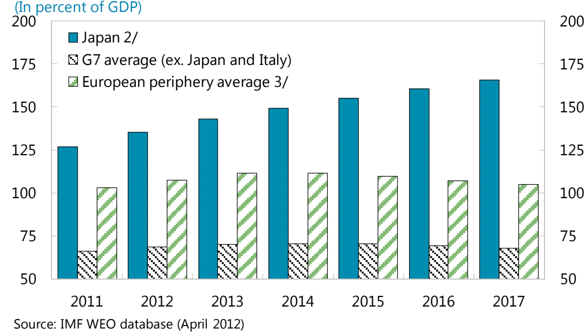
Selected Advanced Economies: General Government Net Debt (2010)
(In percent of GDP)



Source: IMF Fiscal Monitor (April 2012)
1/ Net debt is defined as gross debt minus financial assets.
2/ Gross debt for Greece due to data limitation.

In the absence of fiscal adjustment, net public debt is projected to rise further unlike other advanced economies.

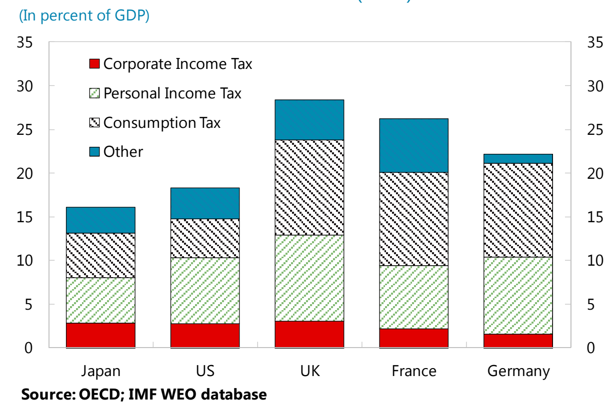
WEO Baseline Projections for General Government Net Debt [1/]
(In percent of GDP)



Source: IMF WEO database (April 2012)
1/ Net debt is defined as gross debt minus financial assets.
2/ Not reflecting the consumption tax increases planned by the government.
3/ Greece, Ireland, Italy, Portugal and Spain. Greece's debt is on a gross basis, due to data limitations.

Revenue reform is crucial as Japan's tax revenue is relatively low.

General Government Tax Revenue (2010)
(In percent of GDP)



Source: OECD; IMF WEO database

Box 2. Risks from a Sharp Increase in Government Bond Yields[1]

Despite the rise in public debt, JGB yields have remained low and stable. The low yields are attributable to an increase in risk aversion following the global financial crisis and deflation. Ownership of JGBs is dominated by domestic investors, who hold more than 90 percent of the outstanding stock and, in recent years, have preferred to hold assets that are perceived as low-risk, such as JGBs and bank deposits. Banks have, in turn, held a growing share of their assets in JGBs, given limited demand for credit. While these factors are expected to persist for some time, the market's willingness and capacity to absorb new government debt will diminish as population aging reduces saving and the corporate sector's risk appetite improves (see WP/11/292). Without significant policy adjustment, outstanding gross general government debt could reach 250 percent of GDP over the medium term. The stock would likely exceed household savings in 5-10 years, suggesting a need to turn more to the corporate sector and foreign investors.

Even a moderate rise in yields would leave the fiscal position extremely vulnerable. If JGB yields rose by 100 bps over the next 5 years, the long-term net public debt-to-GDP ratio would remain high at 150 percent of GDP, even after a 10 percentage points of GDP adjustment in the structural fiscal balance. Failure to implement a credible fiscal consolidation plan could lead to sovereign downgrades and trigger similar actions for financial institutions, which could eventually erode confidence in the JGB market (text table).

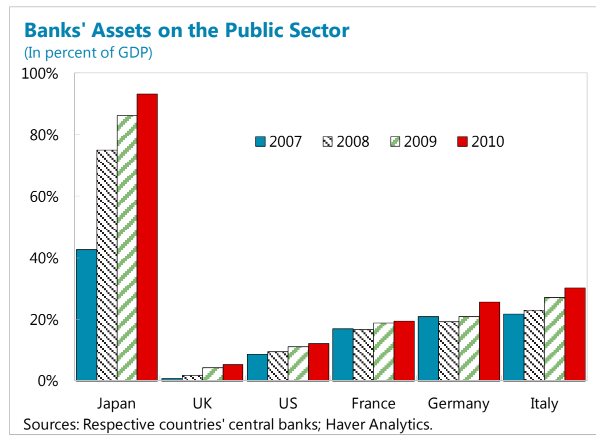
Japan Long-term Sovereign Ratings

	Ratings	Outlook	Ratings effective since
Moody's	Aa3	Stable	Aug-11
S&P	AA-	Negative	Feb-11
Fitch	A+	Negative	May-12
R&I	AA+	Stable	Dec-11

Source: Bloomberg; as of May 2012.

[1] Prepared by Raphael Lam.

The IMF's recent FSSA points out that growing risks to fiscal sustainability have heightened concerns about possible feedback to financial stability. The JGB holdings of banks have risen substantially and more than doubled since the global financial crisis (text figure). Should a sharp rise of government bond yields coincide with a broader growth shock (e.g., a global downturn), financial stability might be challenged. In such a scenario, asset prices would fall further and borrowing costs rise, leading to a deterioration of credit quality and a worse outcome for growth.



Sources: Respective countries' central banks; Haver Analytics.

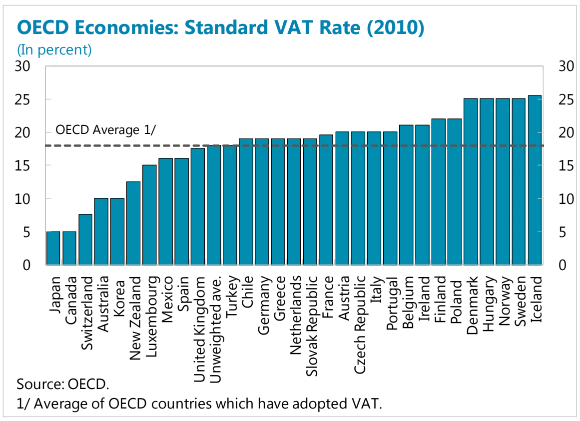
A sustained rise of government bond yields could lower global output through a spillover to global risk premia. Spillover analysis (see separate background paper for the Spillover Report) shows that a sharp rise in government bond yields could reduce Japan's output by 6-10 percent after 10 years, relative to the baseline, depending on the extent of contagion to global risk premia. The impact on global output would be modest if the rise in Japanese government bond yields was contained in Japan. However, if global risk premia rose more substantially, in line with estimates based on historical correlations, output could fall by up to 1 percent in the United States and about 2-3 percent in Emerging Asia and the Euro area.

19. Staff noted, however, that more needs to be done to reduce debt. In the absence of further adjustment, beyond the authorities' current plan, the public debt-to-GDP ratio would continue to rise. The authorities' fiscal strategy recognizes the need for further adjustment but no concrete policy proposals, beyond current plans, have been put forward as yet. Staff advised an additional 5 percent of GDP adjustment to achieve an overall fiscal consolidation of 10 percent of GDP over the next decade. This would achieve a primary surplus of about 3 percent of GDP by the early 2020s and put the public-debt-to-GDP ratio on a clear downward path. Staff recommended that about half the adjustment come from additional expenditure restraint of 2½ percent of GDP over the next decade, by curbing growth in nominal spending. In addition, adopting a clear timeframe for further revenue increases beyond 2015 to achieve the remaining adjustment would bolster confidence in public finances.

20. The consolidation recommended by staff would have a negative impact on real GDP growth of about ½ percent annually in the short-term.[3] The pace of consolidation over the next 5-6 years under the staff's proposal is quicker than in most advanced countries, which is needed to stabilize the debt-to-GDP ratio given Japan's large public debt. Importantly, a commitment to fiscal reform through pre-announced increases in the consumption tax, could bring forward household spending, limiting the near-term impact of the tax increase. However, if the consolidation was coupled with structural reforms to support growth, it could boost confidence and help raise private consumption and investment over the longer-term.

21. Careful design of consolidation measures could reduce the negative impact on growth. Building on the proposed consumption tax increase, staff advised a broad range of reforms to contain social security spending and improve incentives to work and invest. While the design of an appropriate fiscal package would need to take a pragmatic approach, some elements could include the following, many of which have already been debated publicly (text table, shaded column):

- *Increasing the consumption* tax to a uniform rate of at least 15 percent, closer to the average for OECD countries (text figure), as it is a stable source of revenue in an aging society, one of the least distortionary taxes, and easy to administer.
- *Cutting the corporate tax rate* further, beyond the planned reduction to 35 percent in 2015, to improve incentives to invest.
- *Broadening the personal income* tax base to raise revenue and improve work incentives, including by reducing the exemption for pension income and eliminating the tax deduction for dependent spouses.



Source: OECD.
1/ Average of OECD countries which have adopted VAT.

- *Reducing social security spending*, including by raising the pension retirement age to 67, collecting contributions from dependent spouses, and clawing back benefits from wealthy retirees.[4] Some of these savings could help fund a reduction in payroll taxes.

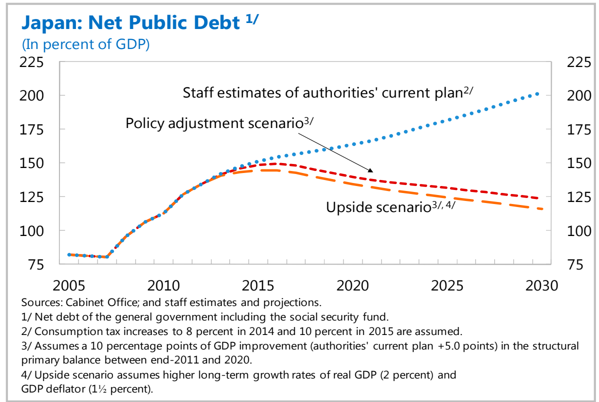
22. Fiscal reforms would also need to address equity concerns. Staff analysis suggests that an increase in the consumption tax and pension reforms would be fairer than other measures in addressing the large inequities between young and old generations and that a delay in enacting fiscal reforms would only serve to worsen intergenerational equity (Box 3). Targeted transfers to lower-income households could also be introduced to address concerns about the regressive nature of the consumption tax, rather than adopting multiple tax rates that would reduce its efficiency in raising revenue. The introduction of a uniform tax identification number could help raise revenue from high-income earners and better target transfers.

23. The payoff of these reforms in the form of a lower public-debt-to-GDP ratio could be sizeable. By steadily improving the fiscal balance over the course of a decade, staff project net public debt to stabilize at around

[3] Based on simulations of the Global Integrated Monetary and Fiscal (GIMF) model incorporating an increase in investment and consumption, assuming confidence is boosted as a result of consolidation. See IMF Country Report 11/183.

[4] Unlike in many other countries, dependent spouses of employees are eligible for pension benefits, even though they make no contributions. See Selected Issues Paper "Options for Pension Reform in Japan" by Kenichiro Kashiwase, Masahiro Nozaki, and Kiichi Tokuoka (2012).

150 percent of GDP by mid decade and then fall gradually to 125 percent of GDP by 2030 (text chart, policy adjustment scenario). The benefits would be larger in an upside scenario, similar to the authorities' Growth Strategy scenario, in which forceful structural reforms together with increased confidence in fiscal sustainability are assumed to lead to higher real growth and inflation, and a depreciation of the yen toward its medium-term equilibrium.[5] This would push down the net public-debt-to-GDP ratio to around 115 percent of GDP by 2030.



Options for Fiscal Policy Adjustment between end-2011 and 2020 1/

(Excluding Reconstruction Spending, in Percentage Points of GDP)

	Staff Estimates of Authorities' Current Plan	Adjustment Options		
Consumption Tax Rate (In percent, currently at 5 percent)	10.0	15.0	15.0	18.0
Fiscal Policy				
Revenue				
Increase consumption tax	2.5	5.0	5.0	6.5
Cut corporate tax further 2/		-0.5 /3	-0.75 /4	-0.5 /3
Broaden personal income tax base		0.5	0.75	0.5
Eliminate preferential tax treatment for pension benefit income			¼ /5	
Collect contributions from dependent spouses of workers covered by the Employees' Pension Insurance			¼ /5	
Reduce pension payroll tax			-0.5	
Introduce carbon tax /6	✔	✔	✔	✔
Raise inheritance/gift tax	✔	✔	✔	✔
Expenditure				
Withdraw financial crisis fiscal stimulus	1.0	1.0	1.0	1.0
Curb growth rate of nominal non-social security spending (excluding interest payments)	1.5	2.5 /7	2.5 /7	2.5 /7
Limit annual nominal growth in non-pension social security spending at 1-1½ percent		1.0	1.0	
Raise pension eligibility age to 67 or higher		¼ 5/	¼ 5/	
Reduce benefits for wealthy retirees		¼ 5/	¼ 5/	
Total Savings	5.0	10.0	10.0	10.0

1/ Without 10 percentage points of GDP adjustment, spending in percent of GDP is projected stay at about the same level between 2011 and 2020. This means that even without 10 percentage points of GDP adjustment, nonsocial security spending (in percent of GDP) is projected to decline slightly, given gradual increases in social security spending.
2/ The government has already decided to reduce the effective corporate tax rate to 35 percent by FY2015 from 40 percent in FY2011.
3/ Cut the effective rate to around 30-35 percent.
4/ Cut the effective rate to around 25-30 percent.
5/ Lower bound estimate in the accompanying Selected Issues Paper "Options for Pension Reform in Japan."
6/ The fiscal savings are assumed to be around 0.1 percentage points of GDP or lower. The savings are assumed to be spent on ene
7/ Freezing expenditure in nominal terms can produce this size of savings.

[5] See IMF Country Report 11/183.

Box 3. Intergenerational Implications of Fiscal Consolidation in Japan[1]

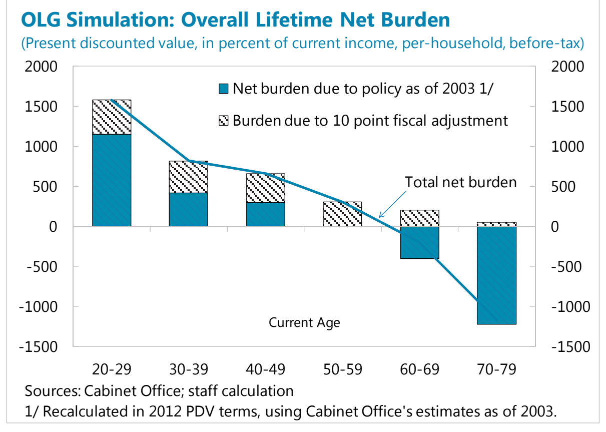
Intergenerational resource inequality in Japan is significant. The Cabinet Office estimated that based on government policy in 2003, the present discounted value (PDV) of the lifetime net burden (defined as any payment to the government minus any services and transfers from the government) for future generations would be 50 million yen per household (about 10 times household annual disposable income), and 100 million yen heavier than for those aged 60 years or older.

Fiscal consolidation generally worsens intergenerational inequality further from current levels. A fiscal adjustment typically aggravates intergenerational resource imbalances as the young would feel the decline in net benefits (as a result of an adjustment) for a longer period. However, this does not imply that a fiscal adjustment would make young and future generations worse off because lack of fiscal consolidation would eventually lead to an increase in interest rates and lower pension benefits, which would lower output and reduce welfare substantially.

Simulation analysis using an overlapping generations (OLG) model shows that a fiscal adjustment of 10 percentage points of GDP would raise the lifetime net burden substantially for young generations, but minimally for older generations. For those aged 20–29, the net PDV burden from a 10 percentage point consolidation would be as much as 400 percent of current per household wage income before taxes, with the total net burden reaching 1600 percent combined with the burden implied by policy as of 2003 (text figure). Those aged 70 or higher, however, would remain beneficiaries under the government transfer system even with the 10 percentage point consolidation.

OLG Simulation: Overall Lifetime Net Burden

(Present discounted value, in percent of current income, per-household, before-tax)



Sources: Cabinet Office; staff calculation

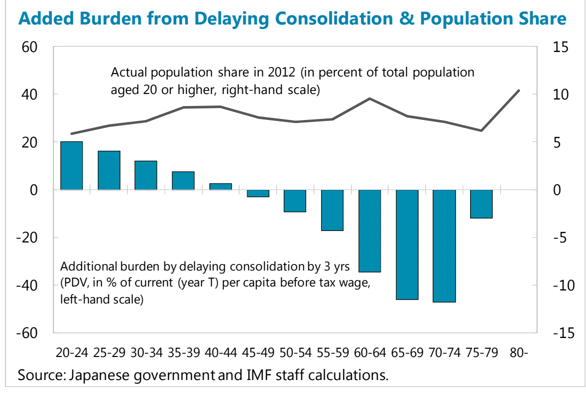
1/ Recalculated in 2012 PDV terms, using Cabinet Office's estimates as of 2003.

A key question, therefore, is how to implement needed fiscal consolidation while minimizing the deterioration in intergenerational inequality. In this regard, OLG simulations highlight the following:

- **Including social security spending reforms in a consolidation package could help correct the large intergenerational imbalance.** This is because older generations would have to bear the immediate burden of these reforms. For example, if a 1.5 percentage point of GDP adjustment (out of 10 points above) comes from social security spending reforms (e.g., a targeted reduction in pension benefits), that would reduce the burden for young generations by 15 percent of current household wage income (before taxes) relative to a scenario without social security spending reforms. However, relying excessively on social security spending reforms could have serious welfare implications for seniors. This argues for combining social security spending reforms and revenue measures in a consolidation package.

- **Delaying fiscal adjustment could be costly and worsen intergenerational resource inequality.** For example, delaying fiscal consolidation by 3 years would require larger fiscal consolidation eventually and raise the PDV lifetime burden for those currently 20-29 years of age by 15-20 percentage points of the current per household wage income (before taxes). However, such a delay would reduce the burden for older generations relative to a no-delay scenario (text figure). This highlights the political difficulty of implementing fiscal consolidation early as the share of old-aged people is growing.

Added Burden from Delaying Consolidation & Population Share



Source: Japanese government and IMF staff calculations.

[1] Prepared by Kiichi Tokuoka. For technical details see forthcoming IMF Working Paper K. Tokuoka "Intergenerational Implications of Fiscal Consolidation in Japan."

24. To sustain a decade-long adjustment, a more robust fiscal framework could improve discipline and enhance public understanding of the needed reforms. Various options include adopting a medium-term budget framework with a strict overall spending limit and ministry-by-ministry spending targets, while restricting the use of supplementary budgets. Greater disclosure of tax expenditures would also increase transparency. Once fiscal consolidation is on track, the authorities could also consider adopting a legally-binding fiscal rule that could target a primary surplus.

Authorities' Views

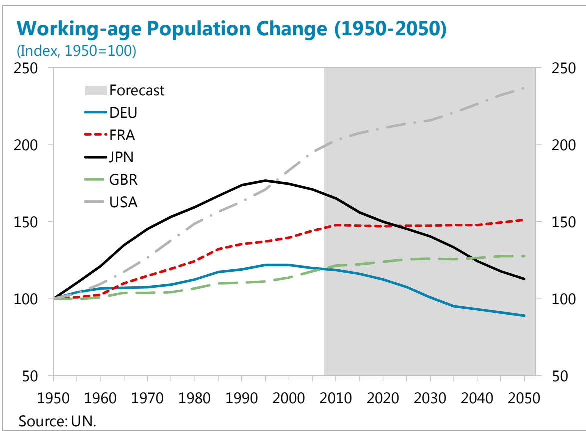
25. The authorities stressed their commitment to fiscal consolidation and see the doubling of the consumption tax rate as a critical first step. They broadly agreed with staff advice on the need for further consolidation beyond current plans. They emphasized that their fiscal strategy is to halve the primary deficit by FY2015 and achieve a primary surplus by FY2020 at the latest, to reduce the public debt-to-GDP ratio over time.

26. The authorities noted that they are working toward concrete proposals to achieve this adjustment, and are considering a number of options including some of those raised by staff. They were cognizant of the need to address equity concerns both between generations and for low-income households. In this regard, they acknowledged the importance of social security reforms, especially to the public pension. On the revenue side, before considering a further reform in corporate taxes, they wished first to examine such factors as the impact of the corporate tax cut started in FY2012 and international competitive conditions.

27. They saw the current fiscal framework as effective in maintaining discipline. The authorities stated that rigid ministry-by-ministry medium-term spending limits could weaken budget flexibility, and referred to their experience with the 1997 Fiscal Structural Reform Act, that included limits by major spending category and was suspended following the banking crisis. They emphasized that their current rolling three-year expenditure framework, with caps on non-interest primary spending, was effective in containing spending while allowing flexible resource allocation across expenditure categories.

D. Structural Reforms to Raise Growth

28. Higher growth is essential to create more jobs, reduce public debt and improve resilience to shocks. While Japan had one of the highest rates of productivity growth among advanced economies over the past decade, a decline in the working age population and weak investment slowed overall growth (Figure 4). Looking ahead, this demographic effect will continue as the population is expected to age quicker than in most other countries (text figure).

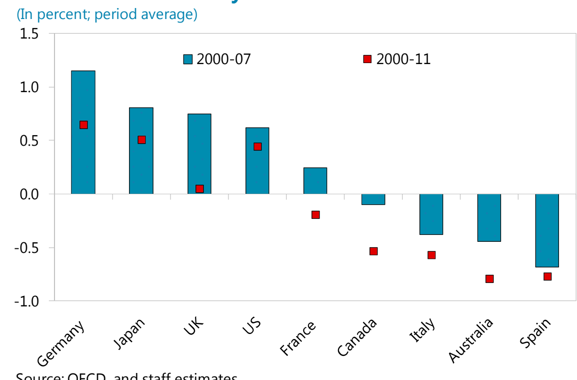


29. International evidence shows that bold and comprehensive reforms can succeed in raising growth substantially. A small number of advanced countries were able to raise their potential growth rate on a sustained basis by 1 percent (text table). In several cases, the growth acceleration followed a difficult economic period. Reforms were often broad based and included increasing the flexibility of the labor market, deregulating product markets and services, and opening up to foreign competition.

Figure 4. Structural Reforms

Despite low overall GDP growth over the last decade, productivity gains have been strong.

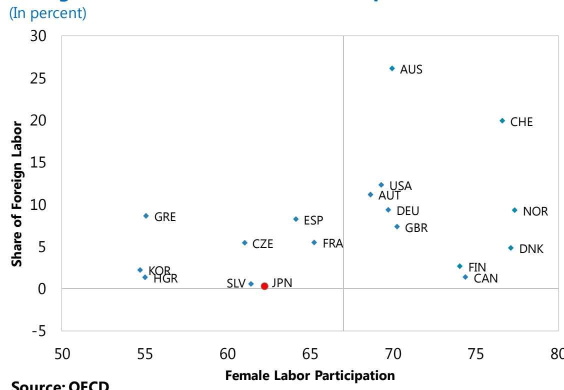
Total Factor Productivty Growth
(In percent; period average)



Source: OECD, and staff estimates.

But the scope for raising labor participation is high as both female labor force participation and immigration are low relative to the OECD.

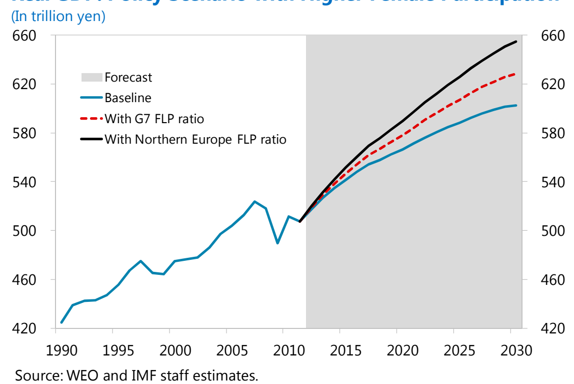
Immigration and Female Labor Participation
(In percent)



Source: OECD.

The annual potential growth rate could rise by about ¼ percentage points if Japan was to raise the female labor participation ratio to the G-7 average, …

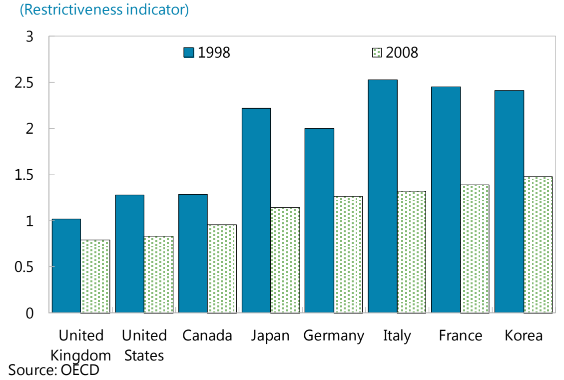
Real GDP: Policy Scenario with Higher Female Participation
(In trillion yen)



Source: WEO and IMF staff estimates.

… and further reduce the administrative burden for firms, building on progress made over the last decade.

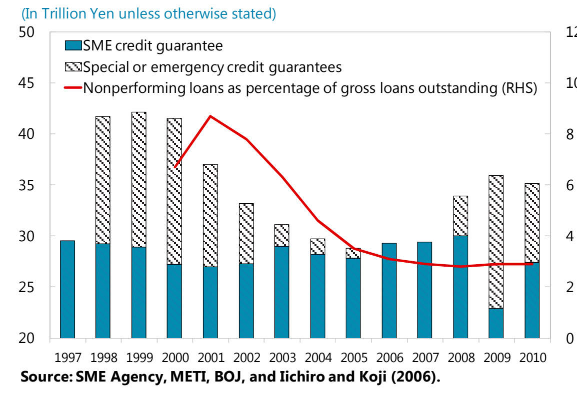
Product Market Regulation in Advanced Economies
(Restrictiveness indicator)



Source: OECD

Public credit guarantees are widely used, but have likely weakened credit risk assessment, discouraged restructuring of nonviable SMEs, and limited startups.

SME Loans and Credit Guarantees
(In Trillion Yen unless otherwise stated)



Source: SME Agency, METI, BOJ, and Iichiro and Koji (2006).

Availability of risk-based capital (e.g., venture capital funds) is very limited in Japan.

Selected Advanced Economies: Venture Capital Investment
(In percent of GDP)

Seed/Start-up
Expansion

Israel, United Kingdom, United States, OECD (27), France, Italy, Canada, Germany, Japan

Source: OECD (2008).

Durable Potential Growth Rate Increases 1/			
	Decade	Potential growth	
		Initially	End of decade
Canada	1988-98	2.9	3.9
Finland	1987-97	2.1	3.2
Netherlands	1982-92	1.2	2.9
New Zealand	1985-95	1.9	3.4
Sweden	1989-99	1.7	3.5

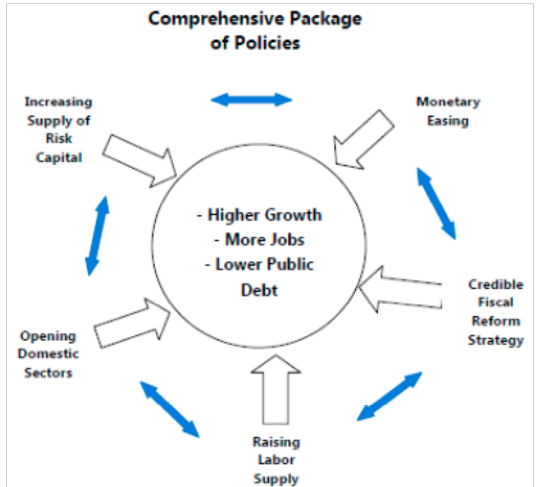
Source WEO, 1/ advanced economies only and defined as a growth rate increase by 1 percentage point over one decade sustained for 5 years.

30. In Japan, a far-reaching package of reforms would be needed to achieve the authorities' goal of raising long-term GDP growth to 2 percent.[6] Achieving such an improvement in potential growth will be challenging, in particular because Japan has worse demographic headwinds than other countries. Nonetheless, there is some "low-hanging fruit" in the labor market. Increasing Japan's female labor participation rates to the G-7 average, raising old-age employment in line with Japan's long life expectancy, and boosting the low level of immigration could raise potential growth by a much as ½ percentage point (Figure 5).

Policy Issues and Staff's Views

31. Reforms should focus on the most important constraints to growth. These include the decline in the labor supply with aging, low female labor force participation, domestic sector regulations, and limited availability of risk capital (text figure). A package of structural policies should include the following measures, many of which are currently under consideration:

- *Increasing the labor force.* Female and old-aged employment could be encouraged by further expanding childcare facilities (including through deregulation) eliminating the tax deduction for dependent spouses,[7] and raising the retirement age to above 65 years. Labor market mobility and fairness could be facilitated by introducing a uniform regular employment contract which phases in employment protection. Increased immigration could boost the labor force and thereby raise growth. It may also have an impact on inflation, including by raising the demand for housing. The recently introduced immigration "points-based" system provides highly skilled foreign professionals with preferential immigration treatment and could be broadened to include lower-skilled immigrants to meet labor shortages in sectors such as long-term care for the old-aged and childcare, which would also facilitate greater female labor force participation.



- *Raising productivity further and encouraging investment.* Productivity in domestic sectors could be increased by easing regulations that limit the development of services, such as health and old-age care, and by reforming the electricity and agricultural sectors. While Japan is becoming increasingly integrated with Asia, it could do more to tap into regional growth momentum. This could include encouraging FDI to help strengthen competitiveness and aid specialization in high value products.[8] Importantly, the authorities' plan to pursue high-quality free trade agreements with key

[6] Selected Issues Paper "Japan's Growth Challenge" by Stephan Danninger and Chad Steinberg (2012).

[7] The tax deduction for dependent spouses with annual income of less than 1.03 million yen (US$13,500) is a disincentive for spouses to increase their earnings beyond this level.

[8] See Spillover Report on "Japan's Outward FDI" by Stephan Danninger (2012).

Asian and European trading partners and join the Trans Pacific Partnership could be a catalyst for regional integration and reforms in services and agriculture. At the same time, wider multilateral trade agreements should continue to be pursued.

- *Improving financial intermediation.* While credit conditions are accommodative at present, structural impediments limit funding for startups and dynamic small and medium-sized enterprises (SMEs), which can be a particularly important source of growth and new jobs. Scaling down government-backed guarantees for SME loans as the recovery takes hold, phasing out the temporary SME Financing Facilitation Act by March 2013, and reducing the role of the government in channeling credit (including by fully privatizing Japan Post) would ensure a level playing field and could improve the availability of risk capital. The availability of such financing could also be improved by encouraging use of asset-based lending, including for inventories and accounts receivable. With further reform and financial strengthening, public pension funds could also become an additional source of investment capital as in some other countries. In addition, consideration could be given to refocusing the public asset management company to advance SME restructuring.[9]

Authorities' Views

32. The authorities recognized that structural reforms were vital to lift potential growth, but noted that the challenge may be more daunting than in other countries. Rapid population aging implied a trend decline in labor inputs, while productivity growth was already very high, limiting the scope for further improvements. The government's Growth Strategy already includes some measures to increase the labor force by encouraging higher participation of women, the young, and the aged. But officials agreed that further measures were needed to boost growth, including by promoting employment of highly-skilled foreigners, restructuring SMEs, and deregulating some protected sectors, such as healthcare, childcare, electricity, and agriculture. While the authorities believed that financial sector reforms could lead to a more efficient allocation of capital, such reforms alone would not raise growth much at present as credit demand was low.

E. Defeating Deflation

33. Japan's history of deflation partly explains its weak growth and worsening debt dynamics. Mild deflation for over a decade has contributed to lower private investment and consumption by sustaining high real interest rates and raising real levels of debt. In addition, deflation has reduced tax revenue, and made it more difficult to contain real spending, which led to a rise in public debt-to-GDP. An exit from deflation is therefore essential to support the recovery and to facilitate fiscal consolidation.

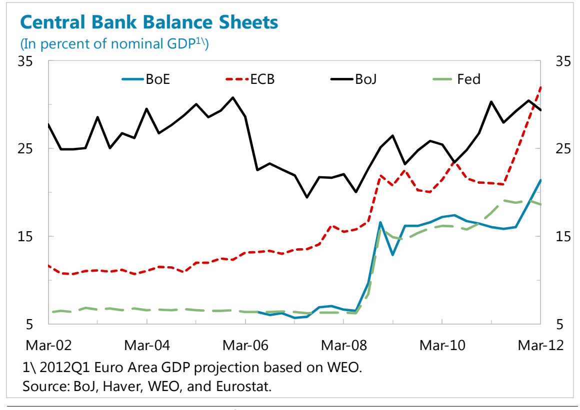
Policy Issues and Staff's Views

34. Staff emphasized that forceful monetary easing should be a key element of a comprehensive package of policies needed to defeat deflation. As the effectiveness of monetary policy is blunted by an already very flat yield curve, structural reforms will also be important to boost confidence, raise domestic demand, and thereby accelerate the closing of the output gap. At the same time, strong action to achieve fiscal consolidation over the medium-term could help ease the way for additional monetary accommodation.

35. Staff welcomed recent measures taken by the Bank of Japan (BoJ) to combat deflation. The adoption in February

[9] See Selected Issues "Financial Policies to Support Growth" by Raphael Lam and Jongsoon Shin (2012).

of a medium to long-term price stability goal of 1 percent has helped clarify the objective of monetary policy. In addition, the BoJ expanded its Asset Purchase Program by ¥15 trillion this year in two steps and extended the maturity of JGB purchases from 1–2 years to 1–3 years (text chart, text table). Together with earlier commitments this is a sizeable monetary expansion, totaling about 5 percent of GDP over the next year.



Bank of Japan Monetary Easing

(In trillions of Yen)	Target Amount	Outstanding Amount [1/]	In Percent of Target Amount
Asset purchases	40.0	17.9	44.8
JGBs	29.0	9.8	33.9
T-Bills	4.5	3.0	67.6
Commercial papers	2.1	1.7	81.3
Corporate bonds	2.9	2.2	74.3
Exchange-traded funds (ETFs)	1.6	1.1	69.3
Japan real estate investment trusts (J-REITs)	0.1	0.1	71.3
Fixed-rate funds-supplying operation against pooled collateral	30.0	33.3	-
Total	70.0	51.3	73.3

Source: BoJ.
1/ As of end-May 2012.

36. Nevertheless, staff project inflation to remain below the inflation goal for an extended period. Even after accounting for the recent easing, staff forecast inflation to rise only to ½ percent in 2014 because of the negative output gap, and to reach the goal of 1 percent by 2017. In addition, the much needed fiscal consolidation would likely dampen domestic demand in the near term, pulling down core inflation. Heightened uncertainty about the global outlook also raises concerns about the likelihood of achieving the inflation goal in coming years.

37. Staff advised further monetary easing. Notwithstanding the current difficult environment for designing and implementing monetary policy, additional effective easing could be delivered. The asset purchase program could be expanded substantially beyond current plans to increase the likelihood of achieving the 1 percent inflation goal by end-2014, under staff's baseline economic outlook.[10] This would help reduce lending rates further. Moreover, such easing could also raise inflation expectations and help depreciate the exchange rate, which would be important channels given the current low interest rate environment that blunts the effectiveness of monetary policy. Extending the maturity of Japanese Government Bond (JGB) purchases beyond 3 years could help reduce medium-term lending rates further. In addition, purchases of private assets, including corporate bonds, equities, and highly-rated securitized SME loans, could stimulate activity by boosting asset prices.

38. The BoJ could consider some enhancements to its communication to increase the effectiveness of monetary policy. The BoJ could extend its inflation forecast to 3 years or beyond to better guide expectations. To underline its commitment to achieving the inflation goal, the BoJ could clarify further that it would be prepared to react effectively to changes in its baseline economic outlook. In addition, the BoJ could emphasize that the current inflation goal of 1 percent is not considered a ceiling, and that a higher inflation rate could be allowed when food and energy prices rise temporarily or the consumption tax rate is increased. Once inflation gets closer to 1 percent, the BoJ could consider an increase in the inflation goal to create a larger buffer against deflationary shocks.

Authorities' Views

39. The BoJ agreed that the recovery was in train and believed that the current policy stance was appropriate. They emphasized that with their powerful easing of

[10] Based on impulse response functions obtained from a structural VAR. See "Bank of Japan's Quantitative and Credit Easing: Are They Now More Effective?" (WP 12/2).

monetary policy, including sizable asset purchases, it will be likely not too long before inflation reaches 1 percent in their baseline outlook. The BoJ noted that monetary policy alone cannot defeat deflation, and emphasized that a combination of structural reforms and powerful monetary easing would contribute to raising growth and inflation expectations, under the low interest rate environment. The BoJ also cautioned that further purchases of JGBs and other types of financial assets would expose their balance sheet to risk. Moreover, in the absence of fiscal reforms further increases in JGB purchases could be viewed as monetization of the fiscal deficit and push interest rates up.

40. The BoJ emphasized the effectiveness of their communication. They noted that the clarification of their goal in February and the Governor's recent speeches had been effective in guiding market expectations. The BoJ explained that its medium- to long-term inflation goal will be regularly reviewed and going forward the BoJ could consider raising its goal, as structural reforms to strengthen growth potential proceed, though such consideration depends on how fast these reforms make progress. In addition, they stressed that they would look through temporary factors, such as an increase of the consumption tax rate, when assessing whether the policy stance was appropriate to achieve the medium-term inflation goal.

41. The authorities shared staff's view that structural reforms are important to defeat deflation. In that regard, a recently established ministerial council laid out priority areas for policies to combat deflation including through regulatory and structural reforms.

F. Responding to a Downside Scenario

42. If the outlook for growth worsens sharply in the near term, staff noted that further easing of monetary policy would be advisable, beyond that recommended in the baseline scenario. Fiscal policy could also play a role, although it is constrained by the limited fiscal space. While maintaining the medium-term fiscal target, automatic stabilizers could be allowed to work and in case of a severe downturn small and targeted fiscal measures could be introduced, as long as JGB yields remain low. However, staff stressed that it would not be advisable to delay legislation of the increase in the consumption tax given its importance as a signal of commitment to consolidation. If financial markets were disrupted by heightened global turmoil, the authorities could consider providing additional liquidity together with other tailored actions to address market disruptions.

The Authorities' Views

43. The authorities broadly agreed with staff's advice. They emphasized that their commitment to fiscal reform over the medium-term was an essential stabilizing factor that would provide markets with confidence during a downturn. The BoJ agreed that further easing of monetary policy could play a role if the outlook for growth worsened sharply.

G. Assessing External Stability

44. Japan's current account surplus remains sizeable, while the yen has appreciated significantly. The current account surplus has narrowed from almost 5 percent of GDP in 2007, prior to the global financial crisis, and is expected to be around 2¼ percent of GDP in 2012 (Figure 5). The yen has appreciated in real effective terms by 27 percent since the Lehman event in late 2008, initially due to an unwinding of carry trades and later as a result of safe haven flows during periods of global financial distress.

45. The authorities intervened during the past year to counter volatility in exchange rates. The intervention in Oct/Nov 2011 was sizable (at about US$120 billion) and increased foreign exchange reserves (excluding gold) to US$1,258 billion by end-2012, in response to

Figure 5. External Sector Developments

Japan's current account surplus declined to 2 percent of GDP in 2011, because of a worsening of the trade balance as a result of the earthquake, Thai floods, and yen appreciation.

Current Account

(In percent of GDP)

Goods Trade Balance
Services Trade Balance
Income
Current Account Balance

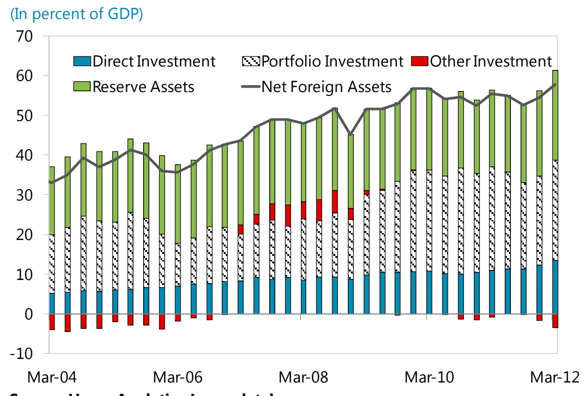
Mar-00 Mar-02 Mar-04 Mar-06 Mar-08 Mar-10 Mar-12

Source: Haver.

Net foreign assets, however, are sizeable …

Net International Invesment Position

(In percent of GDP)

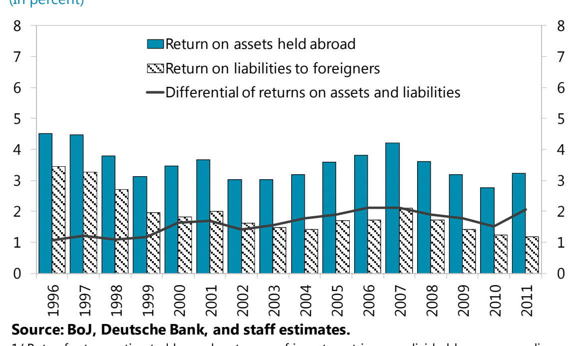


Source: Haver Analytics Japan database.

…and therefore, the investment income surplus (3 percent of GDP in 2011) is expected to remain large, particularly given higher returns on assets than on liabilities.

Estimated Rate of Return on External Assets and Liabilities

(In percent)



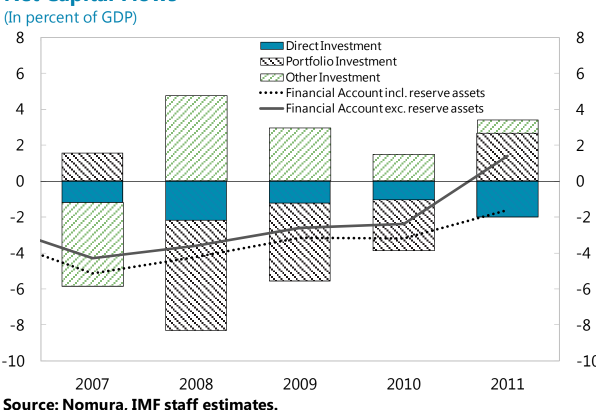
Source: BoJ, Deutsche Bank, and staff estimates.

1/ Rate of return estimated by each category of investment income divided by corresponding stock levels obtained from international investment positions.

Safe-haven portfolio inflows kept the yen at a high level in 2011,…

Net Capital Flows

(In percent of GDP)

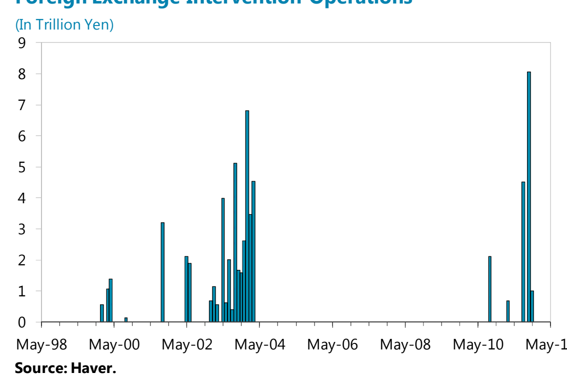


Source: Nomura, IMF staff estimates.

…and as a result of increased volatility, the authorities intervened three times during 2011, …

Foreign Exchange Intervention Operations

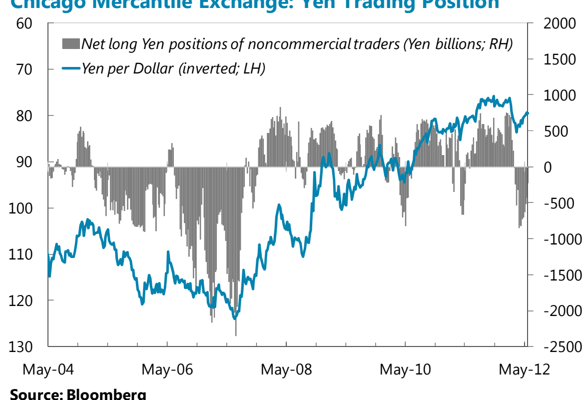
(In Trillion Yen)



Source: Haver.

… which unwound some noncommercial trades on long yen positions in early 2012.

Chicago Mercantile Exchange: Yen Trading Position

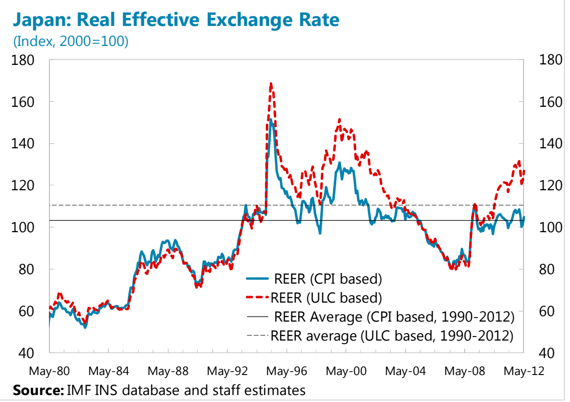


Source: Bloomberg

a sharp appreciation of the yen as investors sought a safe haven. Staff advised that Japan, like other advanced economies, should allow the market to determine the exchange rate, although intervention could be used to counter volatile or disorderly market conditions.

46. Japan's external position appears moderately weaker than that consistent with underlying fundamentals. The current account has averaged about 3 percent of GDP over the last decade and is expected to remain around 2 percent of GDP over the medium-term, as population aging begins to reduce private saving. After taking into account desirable fiscal consolidation and structural policies, the current account's normal level ("the norm") is estimated by staff to be around 3 to 4 percent of GDP, leaving the gap between the current level and the norm at around 1 to 2 percent of GDP (Appendix III). This implies that the current account position is moderately weaker than suggested by the fundamentals (i.e, that the yen is moderately overvalued from a medium-term perspective).

47. Assessing the current level of the exchange rate against long-run averages also suggests that the yen is moderately overvalued. While the real effective exchange rate (REER), measured using relative consumer prices, is close to its 20-year average, it is about 10-15 percent more appreciated than the 20-year average of the REER when measured using relative unit labor costs (text figure).



Authorities' Views

48. The authorities expressed concern about the yen's volatility and disorderly movements caused by speculation. They agreed with staff that the yen was overvalued, but believed that the overvaluation was "substantial" rather than "moderate." They noted that safe-haven capital inflows had likely led to an over-shooting of the exchange rate. They emphasized that the REER had appreciated sharply since the fall of 2008, including a strengthening by about 40–60 percent against the Euro and the Korean won in real terms. In addition, they pointed out that the economy faces the burden of recovery from the severe earthquake, a challenging fiscal situation, and a shift of the trade balance into deficit.

H. Securing Financial Stability

49. The financial system has weathered recent shocks well, although strains from the European debt crisis have risen. The earthquake and spillovers from the Thai floods led to significant economic disruptions but had only a limited effect on financial stability. Rising dollar funding costs in late 2011 were contained through coordinated central bank action, but costs have risen again in recent weeks as a result of uncertainty in Europe (Figure 6). Direct exposures of Japanese financial institutions to peripheral European countries are small (less than 1 percent of banks' total assets), but indirect exposures through financial ties to core European countries are significant (Box 4).

Policy Issues and Staff's Views

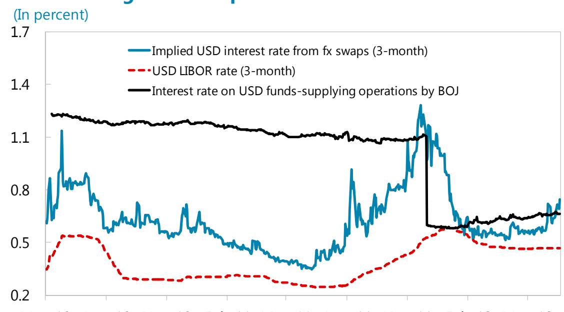
50. The FSSA found that important steps were taken to strengthen the financial system since the last assessment in 2003. Financial regulation and supervision have been effective in encouraging the large

Figure 6. Financial Soundness Indicators

U.S. dollar funding costs in Japan increased in late 2011 due to heightened concerns over the European debt situation, but receded after coordinated action by major central banks. More recently, funding costs have edged up.

USD Funding Cost in Japan

(In percent)



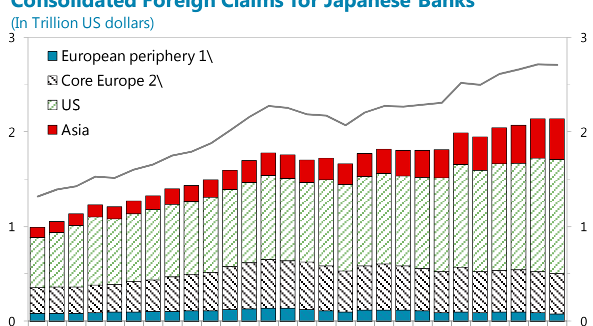
Source: Bloomberg and staff estimates.

1/ Interest rates on the USD funds-supplying operations are calaculated as USD OIS + 100bp until Nov, 29 2011 and OIS rate + 50 bp afterwards.

Japanese banks' direct exposures to peripheral European countries are limited. They have expanded overseas, which partly offset the deleveraging of European banks in the region.

Consolidated Foreign Claims for Japanese Banks

(In Trillion US dollars)



1\ Greece, Ireland, Italy, Portugal, Spain

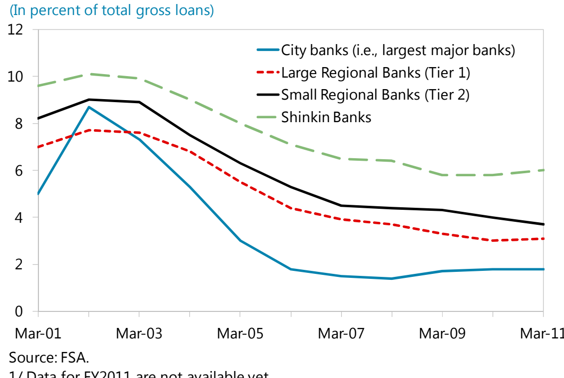
2\ Germany, France, UK, Switzerland

Source: BIS.

NPLs have fallen since the early 2000s, and have remained stable despite the global financial crisis, though the NPLs for smaller regional and shinkin banks are still high.

Japanese Banks: Non-performing Loans

(In percent of total gross loans)



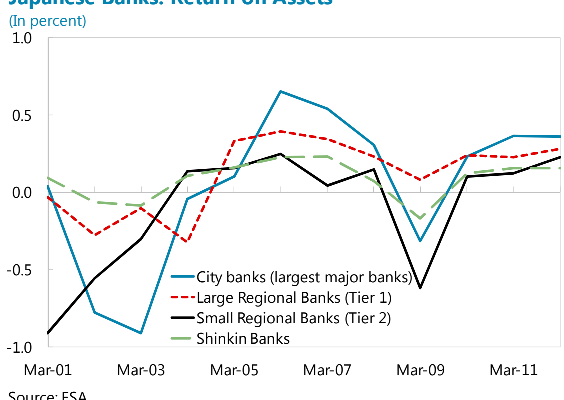
Source: FSA.

1/ Data for FY2011 are not available yet.

Banks' profitability recovered from the crisis, but remains around half the levels of the mid-2000s.

Japanese Banks: Return on Assets

(In percent)

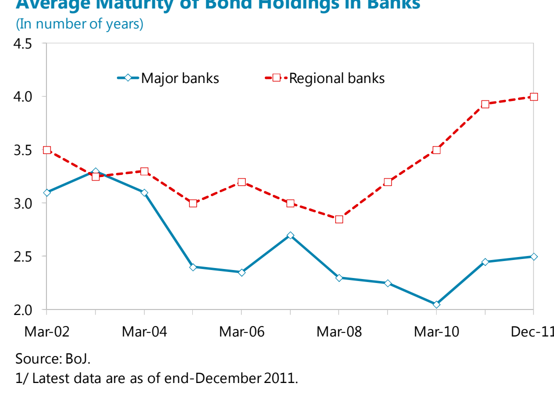


Source: FSA

Major banks have limited their interest rate risk by holding short maturities of JGBs, but regional banks are more exposed to interest rate risk.

Average Maturity of Bond Holdings in Banks

(In number of years)



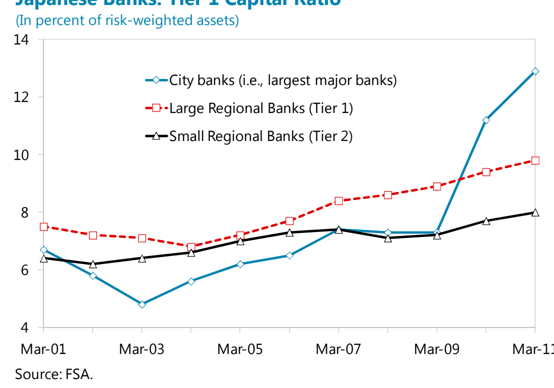
Source: BoJ.

1/ Latest data are as of end-December 2011.

Major banks also enhanced their capital positions by issuing equity and retaining earnings since the Lehman crisis, in preparation for the Basel III requirement.

Japanese Banks: Tier 1 Capital Ratio

(In percent of risk-weighted assets)



Source: FSA.

Box 4. Potential Financial Spillovers from the European Debt Crisis[1]

A key downside risk for Japan, and Asia more broadly, is an escalation of the Euro area debt crisis. So far, deleveraging by European banks has been orderly with only a modest impact on credit conditions in Japan and the region. Nonetheless, spillovers could intensify if European banks come under pressure to reduce their balance sheets to cope with high rollover needs, weak economic growth, and the need to strengthen their capital base (GFSR and REO 2012).

The FSSA highlighted several financial spillover channels, including losses from overseas exposures and funding pressures:

- Losses from overseas exposures of Japanese financial institutions are likely to be limited, if the crisis is contained to the peripheral European countries. Japanese banks hold about 12 percent of their assets as foreign claims, of which about ¼ are on Europe. The majority of banks' claims on Europe are on the nonfinancial sector (about 60 percent) in core countries. While insurance companies invest about 15–20 percent of their assets in foreign securities, direct exposures to peripheral European countries have been unwound and the amount was negligible as of end-2011.
- The risks to the financial system in Japan, however, would be more severe if the European crisis impacted U.S. and U.K banks or hit the claims on the nonfinancial sector in core European countries. Assuming sizeable credit and funding shocks (100 percent of loss given default and 50 percent discount on asset liquidation) on cross-border banking claims and no policy response by country authorities, such shocks would impair substantially the tier 1 capital of Japanese banks, based on network analysis prepared for the FSAP update. Market distress correlation measures also point to a rise of spillover risks between Japanese financial institutions and systemic U.S. and European financial institutions during crisis periods.
- U.S. dollar funding conditions are likely to remain favorable for Japanese banks owing to their large holdings of collateral needed to access central bank facilities. However, Japanese securities firms will need to manage carefully their day-to-day dollar liquidity because of their reliance on wholesale market funding. In addition, some foreign banks in Japan (especially European) might face difficulties in meeting both their yen and dollar funding needs locally, as was observed in 2008-09.

The FSAP stress tests also assessed the impact of a global recession scenario that could be triggered by an intensification of the European crisis. The tests suggest that, in the near term, Japanese banks and insurers have the capacity to withstand a severe global growth shock and losses from foreign exposures. The banking sector solvency tests, however, did not account for risks from large exposures or the impact of adjusting various support measures to SMEs. Moreover, stress tests, by their nature, are partial analyses and more severe tail risk scenarios, with feedback from fiscal-financial sector linkages, could be more detrimental to financial stability than suggested by the tests.

On the upside, an orderly deleveraging by European banks is providing opportunities for Japanese financial institutions. They have been expanding overseas, especially in the region, in the face of weak domestic demand and the strong yen. Cross-border exposures of Japanese banks and insurance companies are rising (having doubled since 2004 to reach US$2.7 trillion as of December 2011 for banks), though are still relatively low compared to U.S. and European counterparts. An increasing role of Japanese financial institutions in the region could help mitigate the impact of a retreat of European banks, particularly on syndicated loans and trade finance.

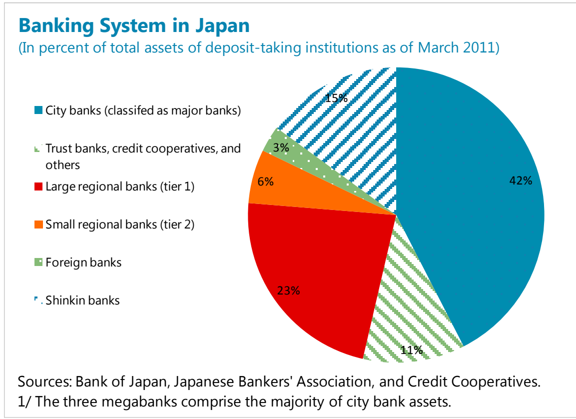
[1] Prepared by Raphael Lam.

banks to strengthen their capital positions and building the resilience of insurers to shocks. Moreover, Japan has a high level of compliance with international core principles.[11]

51. Nevertheless, financial institutions' low core profitability and large holdings of JGBs and equities raise some concerns about financial stability. The FSAP stress tests suggest that in the near term banks and insurers would be resilient to severe economic stress and moderate market shocks. However, the key challenges banks face are to raise profitability in a low growth environment, while managing risk associated with their JGB and equity holdings. Specifically:

- Despite the improvement in banks' net income during FY2011 as a result of large trading gains, core profitability remains low, with an average return on assets of only 0.3 percent due to a narrowing of the interest margin (Table 6). This limits their capacity to rebuild capital buffers after a shock. Banks' nonperforming loans ratio has stayed low (at 3 percent of total loans in early 2011), but the BoJ estimates that this could rise by about 1 percentage point if SMEs with restructured loans fail to improve their business conditions.[12]

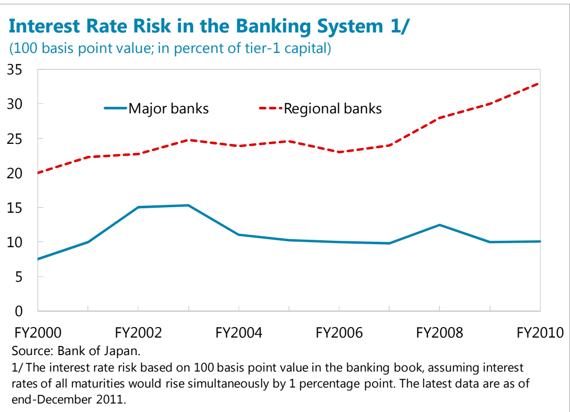
- Interest rate risk has increased since the global financial crisis (text figure). Banks' holdings of JGBs have grown to about one-fifth of their assets, most of which are available-for-sale securities (that are marked to market prices) in the banking book. Major banks that comprise over 40 percent of total bank assets (text figure) have contained their interest rate risk by holding short maturities, averaging 2½ years. If



Banking System in Japan
(In percent of total assets of deposit-taking institutions as of March 2011)

Sources: Bank of Japan, Japanese Bankers' Association, and Credit Cooperatives.
1/ The three megabanks comprise the majority of city bank assets.

interest rates rise by 1 percentage point across all maturities, major banks' exposure to interest rate risk would be about 10 percent of Tier 1 capital (text figure). Regional banks, however, hold longer maturity JGBs and their interest rate risk would be about 1/3 of their Tier 1 capital in such a scenario. In the unlikely event of a prolonged growth shock, combined with a sharp rise in government bond yields, financial stability might be challenged.



Interest Rate Risk in the Banking System 1/
(100 basis point value; in percent of tier-1 capital)

Source: Bank of Japan.
1/ The interest rate risk based on 100 basis point value in the banking book, assuming interest rates of all maturities would rise simultaneously by 1 percentage point. The latest data are as of end-December 2011.

- Market risk from equities has declined but is still sizable. Equity holdings by banks (almost 40 percent of total capital) and non-life insurers (20 percent of assets) imply that they would face substantial losses if stock prices fell sharply.

- Looking forward, the expansion of financial institutions overseas, while welcome, would present challenges to supervisors in monitoring cross-border exposures.

52. The authorities intend to implement Basel III for internationally-active banks. The FSAP update estimates that applying

[11] The core principles assessed included the Basel Core Principles for banks, Insurance Core Principles (ICP) for insurance companies, and International Organization of Securities Commissions (IOSCO) Principles and Objectives.

[12] The SME Financing Facilitation Act introduced in 2009 was accompanied by a change in FSA's guidelines that relaxed the requirements for classifying restructured loans as "normal," thereby understating the underlying credit risks.

immediately and in full the Basel III capital definition for these banks, while keeping the Basel II definition of RWA, would reduce their Tier 1 capital ratios by about 2¼ percentage points (from 12¾ percent in March 2011 under Basel II). Applying more prudent risk weights (in line with the Basel III phase-in as of September 2011) would further reduce the ratio by about 1 percentage point for the three mega banks. The ratio would still be above the Basel III minimum requirement that will rise to 6 percent by 2015.

53. The FSSA recommended a number of measures to improve the monitoring of systemic risks and strengthen further the financial stability framework, which require timely attention and implementation. The main recommendations, which are covered in detail in the FSSA, are summarized below:

- *Risk monitoring*. Thematic risk assessments could be put in place to monitor financial institutions' readiness to manage systemic risks. The BoJ and Financial Services Agency (FSA) could consider formalizing arrangements to intensify their information sharing and oversight of systemically relevant financial institutions, markets and infrastructure. In addition, the recent increase in cross-border activities by some Japanese financial institutions requires deeper collaboration between the FSA and foreign supervisory authorities (for example through an active use of Memoranda of Understanding).
- *Prudential framework*. The authorities could tighten large exposure limits on lending by banks and raise capital requirements for domestic-oriented banks.[13] These banks could be encouraged to improve their profitability so as to enhance their growth supporting role and build their resilience to shocks. For insurers, the solvency assessment needs to be based on an economic valuation by taking into account the full time horizon of insurance contracts (rather than just up to 10 years as required under current regulations). In addition, steps are needed to strengthen the supervision of private pension funds, including by requiring participants' representation on the boards of corporate pension plans and establishing a mandatory guarantee fund for defined benefit pensions.
- *Crisis resolution*. Improvements in the crisis resolution framework should be explored to ensure orderly resolution for systemically-important nonbank financial institutions.
- *Global regulatory reform agenda*. The FSA should review the adequacy of its skills and resources given the workload involved in implementing the global regulatory reform agenda.

Authorities' Views

54. The authorities welcomed the main findings of the FSSA and broadly agreed with most recommendations. They noted that they continue to monitor risks closely to ensure financial stability, and continue to carry out inspections and stress tests. These tests include a rise in interest rates, although they consider the risk of a sharp rise in government bond yields to be remote. In the face of overseas expansion by financial institutions, the FSA also monitors closely cross-border activities and the risks financial institutions assume, and intends to develop closer ties with supervisory agencies in the region. The authorities also noted the potential adverse impact on financial markets of some global regulatory reforms. For instance, the extraterritorial application of the Volcker rule might lead to the withdrawal of foreign institutions from market-making activities in Japan and adversely affect liquidity and pricing in the JGB market.

[13] The domestic-oriented banks (mostly regional and shinkin banks) account for about 40 percent of bank assets and are currently subject to a capital requirement of 4 percent of risk-weighted assets, lower than their internationally-active peers. As of June 2012, there is no plan to subject these banks to Basel III requirements.

55. The authorities considered supervision and financial sector regulation to be effective and strive to improve their activities. Several initiatives are underway in areas highlighted by the FSSA, including the implementation of the new rules on Basel III beginning in FY2013 in line with the timeline announced by the G-20, and a review of the large exposure limits by Japan's Financial System Council.[14] They stated that the FSA and the BoJ attach utmost importance to close communication and coordination, and in practice exchange information and discuss regularly and frequently, and believed that current practice is effective and most efficient in dealing with financial stability issues flexibly. The FSA was comfortable with the soundness of domestic-oriented banks at present, but will consider any further action, if and when necessary. The FSA encouraged these financial institutions to continuously improve their capital positions through enhanced profitability and risk management, making use of the Early Warning System and off-site monitoring. In recent years, the FSA has continued to increase its workforce and budget despite an overall reduction in government personnel and budget. Further increases may need to be contemplated, while efforts should be made to rationalize work and improve overall efficiency. The authorities were committed to working with the Financial Stability Board on resolution regimes, and address issues in an orderly manner, taking into account discussions in the international fora.

STAFF APPRAISAL

56. Japan's economy is set to recover despite a worsening of the global outlook. Reconstruction activity is likely to offset headwinds from a fragile external environment. Risks to this outlook are tilted to the downside and primarily stem from the possibility of an escalation of turmoil in Europe and a sharper-than-expected slowing of the Chinese economy. The risk of electricity shortages from closure of most nuclear power plants appears manageable.

57. Reducing the public debt burden will require fiscal adjustment of 10 percent of GDP over a decade. Passage of legislation to double the consumption tax rate to 10 percent by 2015 is a crucial step and would demonstrate a commitment to fiscal reform. Putting the public-debt-to-GDP ratio on a clear downward path, however, will require an additional 5 percent of GDP adjustment.

58. This adjustment should be designed to limit any adverse impact on growth and equity. In particular, raising the consumption tax would be less distortionary and fairer than other taxes in addressing intergenerational inequities. It would also provide room to cut more distortionary taxes such as the corporate tax. In addition, incentives to work could be increased by eliminating the tax deduction for dependent spouses and raising the pension retirement age. At the same time, targeted transfers to lower-income households could be introduced to address concerns about the regressive nature of the consumption tax. Delaying fiscal adjustment could be costly and would serve to worsen intergenerational equity.

59. Speedy implementation of far-reaching structural reforms is essential to raise growth. Given Japan's rapidly aging population, reforms should focus on increasing the labor force by raising incentives for women and the old-aged to work and by boosting immigration. Productivity in domestic sectors could be increased by easing regulations. Additionally, Japan could tap into regional growth momentum further by entering high-quality free trade agreements with key trading partners, including the Trans Pacific Partnership. Finally, financial intermediation could be improved by reducing the role of the

[14] The Financial System Council is an advisory body established under the FSA, comprising academics and professionals.

government in channeling credit and by increasing the availability of risk capital.

60. Further monetary easing should be a key element of a comprehensive package of policies needed to defeat deflation. Additional effective easing could be delivered by expanding the BoJ's asset purchase program substantially beyond current plans, to accelerate achievement of the 1 percent inflation goal. In addition, communication could be enhanced by emphasizing that the inflation goal is not considered a ceiling, and that a higher inflation rate could be allowed in response to temporary price shocks.

61. If the outlook for growth worsens sharply, further easing of monetary policy would be advisable beyond that recommended in the baseline scenario. Fiscal policy could also play a role through automatic stabilizers, although it is constrained by the limited fiscal space. It would not be advisable to delay legislation of the increase in the consumption tax.

62. Japan's external position appears moderately weaker than that consistent with medium term fundamentals. Following a sizable appreciation of the yen since the onset of the global financial crisis and a narrowing of the current account surplus to 2 percent of GDP in 2011, the yen now appears moderately overvalued from a medium-term perspective.

63. The financial system is stable and could be further strengthened by improving the monitoring of systemic risks and bolstering the financial stability framework. In this context, the FSSA recommendations focus on three main areas. Risk monitoring could be enhanced by putting in place thematic risk assessments, especially with regard to financial institutions' sizable holding of JGBs and equities. The prudential framework could be improved, including by tightening large exposure limits on lending by banks, raising capital requirements for domestic-oriented banks, and basing the solvency assessment on a more refined economic valuation for insurers. There is also room for improving the crisis resolution framework to ensure orderly resolution for systemically-important nonbank financial institutions.

64. It is recommended that the next Article IV consultation take place on the standard 12-month cycle.

Table 1. Japan: Selected Economic Indicators, 2007–13

Nominal GDP: US$ 5,867 billion (2011)
Population: 127.8 million (2011)
GDP per capita: US$ 45,900 (2011)
Quota: SDR 15,628.5 million

	2007	2008	2009	2010	2011	Proj. 2012	Proj. 2013
Growth (percent change) 1/							
Real GDP	2.2	-1.0	-5.5	4.4	-0.7	2.4	1.5
Domestic demand	1.1	-1.3	-4.0	2.7	0.1	3.0	1.5
Private consumption	0.9	-0.9	-0.7	2.6	0.1	2.7	1.7
Residential investment	-9.8	-6.6	-16.6	-4.2	5.4	0.7	1.5
Business investment	4.9	-2.6	-14.3	0.5	1.1	3.2	4.8
Government consumption	1.1	-0.1	2.3	2.1	1.9	2.0	-0.5
Public investment	-5.9	-7.4	7.0	0.4	-3.6	6.3	-12.5
Stockbuilding 2/	0.3	0.2	-1.6	0.8	-0.5	0.2	0.5
Net exports 2/	1.1	0.2	-1.5	1.7	-0.8	-0.5	0.0
Exports of goods and services	8.7	1.4	-24.2	24.2	-0.1	3.1	5.0
Imports of goods and services	2.3	0.3	-15.7	11.1	5.9	7.4	5.7
Inflation (annual average)							
CPI	0.1	1.4	-1.3	-0.7	-0.3	0.2	0.0
GDP deflator	-0.9	-1.3	-0.5	-2.1	-2.1	-0.1	-0.1
Unemployment rate (annual average)	3.8	4.0	5.1	5.1	4.6	4.5	4.4
Government (percent of GDP)							
General government							
Revenue	31.2	31.6	29.6	29.6	30.6	30.9	31.4
Expenditure	33.3	35.7	40.0	39.0	40.7	40.9	39.9
Balance	-2.1	-4.1	-10.4	-9.4	-10.1	-9.9	-8.6
Primary Balance	-2.1	-3.8	-9.9	-8.7	-9.2	-8.8	-7.4
Public Debt, gross	183.0	191.8	210.2	215.3	229.9	234.5	240.0
Money and credit (percent change, end-period)							
Base money	0.4	1.8	5.2	7.0	13.5	...	...
M2 (period average)	2.1	1.8	3.1	2.3	3.2	...	...
Domestic credit	-2.3	1.6	0.4	1.3	0.8	...	...
Bank lending	0.7	4.6	-0.9	-1.8	0.7	...	...
Interest rate							
Overnight call rate, uncollateralized (end-period)	0.46	0.10	0.09	0.1	0.1	...	...
Three-month CD rate (annual average)	0.51	0.51	0.33	0.3	0.3	...	...
Official discount rate (end-period)	0.75	0.30	0.30	0.3	0.3	...	...
Balance of payments (in billions of US$)							
Current account balance	212.2	159.8	146.6	204.0	119.2	130.3	167.0
Percent of GDP	4.9	3.3	2.9	3.7	2.0	2.2	2.7
Trade balance	105.1	38.4	43.4	91.0	-20.5	-10.2	35.1
Percent of GDP	2.4	0.8	0.9	1.7	-0.3	-0.2	0.6
Exports of goods, f.o.b.	678.4	746.5	545.3	730.1	787.2	807.4	830.0
Imports of goods, f.o.b.	573.3	708.0	501.9	639.1	807.7	817.6	795.0
Oil imports (trade basis)	130.1	190.6	99.9	134.3	185.0	227.8	233.7
FDI, net (percent of GDP)	-1.2	-2.2	-1.2	-1.1	-2.0	-1.3	-1.3
Terms of trade (percent change)	-2.1	-9.6	19.5	-3.3	-7.9	3.9	7.0
Change in reserves	36.5	30.8	27.3	44.3	177.0	...	...
Total reserves minus gold (in billions of US$)	952.8	1009.4	1022.2	1096.2	1258.2	...	...
Exchange rates (annual average)							
Yen/dollar rate	117.8	103.4	93.6	87.8	79.8	...	...
Yen/euro rate	161.4	152.1	130.3	116.5	111.0	...	...
Real effective exchange rate 3/	83.6	93.7	110.5	118.2	126.2	...	...
Real effective exchange rate (CPI-based)	83.2	90.1	101.5	102.7	104.4	...	...

Sources: Global Insight, Nomura database; IMF, Competitiveness Indicators System; and Fund staff estimates and projections as of Feb 21, 2012.
1/ Annual growth rates and contributions are calculated from seasonally adjusted data.
2/ Contribution to GDP growth.
3/ Based on normalized unit labor costs; 2000=100.

Table 2. Japan: Balance of Payments, 2006-11

	2006	2007	2008	2009	2010	2011
			(In billions of U.S. dollars)			
Current account	171.0	212.2	159.8	146.6	204.0	119.2
Trade balance	81.1	105.1	38.4	43.4	91.0	-20.5
Exports	615.7	678.4	746.5	545.3	730.1	787.2
Imports	534.6	573.3	708.0	501.9	639.1	807.7
Invisibles	89.9	107.1	121.4	103.2	113.1	139.8
Nonfactor services	-18.2	-21.2	-20.8	-20.4	-16.1	-22.2
Investment income	118.8	139.9	155.3	135.9	141.5	175.9
Net transfers	-10.7	-11.6	-13.1	-12.3	-12.4	-13.8
			(In percent of GDP)			
Current account	3.9	4.9	3.3	2.9	3.7	2.0
Trade balance	1.9	2.4	0.8	0.9	1.7	-0.3
Invisibles	2.1	2.5	2.5	2.0	2.1	2.4
Nonfactor services	-0.4	-0.5	-0.4	-0.4	-0.3	-0.4
Investment income	2.7	3.2	3.2	2.7	2.6	3.0
Net transfers	-0.2	-0.3	-0.3	-0.2	-0.2	-0.2
			(In billions of U.S. dollars)			
Capital account	-4.7	-4.1	-5.6	-5.0	-5.0	0.4
Financial account	-134.7	-224.3	-204.6	-158.2	-174.7	-94.9
Direct investment, net	-56.7	-51.7	-106.2	-62.5	-58.8	-117.5
Direct investment abroad	-50.2	-73.7	-130.9	-74.2	-57.3	-115.7
Foreign direct investment in Japan	-6.4	22.0	24.7	11.7	-1.5	-1.8
Portfolio investment, net	127.4	68.3	-298.7	-217.5	-153.8	155.4
Of which: Official	104.6	177.5	-27.2	-77.0	79.0	-23.3
Inflows	-71.8	-127.2	-191.8	-161.4	-264.6	-106.6
Outflows	199.2	195.4	-106.8	-56.1	110.8	262.0
Other investment, net	-173.4	-204.4	231.0	149.1	82.2	44.2
Of which: Official	-24.8	0.4	111.5	-119.4	-26.7	0.0
Inflows	57.6	-65.9	420.4	535.8	274.7	146.1
Outflows	-231.0	-138.5	-189.4	-386.7	-192.5	-101.9
Reserve assets	-32.0	-36.5	-30.8	-27.3	-44.3	-177.0
Errors and omissions, net	-31.6	16.2	50.3	16.6	-24.3	-24.7
Memorandum items :						
Nominal GDP (US$ billion)	4357.4	4358.6	4854.3	5038.8	5500.0	5874.4
Net foreign assets (NFA)/GDP	42.4	48.8	45.0	56.5	52.2	54.0
Return on NFA (In percent)	7.0	6.8	6.3	5.0	4.7	5.4

Sources: Global Insight, Nomura database, Haver Analytics; and Fund staff estimates.

Table 3. Japan: External and Financial Indicators, 2007-12
(In percent of GDP, unless otherwise indicated)

	2007	2008	2009	2010	2011	Latest 2012
External indicators						
Real exports of goods and services (percent change) 1/	8.7	1.4	-24.2	24.2	-0.1	1.0
Real imports of goods and services (percent change) 1/	2.3	0.3	-15.7	11.1	5.9	6.6
Terms of trade (percent change) 1/	-2.1	-9.6	19.5	-3.3	-7.9	-4.7
Current account balance 2/	4.9	3.3	2.9	3.7	2.0	1.5
Capital and financial account balance	-4.5	-4.2	-2.9	-2.7	1.1	-2.4
Of which :						
Inward portfolio investment	4.5	-2.2	-1.1	2.0	4.5	-0.3
Inward direct investment	0.5	0.5	0.2	0.0	0.0	0.0
Other investment (net)	-4.8	4.3	2.8	1.3	0.5	4.9
Total reserves minus gold (US$ billion)	952.8	1009.4	1022.2	1096.2	1258.2	1259.3
In months of imports of goods and services	16.3	14.3	19.8	16.6	15.9	...
Broad money (M2 + CDs) to reserves ratio	0.6	0.7	0.8	0.8	0.9	0.8
Foreign assets of Other Depository Corporations (US$ billion)	1540.4	1861.3	1876.7	2113.2	2330.2	...
Foreign liabilities of Other Depository Corporations (US$ billion)	765.9	1077.9	1231.9	1344.0	1425.0	...
Net international investment position (US$ billion)	2129.4	2188.9	2855.5	2876.2	3188.5	...
Of which :						
External loan liabilities	721.1	739.9	873.7	1038.8	1233.8	...
External public sector debt (gross) 3/	581.0	620.6	640.2	752.4	1094.7	...
External loan liabilities to exports ratio	0.9	0.9	1.4	1.2	1.4	...
External interest payments to exports (in percent) 4/	2.5	1.9	1.6	0.9	0.8	...
Nominal effective exchange rate (percent change, period avg)	-5.3	11.7	14.4	4.4	5.8	7.4
Financial market indicators						
General government gross debt	183.0	191.8	210.2	215.3	229.9	...
Interest rates (percent, end-year)						
3-month General collateral repo rate 5/	0.60	0.22	0.13	0.12	0.11	0.11
3-month General collateral repo rate, real 5/	-0.10	-0.18	0.72	0.41	-0.19	0.00
3-month interest rate spread vis-à-vis U.S.	-2.48	0.18	0.06	-0.03	0.09	0.09
Stock market index (TOPIX, percent change, end-year) 6/	-12.2	-41.8	5.6	-1.0	-18.9	-4.8
Banking sector risk indicators						
Total loans to assets (in percent)	53.8	53.2	53.2	51.3	49.8	49.4
Total loans to deposits (in percent)	75.5	77.5	74.6	72.1	70.6	69.8
Share of real estate sector in total lending (in percent)	19.2	19.0	20.6	20.8	20.6	...
Share of nonperforming loans in total loans (In percent, end-March) 7/	3.1	2.9	2.8	2.9	2.9	...
Total capital ratio (in percent, end-March) 7/	12.6	12.0	12.6	13.6	14.1	...

Sources: Global Insight, Nomura Database; IMF, International Financial Statistics; Fitch IBCA; and Fund staff estimates.
1/ 2012 number is year on year change for the first quarter.
2/ 2012 number is the seasonally adjusted first quarter data.
3/ Public sector debt securities and other loan liabilities.
4/ Other investment income, debit.
5/ 3-month Tokyo repo rate since October 2007.
6/ Twelve-month percent change for the latest figure.
7/ All deposit taking institutions. Aggregated based on individual banks' unconsolidated data.

Table 4. Japan: Medium-Term Projections, 2010-17

(Percentage change from the previous period, unless otherwise indicated)

	2010	2011	2012	2013	2014	2015	2016	2017
Real GDP	4.5	-0.7	2.4	1.5	1.5	1.2	1.1	1.1
Total domestic demand	2.7	0.1	3.0	1.5	1.4	1.1	1.0	1.0
Net exports (contribution)	2.0	-0.8	-0.5	0.0	0.1	0.1	0.1	0.1
Unemployment rate (percent)	5.1	4.6	4.5	4.4	4.3	4.2	4.1	4.0
CPI inflation	-0.7	-0.3	0.2	0.0	0.5	0.7	0.8	1.0
Core Inflation (excluding food and energy)	-1.2	-1.0	-0.3	0.1	0.5	0.7	0.8	1.0
Output gap	-3.6	-4.5	-2.6	-1.7	-0.8	-0.3	0.0	0.1
Overall fiscal balance 1/	-9.4	-10.1	-9.9	-8.6	-7.8	-7.5	-7.5	-7.4
Primary balance 1/	-8.7	-9.2	-8.8	-7.4	-6.4	-5.8	-5.5	-5.1
General Government Debt 1/								
Gross	215.2	229.8	234.5	240.0	244.4	248.6	252.4	255.7
Net	112.8	126.7	134.4	141.9	148.2	154.1	159.7	164.7
External Current Account Balance 1/	3.7	2.0	2.2	2.7	2.6	2.3	2.1	1.9
National Savings 1/	23.5	21.9	22.4	23.2	23.2	22.9	22.6	22.4
Private	25.5	24.6	24.7	24.8	24.2	23.8	23.5	23.4
Public	-2.0	-2.7	-2.3	-1.6	-1.0	-0.9	-1.0	-1.0
National Investment 1/	19.8	19.9	20.3	20.4	20.5	20.6	20.5	20.4
Private	15.2	15.3	15.5	16.3	16.5	16.7	16.8	16.9
Public	4.6	4.7	4.8	4.2	4.0	3.8	3.7	3.6

Sources: Global Insight, Nomura database; and Fund staff estimates.

1/ In percent of GDP.

Table 5. Japan: General Government Operations, 2006–13 1/

(In percent of GDP)

	2006	2007	2008	2009	2010	2011 Est.	2012 Proj.	2013 Proj.
Total revenue	30.8	31.2	31.6	29.6	29.6	30.6	30.9	31.4
Taxes 2/	17.7	18.0	18.1	15.9	16.1	16.8	17.3	17.6
Social security contributions	10.9	11.0	11.5	11.8	11.9	12.2	12.2	12.4
Grants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other revenue	2.3	2.3	2.1	1.9	1.7	1.5	1.4	1.4
o/w Interest income	1.9	2.0	1.8	1.7	1.5	1.3	1.1	1.1
Total expenditure	34.5	33.3	35.7	40.0	39.0	40.7	40.9	39.9
Expense	33.2	33.3	34.6	38.4	38.0	39.8	39.9	39.6
Compensation of employees	6.2	6.1	6.2	6.4	6.2	...	...	...
Use of goods and services	3.3	3.3	3.2	3.7	3.7	...	...	...
Consumption of fixed capital	2.8	2.8	2.9	3.1	3.0	3.0	3.0	3.0
Interest	1.8	1.9	2.0	2.0	2.0	2.2	2.2	2.3
Grants	0.1	0.1	0.1	0.1	0.1	...	...	...
Social security benefits	16.4	16.6	17.4	19.5	19.7	20.7	20.6	20.7
Other expense	2.7	2.6	2.7	3.6	3.3	...	...	...
Net acquisition of nonfinancial assets	1.3	0.0	1.1	1.6	1.0	0.9	1.0	0.3
Acquisitions of nonfinancial assets	4.0	2.7	4.0	4.6	4.0	3.9	3.9	3.3
o/w Public investment	3.3	3.1	3.0	3.4	3.3	3.4	3.6	3.0
o/w Land acquisition	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Consumption of fixed capital (-)	-2.8	-2.8	-2.9	-3.1	-3.0	-3.0	-3.0	-3.0
Net lending/borrowing (overall balance)	-3.7	-2.1	-4.1	-10.4	-9.4	-10.1	-9.9	-8.6
Primary balance	-3.7	-2.1	-3.8	-9.9	-8.7	-9.2	-8.8	-7.4
Excluding social security fund	-2.9	-1.1	-2.7	-8.1	-7.1	-7.3	-6.9	-5.3
Structural balance	-3.5	-2.2	-3.5	-7.4	-7.9	-8.2	-8.8	-7.9
Structural primary balance	-3.6	-2.2	-3.3	-6.9	-7.2	-7.2	-7.7	-6.7
Financing	3.7	2.1	4.1	10.4	9.4	10.1	9.9	8.6
Net issuance of debt securities	1.7	3.5	1.1	10.1	10.0	...	...	...
Other	2.0	-1.4	3.0	0.3	-0.6	...	...	...
Stock positions 3/								
Debt								
Gross 4/	186.0	183.0	191.8	210.2	215.2	229.8	234.5	240.0
Net	81.0	80.5	95.3	106.2	112.8	126.7	134.4	141.9
Net worth	30.5	33.2	21.7	15.8	7.5	...	...	...
Nonfinancial assets	111.5	113.7	117.0	122.0	120.2	...	...	...
Fixed assets (excluding land)	84.7	86.8	90.2	94.6	93.9	...	...	...
Land	26.6	26.5	26.5	27.0	26.0	...	...	...
Other	0.3	0.4	0.2	0.4	0.4	...	...	...
Net financial worth	-81.0	-80.5	-95.3	-106.2	-112.8	...	...	...
Financial assets	105.0	102.5	96.5	104.1	102.5	...	...	...
Currency and deposits	24.4	20.7	17.9	17.0	16.4	...	...	...
Loans	6.6	5.0	4.2	6.0	6.6	...	...	...
Securities other than shares	24.8	25.1	28.1	26.8	26.5	...	...	...
Shares and other equities	19.8	22.5	19.9	22.8	23.7	...	...	...
o/w shares	6.1	8.9	6.4	8.1	9.4	...	...	...
Financial derivatives	0.0	0.0	0.0	0.0	0.0	...	...	...
Other financial assets	29.3	29.2	26.4	31.4	29.2	...	...	...
Liabilities	186.0	183.0	191.8	210.2	215.2	...	...	...
Loans	37.2	34.8	34.3	36.0	34.4	...	...	...
Securities other than shares	136.4	137.3	146.3	161.5	170.1	...	...	...
Equities	4.7	4.4	4.6	4.9	4.7	...	...	...
Financial derivatives	0.0	0.0	0.0	0.0	0.0	...	...	...
Other liabilities	7.6	6.5	6.7	7.9	6.0	...	...	...
Memorandum items :								
Nominal GDP (FY, trillion yen)	509.1	513.0	489.5	473.9	479.5	469.9	482.1	488.4
Nominal GDP (CY, trillion yen)	506.7	513.0	501.2	471.1	481.8	468.4	479.4	486.3

Source: Cabinet office; Fund staff estimates and projections.

1/ No consumption tax increases are assumed.

2/ Including fines.

3/ Market value basis.

4/ Nonconsolidated basis.

Table 6. Japan: Financial Soundness Indicators for Deposit-taking Institutions: All Banks 1/

	2001 Mar.	2002 Mar.	2003 Mar	2004 Mar	2005 Mar	2006 Mar	2007 Mar	2008 Mar	2009 Mar	2010 Mar	2011 Mar	2011 Sep
	(In percent)											
Capital adequacy												
Total capital ratio 2/	10.5	10.5	10.9	11.2	11.6	11.5	12.6	12.0	12.6	13.6	14.1	…
NPL net of provisions/capital 2/	41	51	43	33	24	18	17	16	16	16	16	…
Asset quality												
Nonperforming loans (NPL) to total loans ratio 2/	6.7	8.7	7.8	6.3	4.6	3.5	3.1	2.9	2.8	2.9	2.9	…
Sectoral distribution of loans 3/												
Residents	…	93	94	95	94	94	93	93	94	95	94	94
Deposit-takers	…	6	7	7	7	7	8	7	7	8	8	8
Central bank	…	0	0	0	0	0	0	0	0	0	0	0
Other financial corporations	…	12	13	14	13	12	12	12	11	11	10	11
General government	…	4	4	5	6	6	6	6	7	7	8	8
Nonfinancial corporations	…	41	38	35	34	33	32	33	36	34	33	33
Other domestic sectors	…	31	32	33	35	35	34	34	34	35	35	34
Nonresidents	…	7	6	5	6	6	7	7	6	5	6	6
Earnings and profitability												
Return on assets	0.0	-0.6	-0.6	-0.1	0.2	0.5	0.4	0.2	-0.2	0.2	0.3	0.3
Return on equity	-0.8	-12.1	-13.9	-2.1	4.6	13.1	10.1	5.8	-5.2	5.0	6.3	6.7
Interest margin	1.8	1.8	1.9	1.9	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5
Net interest income/gross income	73	103	113	76	77	70	70	75	97	76	73	72
Noninterest expenses/gross income	59	80	90	61	62	56	59	64	84	65	65	65
Personnel cost/operating cost	50	49	49	49	46	46	44	43	45	48	48	…
Liquidity												
Liquid assets/total assets	13	14	18	19	20	18	16	16	16	20	21	22
Liquid assets/short-term liabilities	44	37	40	44	44	39	36	36	38	47	48	50
Loan/deposit	71	64	64	66	66	63	64	66	66	69	69	70
Other												
Capital/total assets 4/	4.6	4.2	4.3	4.2	4.4	4.3	4.6	4.2	3.6	4.4	4.7	4.7
Risk-weighted assets/total assets	44	40	39	38	38	37	37	35	29	32	33	…
Equity exposures/Capital 4/	105	100	77	83	75	79	75	65	56	49	42	38
Gross derivative asset/capital	35	36	44	34	29	28	28	59	95	61	53	60
Gross derivative liability/capital	33	34	41	30	26	28	28	53	88	56	49	54
Indicators for city and regional (tier 1 and 2) banks												
Total capital ratio	11.1	10.5	9.5	10.5	11.1	11.6	12.2	11.6	11.8	14.1	14.9	15.4
Tier 1 capital ratio	7.0	6.4	5.8	6.5	7.0	7.3	8.0	8.1	8.1	10.5	11.5	12.0
NPL net of provisions/capital 2/	33.6	43.2	35.3	26.6	17.9	13.4	12.0	11.4	12.0	11.7	11.5	11.6
Nonperforming loans to total loans ratio 2/	6.3	8.4	7.4	5.8	4	2.9	2.5	2.4	2.4	2.5	2.4	2.4
Return on assets	-0.1	-0.6	-0.6	-0.1	0.2	0.5	0.4	0.3	-0.2	0.2	0.3	0.3
Return on equity	-1.2	-13.9	-16.4	-3.0	4.9	15.1	11.4	6.7	-5.7	5.5	6.9	7.3
Equity exposures/capital 4/	120.9	117.3	93.4	98.5	88.2	89.1	84.6	73.5	63.5	54.9	48.0	42.7

Sources: Japanese authorities and IMF staff calculations.

1/ Including city banks, regional banks and shinkin banks (consolidated basis for banking groups).

2/ Aggregated based on individual banks' unconsolidated data.

3/ Include the figures of Credit Cooperatives and National Federation.

4/ Capital defined as net assets on the balance sheet.

Appendix I. Japan: Risk Assessment Matrix		
Main Sources of Risks	**Overall Level of Concern**	
	Likelihood (Over next one to three years)	**Impact and Policy Response**
1. Financial Turmoil in Europe, ↓	**High/Medium** An escalation of the European turmoil combined with an intensification of the flight to safety in financial markets.	**High** Exports would decline owing to weak global demand and appreciation, depressing equity prices and business and consumer confidence and lowering growth. A decline in equity prices would raise market risk for banks and non-life insurers. Dollar funding pressure could increase if the turmoil spreads to other regions. *Policy response*: Further easing of monetary policy would be advisable. Fiscal policy could also play a role through automatic stabilizers, although it is constrained by the limited fiscal space. It would not be advisable to delay legislation of the increase in the consumption tax.
2. A Hard Landing in China ↓	**Low** A sharper-than-expected slowing of the Chinese economy.	**High** Similar to the above.
3. Increase in Energy Costs and Electricity Shortages ↓	**Medium** Due to turmoil in the Middle East, disrupting oil supplies; or an unusually hot summer, increasing peak electricity demand; or nuclear plants remaining closed for an extended period.	**Medium** Higher energy imports and costs would reduce production, weaken the trade balance, hurt investor confidence and increase the chances of a JGB shock. Potential growth could be adversely affected by an extended closure of the nuclear plants. *Policy response*: Allow full pass-through of energy costs to electricity prices. Medium-term vulnerabilities could be reduced by encouraging alternative energy sources.
4. Sharp rise in JGB Yields ↓	**Low** Due to difficulties with implementing a credible fiscal consolidation plan; or continued slow economic growth and no progress on structural reforms; or aging reducing private saving and the current account surplus over the longer term.	**High** A sharp increase in government bond yields would pose a threat to fiscal sustainability. Given the large stock of debt, even a modest rise in the interest rate-growth differential from near historic lows (0 percent in 2012) could significantly worsen debt dynamics and undermine market confidence, reduce economic growth and worsen deflation. A more severe tail risk scenario with feedback from fiscal-financial sector linkages, could be more detrimental to financial stability, including due to the large JGB holdings by financial institutions, and potentially add to government liabilities. *Policy response:* Reinforce fiscal consolidation to regain market confidence. The BoJ could also step in to address temporary market volatility.
5. Protracted Growth Slowdown and Deflationary Pressures ↓	**Medium** Possibly due to prolonged global economic downturn and limited progress on structural reforms to boost growth.	**Medium** Real GDP growth well below the baseline outlook and continued deflation would worsen debt dynamics. *Policy response:* Speedy implementation of structural reforms, supported by aggressive monetary policy easing and fiscal consolidation in a growth friendly way.
6. Faster Recovery ↑	**Medium** A faster than expected recovery in Japanese consumer and business sentiment would lift domestic demand.	**Medium** The output gap could close earlier than projected and inflation could reach the BoJ's goal faster, improving public debt dynamics. *Policy response:* Front loading fiscal consolidation to capture the long-term benefits.

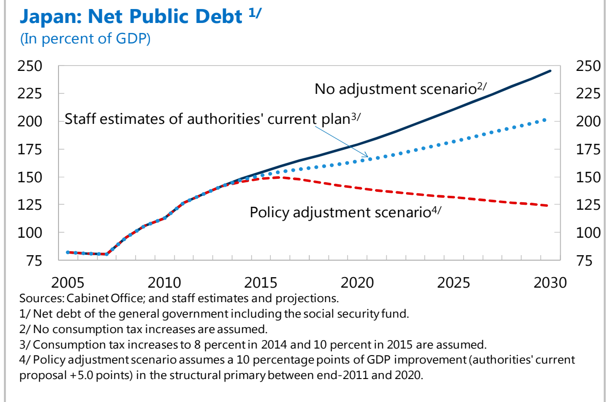
Appendix II. Japan: Public Sector Debt Sustainability Analysis

This appendix presents four scenarios: i) a no adjustment scenario; ii) the authorities' current plan (staff estiamte); iii) a policy adjustment scenario that would reduce the net-public-debt-to-GDP ratio to 125 percent (215 percent of GDP on a gross debt basis) by 2030; and iv) an upside scenario that could see net public debt reduced to 115 pecent of GDP (205 percent of GDP on a gross debt basis) by 2030.

Baseline Macroeconomic Assumptions. Both real GDP growth and the inflation rate are assumed to converge to 1 percent over the long term. As a result, nominal GDP growth is around 2 percent per year over the next 10 years. The nominal interest rate growth differential is assumed to converge to 1 percent (pre-crisis average since 2000) over the long run. Consequently, the average nominal interest rate is assumed to rise to 3 percent (compared to about 1 percent currently) over the long run.

No Adjustment Scenario. Without staff's recommended adjustment, net debt (defined here as general government net debt, including the social security fund) would rise to about 245 percent of GDP (335 percent of GDP on a gross debt basis) by 2030. The no-adjustment scenario assumes expiration of enacted stimulus (1 percent of GDP), a modest expenditure adjustment (1½ percent of GDP), and unchanged tax policy (no increase in the consumption tax) between end-2011 and 2020, which altogether improves the structural primary balance by 2½ percent of GDP over the next decade.

Authorities' Current Plan. The authorities plan to raise the consumption tax rate to 8 percent in 2014 and then 10 percent in 2015. This, together with the expenditure adjustments outlined above, is estimated to improve the structural primary balance by 5 percent of GDP over the next decade. However, the net public-debt-to-GDP ratio would fail to stabilize and rise to around 200 percent of GDP (290 percent of GDP on a gross debt basis) by 2030.



Japan: Net Public Debt 1/
(In percent of GDP)

Sources: Cabinet Office; and staff estimates and projections.
1/ Net debt of the general government including the social security fund.
2/ No consumption tax increases are assumed.
3/ Consumption tax increases to 8 percent in 2014 and 10 percent in 2015 are assumed.
4/ Policy adjustment scenario assumes a 10 percentage points of GDP improvement (authorities' current proposal +5.0 points) in the structural primary between end-2011 and 2020.

Policy Adjustment Scenario. Achieving debt sustainability will require that Japan stabilize and put its public-debt-to-GDP ratio firmly on a downward path. To achieve this goal, the policy adjustment scenario assumes a 10 percent of GDP improvement of the structural primary balance over the next decade (between end-2011 and 2020).[1] This comprises a withdrawal of the fiscal stimulus undertaken in response to the financial crisis (1 percent of GDP) plus additional policy measures of 9 percent of GDP, of which 5 percentage points are assumed to come from a gradual rise in the consumption tax starting in 2014[2] and 4 percentage points from other reforms (e.g., curbing the growth rate of nominal nonsocial security spending, limiting growth in social security spending).

Sensitivity Analysis. The debt sustainability results are sensitive to macroeconomic assumptions. In particular, a higher interest rate growth differential (than the baseline of 1 percent) would lead to a faster pace of debt accumulation (see Table A1). However, even with a higher differential of 2 percent, the net-public-debt-to-GDP ratio would still decline over the longer term in the Policy Adjustment scenario. Depending on the size of the interest rate growth differential, returning the net-public-debt-to-GDP ratio to its pre-crisis level by 2030 would require an adjustment of between 13–15½ percent of GDP.

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[1] Beyond 2020, the social security balance (defined as social security premiums minus benefits) is likely to worsen. To maintain the 10 percentage point improvement in 2021 and after, a further adjustment would be needed.

[2] More specifically, the adjustment scenario assumes a consumption tax increase by 10 percentage points cumulatively (3 percentage points in 2014, 2 percentage points in 2015, 3 percentage points in 2016, and 2 percentage points in 2017).

Stochastic simulations with shocks to growth, inflation, and interest rates also show that debt dynamics are sensitive to macroeconomics shocks (Figure A1). In case of severe macroeconomic shocks, the public-debt-to-GDP ratio would continue to rise even under the staff's policy adjustment scenario. However, implementation of staff's suggested policy adjustment would prevent debt from exploding in most cases (Figure 1, right).

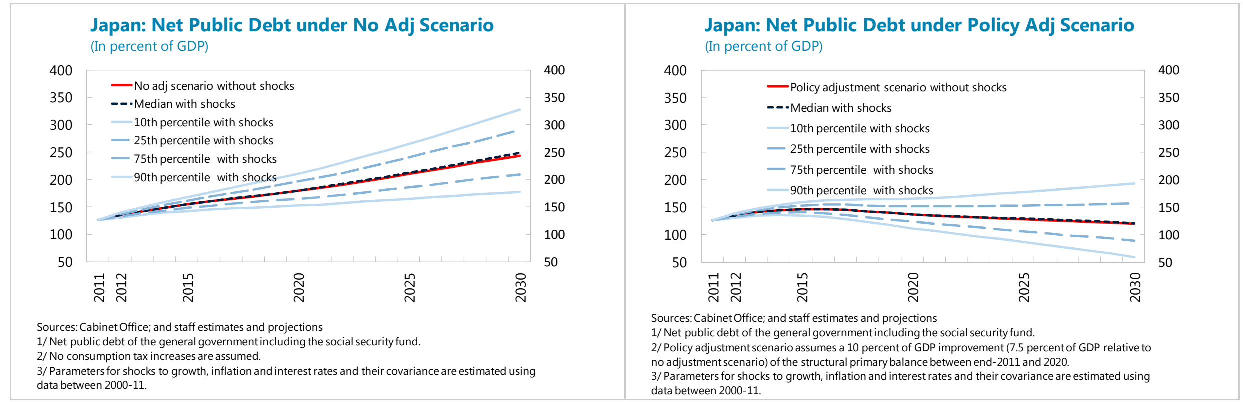
Table A1. Sensitivity Analysis of Debt Sustainability

(In percent of GDP)

	Nominal Interest Rate Growth Differential over the Long Term (in percent)	Structural Primary Balance Improvement Bet end-2011 and 2020	2010	2011	2012	2015	2020	2030
Net debt								
No adjustment scenario	1.0 (baseline)	2.5	113	127	134	154	179	245
	2.0	2.5	113	127	134	154	181	266
	4.0	2.5	113	127	134	154	187	318
Authorities' current plan	1.0 (baseline)	5.0	113	127	134	151	164	202
	2.0	5.0	113	127	134	151	166	220
	4.0	5.0	113	127	134	151	171	266
Policy adjustment scenario	1.0 (baseline)	10.0	113	127	134	148	140	124
	2.0	10.0	113	127	134	148	142	137
	4.0	10.0	113	127	134	148	146	172
Target pre-crisis (2007) level in 2030	1.0 (baseline)	13.3	113	127	133	145	132	80
	2.0	14.0	113	127	133	145	130	80
	4.0	15.5	113	127	133	143	127	80
Gross debt								
No adjustment scenario	1.0 (baseline)	2.5	215	230	234	249	269	335
	2.0	2.5	215	230	234	249	271	356
	4.0	2.5	215	230	234	249	277	408
Authorities' current plan	1.0 (baseline)	5.0	215	230	234	246	254	292
	2.0	5.0	215	230	234	246	256	310
	4.0	5.0	215	230	234	246	261	356
Policy adjustment scenario	1.0 (baseline)	10.0	215	230	234	243	230	214
	2.0	10.0	215	230	234	243	232	227
	4.0	10.0	215	230	234	243	236	262
Target pre-crisis (2007) level in 2030	1.0 (baseline)	13.3	215	230	233	240	222	170
	2.0	14.0	215	230	233	239	220	170
	4.0	15.5	215	230	233	238	217	170

Source: Cabinet Office, and staff estimates.

Figure A1. Stochastic Simulations with Shocks to Growth, Inflation and Interest Rates



Contingent Liabilities. The debt position looks worse once contingent liabilities are taken into account. Including government guaranteed bonds, broader general government net debt would be about 10 percentage points of GDP higher than otherwise. Including contingent liabilities associated with TEPCO (Tokyo Electric Power Company)[3] and regional banks would have a modest impact on debt figures (1-3 percentage points).

Table A2. Net Public Debt excluding/including Contingent Liabilities

(In percent of GDP)

	Nominal Interest Rate Growth Differential over the Long Term (in percent)	2010	2012	2015	2020	2030
No adjustment scenario						
Excluding contingent liabilities	1.0 (baseline)	113	134	154	179	245
Including government guaranteed bonds	1.0 (baseline)	122	144	164	188	254
Including government guaranteed bonds, and contingent liabilities related to TEPCO and regional banks 1/	1.0 (baseline)	123	146	166	191	257
	2.0	123	146	166	194	279
	4.0	123	146	166	199	333
Policy adjustment scenario						
Excluding contingent liabilities	1.0 (baseline)	113	134	148	140	124
Including government guaranteed bonds	1.0 (baseline)	122	144	158	149	133
Including government guaranteed bonds, and contingent liabilities related to TEPCO and regional banks 1/	1.0 (baseline)	123	146	160	152	136
	2.0	123	146	160	154	150
	4.0	123	146	160	159	189

Source: Cabinet Office, Ministry of Finance, staff estimates

1/ Contingent liabilities associated with TEPCO and regional banks are assumed at 1.9 percent of GDP (9 trillion yen) and 0.75 percent of GDP, respectively. The latter is based on the maximum capital injection estimated in the 2012 FSAP update.

Upside Scenario. An upside scenario with higher real growth and inflation highlights the benefits of higher nominal growth for debt dynamics.[4] Under the upside scenario, the net-public-debt-to-GDP ratio would decline to 115 percent of GDP (205 percent of GDP on a gross debt basis) by 2030—10 points lower than under the baseline macroeconomic assumptions. Higher nominal GDP growth would continue to reduce the debt ratio thanks to a higher denominator (nominal GDP) until the average nominal interest rate catches up, and help reduce spending (in percent of GDP).

This scenario does not imply that a higher inflation rate *alone* could reduce the debt-to-GDP ratio substantially. An increase in the inflation rate by 5 percentage points (relative to the baseline assumption) could reduce the debt ratio at most by around 15 percentage points over the long run. This is because the average nominal interest rate would catch up quickly within several years (the average debt maturity is about 6 years). An even higher inflation rate (e.g., 10 percentage points or higher) could be damaging to real economic activity.

[3] TEPCO's Fukushima Daiichi nuclear plant was hit by tsunami, which followed the March 2011 earthquake. TEPCO is liable for compensation for residents who lived in the neighborhood of the plant. Compensation and related costs paid directly by the government (¼ percent of GDP) are included in the scenario excluding contingent liabilities. Maximum support to TEPCO of 1.9 percent of GDP (9 trillion yen) including a capital injection through the Nuclear Damage Liability Facilitation Fund is counted as contingent liabilities.

[4] The upside scenario assumes higher long-term growth rates of real GDP (2 percent) and GDP deflator (1½ percent).

Appendix III. Assessment of Japan's External Sector

Staff's external sector evaluation concludes that the exchange rate is moderately overvalued from a medium-term perspective. This assessment is based on the following considerations:

- **Current account.** Japan's current account surplus declined to 2 percent of GDP in 2011 (1½ percent in cyclically-adjusted terms), because of a worsening of the trade balance as a result of external shocks (earthquake, Thai floods, and yen appreciation). The current account is likely to improve in the near term, but weaken over the medium term as private saving declines due to population aging, assuming limited fiscal consolidation as in staff's baseline forecast. The investment income account surplus (3 percent of GDP in 2011) is expected to remain sizable, supported by large net foreign assets (NFA) and higher returns on assets than on liabilities. The current account has averaged about 3 percent of GDP over the last decade and is expected to remain around 2 percent of GDP over the medium term without policy adjustment.

  The cyclically adjusted current account is estimated to be 1–2 percent of GDP weaker than the value implied by fundamentals and desirable policies. After taking into account desirable fiscal consolidation and structural policies, the current account consistent with fundamentals is estimated to be around 3 to 4 percent of GDP.

- **Real exchange rate.** The yen strengthened steadily throughout 2011, and has appreciated by about 27 percent in real terms since the Lehman collapse by February 2012, initially due to unwinding of the carry trades and later due to safe haven flows. A part of the appreciation in 2011 was reversed in early 2012, helped by greater stability in global markets and monetary easing. Although from end- of the reference period to end-May, Japan's real effective exchange rate has risen again by about 4 percent.

  On balance, the real exchange is estimated to be moderately overvalued (around 0 to 10 percent) relative to medium-term fundamentals. The real effective exchange rate in March 2012 is close to its 20-year average, using the relative consumer prices measure. However, using the relative unit labor cost measure, the REER is about 10–15 percent higher than its 20-year average. This result is consistent with the fact that Japan has been losing export market share since the mid-1990s, while its main competitors have kept or increased their share, which suggests some overvaluation. Nevertheless, comparing the exchange rate at present to the average of the past two decades may be misleading since it is highly likely that current fundamentals of the Japanese economy are not as strong as its average level over the last two decades due to population aging, significant increases in public debt and other factors.

- **Capital account flows and measures.** An important part of the capital flows in the mid-to late 2000s was the yen carry trade and it's unwinding after the Lehman shock. In addition, during 2010 and 2011 net capital inflows were fueled by safe haven effects into short-term government bills and money market instruments. Japan has an open capital account. Safe haven flows imply limited vulnerabilities to global financial instability.

- **FX intervention and reserves.** Reserves are much higher than other reserve asset issuers (about 20 percent of GDP) largely on legacy accumulation. The level of the yen is market determined. Isolated foreign exchange market interventions during safe haven flows appear to have reduced short-term exchange market volatility, while having ambiguous effects on the exchange rate level.

- **Foreign asset and liability position.** The net foreign asset position has risen from about 35 percent of GDP ten years ago to over 50 percent of GDP in 2011. Modest further accumulation is expected to result from current account surpluses over the next five years. But the ratio is likely to stabilize given a trend decline in the current account surplus because aging will reduce saving. Most assets and liabilities are portfolio equity and debt securities, rather than foreign direct investment. Vulnerabilities are limited as Japan's positive net position generates sizable investment income (that averaged about 3 percent of GDP in the past five years) and offset the goods trade deficit.

Appendix IV. Japan: Main Recommendations of the 2011 Article IV Consultation

Fund Recommendations	Policy Actions
Fiscal Policy:	
Timely passage of an additional and more sizeable supplementary budget, focused on revitalizing the earthquake affected regions.	The government passed supplementary budgets in 2011 to finance reconstruction spending, totaling 4 percent of GDP, about 2/3 of which is to be financed by temporary tax measures and 1/3 by expenditure reduction and non tax revenues.
Commitment to *fiscal reform* to bring down public debt over the medium term, including: ➢ a comprehensive *tax reform*, with a gradual increase in the consumption tax over several years, yielding 5 percent of GDP. ➢ *freezing central government contributions to the public pension system in nominal terms*, including by raising the pension retirement age, freezing nonsocial security spending in nominal terms, and introducing an income cap on social transfers. ➢ *introduce a taxpayer identification system* to allow for a more effective targeting of social transfers.	The government plans to double the consumption tax rate to 10 percent by 2015 and submitted a tax reform bill to the Diet at end March 2012. The bill was passed in the Lower House of the Diet in late June 2012. The government decided last year to cut the corporate tax rate by 5 percentage points to 35 percent in FY2012, though the special corporate tax for reconstruction is added on to the rate until FY2014. The government submitted a bill on the Social Security and Tax Number System to the diet last February.
Monetary Policy:	
F*urther monetary easing* to guard against deflation risks, through purchases of longer maturity JGBs (3 years and above). Additional purchases of private assets, including corporate bonds, commercial paper, ETFs, and securitized SME loans. Extend some of the BoJ's loan facilities.	The BoJ adopted a medium to long-run price stability goal of 1 percent for the time being and expanded its Asset Purchase Program by ¥ 30 trillion (6% GDP) since July 2011 to ¥70 trillion. The BoJ expanded private asset purchases and the duration of the targeted JGBs (from 1–2 years to 1–3 years). In addition, the BOJ extended its loan facility to "Strengthen the Foundations of Growth," and introduced a special facility covering earthquake related regions.
Financial Sector Policy:	
Withdraw emergency support measures for SMEs loans to limit moral hazard risks and encourage proper risk management towards SMEs, once the recovery is underway. *Encourage banks to monitor market risks* closely and continue to reduce their equity holding. *Promote more risk-based* (as opposed to collateral-based) lending and consolidation or restructuring of weak regional banks. *Privatize Japan Post*.	Measures on SME Financing facilitation were extended one year, and special credit guarantees remain in place. The FSA is focusing on strengthening risk management to boost bank profitability. The BoJ set up a new line of credit for asset-based lending to encourage such lending. The government intends to keep a one-third share in Japan Post Holdings while selling the remaining two-thirds as soon as possible.
Growth Strategy	
Boost employment through improving access to childcare by easing the approval process for new facilities, raising the mandatory retirement age, and introducing a new, more flexible labor contract that gradually increases employment protection.	The authorities plan to improve childcare services, including by increasing childcare centers and providing public financial support to small-scale childcare services. They also highlighted job training and matching efforts to raise employment of the young and elderly.
Raise productivity through regional integration by joining the Trans-Pacific Partnership Agreement (TPP).	The authorities announced their intention to enter into consultations toward participating in the TPP negotiations.
Promoting startups and restructuring SMEs by shortening the time limit on public credit guarantees and giving some preference for guarantees given to businesses in new growth areas, and establishing asset management companies to purchase distressed loans.	*SME restructuring*. The authorities were generally supportive of reforming the credit guarantee system. However, altering the system would be difficult given the need to promote reconstruction. They also supported establishing asset management companies to facilitate bank-led restructuring of earthquake related distressed loans, but would first need to evaluate the scale of the distressed loan problem.

INTERNATIONAL MONETARY FUND

JAPAN

STAFF REPORT FOR THE 2012 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

July 10, 2012

Prepared By | Asia and Pacific Department (In consultation with other departments)

CONTENTS

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ANNEX I. STATISTICAL ISSUES

1. Statistical Issues: Economic and financial data provided to the Fund are considered adequate for surveillance purposes. Japan subscribes to the Special Data Dissemination Standard (SDDS) and meets the SDDS specifications for the coverage, periodicity, and timeliness of data. The Japanese authorities hosted a data module mission for a Report on the Observance of Standards and Codes (data ROSC) in September 12–28, 2005. The Report on Observance of Standards and Codes - Data Module, Response by the Authorities, and Detailed Assessments Using the Data Quality Assessment Framework (DQAF) were published March 17, 2006 and are available at http://www.imf.org/external/pubs/ft/scr/2006/cr06115.pdf

Japan: Table of Common Indicators Required for Surveillance (as of June 20, 2012)

	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Frequency of Publication[6]	Memo Items:	
						Data Quality – Methodological soundness[7]	Data Quality – Accuracy and reliability[8]
Exchange Rates	June 2012	June 2012	D	D	D		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	6/10/2012	6/12/2012	Every 10 days	Every 10 days	Every 10 days		
Reserve/Base Money	May 2012	June 2012	M	M	M	LO, LO, LO, LO	O, O, O, O, O
Broad Money	May 2012	June 2012	M	M	M		
International Investment Position	2012 Q1	June 2012	Q	Q	Q		
Central Bank Balance Sheet	6/10/2012	6/12/2012	Every 10 days	Every 10 days	Every 10 days		
Consolidated Balance Sheet of the Banking System	Apr 2012	June 2012	M	M	M		
Interest Rates[2]	June 2012	June 2012	D	D	D		
Consumer Price Index	April 2012	May 2012	M	M	M	O, LO, O, O	O, O, LO, O, O
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	2010	Jan 2012	A	A	A	O, LNO, O, O	LO, O, O, O, LO
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	2010	Jan 2012	A	A	A		
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Mar 2012	May 2012	Q	Q	Q		
External Current Account Balance	Apr 2012	June 2012	M	M	M	O, O, LO, O	LO, O, O, O, O
Exports and Imports of Goods and Services	Apr 2012	June 2012	M	M	M		
GDP/GNP	2012 Q1	Jun 2012	Q	Q	Q	O, O, O, O,	LO, LO, O, O, LNO
Gross External Debt	Mar 2012	June 2012	Q	Q	Q		

[1] Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.
[2] Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).
[7] Reflects the assessment provided in the data ROSC or the Substantive Update (published on May 17, 2006, and based on the findings of the mission that took place during September 2005) **for** the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O); largely observed (LO); largely not observed (LNO); not observed (NO); and not available (NA).
[8] Same as footnote 7, except referring to international standards concerning (respectively) source data and its assessment, statistical techniques, assessment and validation of intermediate data and statistical outputs, and revision studies

II. FUND RELATIONS

(As of May 31, 2012)

I. Membership Status: Joined 8/13/1952; Article VIII

II. General Resources Account:

	SDR Million	% Quota
Quota	15,628.50	100.00
Fund holdings of currency	12,920.74	82.67
Reserve Tranche Position	2,708.15	17.33
Lending to the Fund		
New Arrangements to Borrow	7,454.01	

III. SDR Department:

	SDR Million	%Allocation
Net cumulative allocation	12,284.97	100.00
Holdings	12,903.57	105.04

IV. Outstanding Purchases and Loans:

None

V. Latest Financial Arrangements:

None

VI. Projected Obligations to Fund[1]:

(SDR Million; Based on Existing Use of Resources and Present Holdings of SDRs):

	Forthcoming				
	2012	2013	2014	2015	2016
Principal					
Charges/Interest		0.14	0.14	0.14	0.14
Total		0.14	0.14	0.14	0.14

[1/] When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

VII. Exchange Rate Arrangement:

Japan maintains a free floating exchange rate regime. Since the 2011 Article IV consultation, Japan has intervened on two occasions: first on August 4, 2011, by purchasing 4.5 trillion yen worth of U.S. dollars, and second between October 31 and November 4, 2011 by purchasing 9.1 trillion yen worth of U.S. dollars. The Ministry of Finance publishes foreign exchange intervention information on its website.The exchange system is free of restrictions on the making of payments and transfers for current international transactions, with the exceptions of restrictions imposed solely for the preservation of national or international security that have been notified to the Fund pursuant to Executive Board Decision No. 144-(52/51).

VIII. Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) Framework. Japan underwent an assessment of its AML/CFT framework against the AML/CFT standard by the Financial Action Task Force (FATF) and the Asia/Pacific Group (APG) in 2008. The mutual evaluation report highlights significant deficiencies, notably with respect to customer due diligence requirements, the criminalization of terrorist financing and the freezing of terrorist assets. Japan reported to the FATF in 2010, 2011 and 2012 that measures are being taken to address some of the deficiencies identified in its 2008 mutual evaluation report.

IX. Article IV Consultation:

The 2011 Article IV consultation discussions were held during May 30–June 8, 2011; the Executive Board discussed the Staff Report (IMF Country Report No. 11/181 and concluded the consultation on July 13, 2011. The concluding statement, staff report, staff supplement, selected issues paper, and PIN were all published.

INTERNATIONAL MONETARY FUND

Public Information Notice

EXTERNAL
RELATIONS
DEPARTMENT

Public Information Notice (PIN) No. 12/92
FOR IMMEDIATE RELEASE
August 1, 2012

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2012 Article IV Consultation with Japan

On July 25, 2012, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Japan.[1]

Background

The Japanese economy has shown remarkable resilience and adaptability in the aftermath of the March 2011 Great East Japan earthquake. In addition to the devastating human toll and destruction, businesses and households had to grapple with disruptions to supply-chains, reductions in electricity supply, and spillovers from severe floods in Thailand in late 2011, which impacted Japan's export sector.

Real GDP contracted by ¾ percent in 2011, because of the earthquake and Thai floods, but a recovery is now underway. Real GDP grew at a brisk pace of 4¾ percent (seasonally adjusted annual rate) in the first quarter boosted by reconstruction spending, a pickup in private consumption, and inventory rebuilding. Headline inflation was negative at -0.2 percent (year-on-year) in June and core inflation, excluding food and energy, was also negative at -0.6 percent (year-on year).

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

The trade balance moved into deficit in 2011 (1/3 percent of GDP), the first annual deficit recorded since 1980. Exports were impacted by the supply chain disruptions, weak global demand and an appreciation of the yen. At the same time, imports have risen, driven by reconstruction spending and higher energy costs following the closure of most nuclear power plants. The trade balance remained in deficit in early 2012, but the current account balance continued to record a surplus of about 1½–2 percent of GDP in 2011 and early 2012, because of sizable investment income earnings.

The recent turmoil in Europe has led to a flight to safety and impacted Japanese financial markets. Since mid-2011, equity prices have declined by about 15 percent and yields on 10-year Japanese Government Bonds (JGBs) have fallen to near historic lows of 70-80 basis points. Over the same period, the yen has appreciated by about 8 percent in nominal effective terms.

The Japanese economy is expected to expand by almost 2½ percent in 2012 helped by substantial public reconstruction spending of around 1½ percent of GDP and recovering consumer demand. Weak external demand is likely to weigh on exports and private investment. The recovery is forecast to slow in 2013 to 1½ percent, as reconstruction winds down. Over the medium-term, growth is expected to converge to around 1 percent as Japan's aging population slows potential growth.

Japan's fiscal deficit is set to increase to about 10 percent of GDP in 2012, while the structural primary deficit will rise slightly to 7½ percent of GDP. In an important step toward medium-term fiscal consolidation, the Lower House of the Diet approved a tax bill in late June that would increase the consumption tax to 8 percent in April 2014 and 10 percent in October 2015. The Upper House is now considering the bill. If implemented and added to already planned expenditure measures, the overall reduction in the structural fiscal deficit would be about 5 percent of GDP over the next decade.

The Bank of Japan's (BoJ) recent actions strengthened its policy framework and supported the recovery. The adoption in February of a medium to long-term price stability goal of 1 percent has helped clarify the objective of monetary policy. In addition, the BoJ expanded its Asset Purchase Program by ¥15 trillion this year in two steps and extended the maturity of JGB purchases from 1–2 years to 1–3 years. Together with earlier commitments this is a sizeable monetary expansion, totaling about 5 percent of GDP over the next year.

The Financial Sector Assessment Program (FSAP) update found that important steps have been taken to strengthen the financial system since the last assessment in 2003. In particular, financial regulation and supervision has been effective in encouraging the large banks and insurance companies to strengthen their capital positions and resilience to shocks. As a result, while the global financial crisis, earthquake and spillovers from the Thai floods led to significant economic disruptions, the impact on financial stability was limited.

Looking ahead, the FSAP stress tests suggest that in the near term banks and insurers would be resilient to severe economic distress and moderate market shocks. However, the key challenges financial institutions face in safeguarding financial stability are to raise profitability in a low growth environment, while managing risk associated with their JGB and equity holdings.

Executive Board Assessment

Executive Directors noted that, despite a worsening of the global outlook, the Japanese economy is recovering, helped by reconstruction activity and private consumption. Directors saw risks to the outlook tilted to the downside and primarily stemming from the possibility of a further escalation of the crisis in Europe and a sharper than expected slowing of the Chinese economy. Directors agreed that, beyond the short term, the main challenge is to reduce the public debt burden in an environment of low growth and address continued deflation and the impact of a rapidly aging population.

Directors stressed that reducing the public debt burden is a key policy priority and requires sustained fiscal consolidation over the next decade. They welcomed passage by the Lower House of the Diet of legislation to double the consumption tax rate to 10 percent by 2015, and agreed that targeted transfers to lower income groups could be considered to address the regressive nature of the tax. Directors also noted that additional fiscal consolidation measures, designed so as to limit any adverse impact on growth, would be needed beyond 2015 to put the public debt ratio firmly on a downward path. Of particular importance will be pension reform to contain social security spending while balancing inter generational equity.

Directors underscored the importance of speedy implementation of far reaching structural reforms to raise growth. Given the rapidly aging population, policies aimed at increasing employment of women and older workers and facilitating immigration could have a large payoff. Directors also saw scope for productivity improvements by easing regulation of the agriculture and services sectors. Participation in additional free trade agreements would also help in this regard.

Directors commended the Bank of Japan for the conduct of monetary policy during the past year and the adoption of a 1 percent inflation goal. They generally supported further monetary easing as part of a comprehensive package of policies to defeat deflation, particularly if the growth outlook worsens, while acknowledging that the effectiveness of further easing is limited in the very low interest rate environment. Directors also underscored the importance of improved communication of policy intentions.

Directors took note of staff’s view that Japan’s external position is moderately weaker than that consistent with medium term fundamentals and desirable policies. They considered that Japan should continue to allow the exchange rate to be market determined, although intervention could be used to counter volatile or disorderly market conditions.

Directors agreed with the findings of the recent Financial Sector Stability Assessment Update. They noted that the financial system is stable and resilient to severe economic stress and moderate market shocks. However, banks' low profitability and large holdings of Japanese government securities raise some concerns and should be monitored closely.

To safeguard financial sector stability, Directors saw scope to strengthen further systemic risk monitoring and to improve the prudential framework, including by tightening large exposure limits on bank lending, raising capital requirements for domestic oriented banks, and basing the assessment of insurance companies' solvency on a more refined economic valuation. Directors also saw room to strengthen the crisis resolution framework for systemically important nonbank financial institutions. Directors encouraged reforms to promote more market based credit intermediation, including through a reduced role of government, to enhance the role of the financial sector in supporting growth.

Public Information Notices (PINs) form part of the IMF's efforts to promote transparency of the IMF's views and analysis of economic developments and policies. With the consent of the country (or countries) concerned, PINs are issued after Executive Board discussions of Article IV consultations with member countries, of its surveillance of developments at the regional level, of post-program monitoring, and of ex post assessments of member countries with longer-term program engagements. PINs are also issued after Executive Board discussions of general policy matters, unless otherwise decided by the Executive Board in a particular case. The staff report (use the free Adobe Acrobat Reader to view this pdf file) for the 2012 Article IV Consultation with Japan is also available.

Japan: Selected Economic Indicators, 2007–13

Nominal GDP: US$ 5,867 billion (2011)
Population: 127.8 million (2011)
GDP per capita: US$ 45,900 (2011)
Quota: SDR 15,628.5 million

						Proj.	
	2007	2008	2009	2010	2011	2012	2013
Growth (percent change) 1/							
Real GDP	2.2	-1.0	-5.5	4.4	-0.7	2.4	1.5
Domestic demand	1.1	-1.3	-4.0	2.7	0.1	3.0	1.5
Private consumption	0.9	-0.9	-0.7	2.6	0.1	2.7	1.7
Residential investment	-9.8	-6.6	-16.6	-4.2	5.4	0.7	1.5
Business investment	4.9	-2.6	-14.3	0.5	1.1	3.2	4.8
Government consumption	1.1	-0.1	2.3	2.1	1.9	2.0	-0.5
Public investment	-5.9	-7.4	7.0	0.4	-3.6	6.3	-12.5
Stockbuilding 2/	0.3	0.2	-1.6	0.8	-0.5	0.2	0.5
Net exports 2/	1.1	0.2	-1.5	1.7	-0.8	-0.5	0.0
Exports of goods and services	8.7	1.4	-24.2	24.2	-0.1	3.1	5.0
Imports of goods and services	2.3	0.3	-15.7	11.1	5.9	7.4	5.7
Inflation (annual average)							
CPI	0.1	1.4	-1.3	-0.7	-0.3	0.2	0.0
GDP deflator	-0.9	-1.3	-0.5	-2.1	-2.1	-0.1	-0.1
Unemployment rate (annual average)	3.8	4.0	5.1	5.1	4.6	4.5	4.4
Government (percent of GDP)							
General government							
Revenue	31.2	31.6	29.6	29.6	30.6	30.9	31.4
Expenditure	33.3	35.7	40.0	39.0	40.7	40.9	39.9
Balance	-2.1	-4.1	-10.4	-9.4	-10.1	-9.9	-8.6
Primary Balance	-2.1	-3.8	-9.9	-8.7	-9.2	-8.8	-7.4
Public Debt, gross	183.0	191.8	210.2	215.3	229.9	234.5	240.0
Money and credit (percent change, end-period)							
Base money	0.4	1.8	5.2	7.0	13.5	...	...
M2 (period average)	2.1	1.8	3.1	2.3	3.2	...	...
Domestic credit	-2.3	1.6	0.4	1.3	0.8	...	...
Bank lending	0.7	4.6	-0.9	-1.8	0.7	...	...
Interest rate							
Overnight call rate, uncollateralized (end-period)	0.46	0.10	0.09	0.1	0.1	...	...
Three-month CD rate (annual average)	0.51	0.51	0.33	0.3	0.3	...	...
Official discount rate (end-period)	0.75	0.30	0.30	0.3	0.3	...	...
Balance of payments (in billions of US$)							
Current account balance	212.2	159.8	146.6	204.0	119.2	130.3	167.0
Percent of GDP	4.9	3.3	2.9	3.7	2.0	2.2	2.7
Trade balance	105.1	38.4	43.4	91.0	-20.5	-10.2	35.1
Percent of GDP	2.4	0.8	0.9	1.7	-0.3	-0.2	0.6
Exports of goods, f.o.b.	678.4	746.5	545.3	730.1	787.2	807.4	830.0
Imports of goods, f.o.b.	573.3	708.0	501.9	639.1	807.7	817.6	795.0
Oil imports (trade basis)	130.1	190.6	99.9	134.3	185.0	227.8	233.7
FDI, net (percent of GDP)	-1.2	-2.2	-1.2	-1.1	-2.0	-1.3	-1.3
Terms of trade (percent change)	-2.1	-9.6	19.5	-3.3	-7.9	3.9	7.0
Change in reserves	36.5	30.8	27.3	44.3	177.0	...	...
Total reserves minus gold (in billions of US$)	952.8	1009.4	1022.2	1096.2	1258.2	...	...
Exchange rates (annual average)							
Yen/dollar rate	117.8	103.4	93.6	87.8	79.8	...	...
Yen/euro rate	161.4	152.1	130.3	116.5	111.0	...	...
Real effective exchange rate 3/	83.6	93.7	110.5	118.2	126.2	...	...
Real effective exchange rate (CPI-based)	83.2	90.1	101.5	102.7	104.4	...	...

Sources: Global Insight, Nomura database; IMF, Competitiveness Indicators System; and IMF staff estimates and projections as of Feb 21, 2012.

1/ Annual growth rates and contributions are calculated from seasonally adjusted data.
2/ Contribution to GDP growth.
3/ Based on normalized unit labor costs; 2000=100.