INTERNATIONAL MONETARY FUND

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Japan

2011 ARTICLE IV CONSULTATION

2011 Article IV Consultation—Staff Report; Staff Supplement; Public Information Notice on the Executive Board Discussion

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 2011 Article IV consultation with Japan, the following documents have been released and are included in this package:

- The staff report for the 2011 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on June 8, 2011, 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 June 28, 2011. 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.
- A staff supplement of July 7, 2011 updating information on recent developments.
- A Public Information Notice (PIN) summarizing the views of the Executive Board as expressed during its July 13, 2011 discussion of the staff report that concluded the Article IV consultation.

The document listed below has been or will be separately released.

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 2011 ARTICLE IV CONSULTATION

June 28, 2011

KEY ISSUES

Growth after the earthquake. After a sharp contraction in production and private demand, supply constraints are easing and activity has begun to recover. GDP is forecast to decline by 0.7 percent in 2011 before rising by 2.9 percent in 2012. The outlook, however, remains uncertain depending on how quickly supply bottlenecks ease and sentiment recovers.

Reconstruction funding and fiscal strategy. The immediate priority of fiscal policy is to revive growth, but to limit bond issuance and strengthen commitment to fiscal reform, reconstruction spending should be financed by new tax measures. While other tax measures could also be considered, staff recommends a moderate increase in the consumption tax, from 5 percent to 7–8 percent, in 2012 when a cyclical recovery is underway. Long-term reforms to bring down the public debt ratio require a 1 percent of GDP annual reduction in the structural primary deficit over ten years.

Ending deflation and safeguarding financial stability. To ward off deflation risks and support the recovery, the Bank of Japan (BoJ) could increase purchases of longer-dated public securities and expand its asset purchase program for private assets. The earthquake poses little immediate risk to financial stability, but policies should protect against risks of a prolonged economic slowdown and higher market volatility given banks' significant holdings of government bonds and equities.

Implementing the growth strategy. The economic slowdown provides an opportunity to accelerate growth-enhancing structural reforms. The priorities are to boost employment by raising labor participation among the elderly, young, and women, pursue trade liberalization, and promote SME restructuring.

Spillovers. Recent production disruptions have highlighted Japan's role as a key supplier to regional production networks. The main potential international spillover, however, is through the public sector. Fiscal consolidation would have long-term benefits for Japan's partners by reducing tail risks from a disruption in the Japanese government bond market and freeing up domestic savings to help lower global interest rates.

Approved By
Mahmood Pradhan and Lorenzo Giorgianni

Discussions took place in Tokyo from May 30–June 8, 2011. The staff team comprised Messrs. Pradhan (head), Kang, Danninger, Lam, and Tokuoka; Ms. Berkmen (all APD), and Mr. Steinberg (OAP). A spillover team consisting of Messrs. Bayoumi, Muhleisen, and Teja (all SPR) joined the mission during the second week and Messrs. Lipsky and Singh joined the final policy discussions and met with Finance Minister Noda, BoJ Governor Shirakawa, and Economic and Fiscal Policy Minister Yosano. Messrs. Furusawa and Shimoda (OED) attended the senior meetings. The mission was assisted by OAP staff.

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THE ROAD TO RECOVERY

1. The Great East Japan earthquake and tsunami on March 11, 2011 brought Japan's nascent recovery to a halt. It destroyed large parts of Japan's northeastern coastal areas and damaged key infrastructure. The destruction far exceeded those of the 1995 Great Hanshin earthquake near the city of Kobe and is likely to influence economic developments for some time.

2. The authorities have responded swiftly to stabilize markets and activity has begun to recover. Recent data on household spending and production suggest that activity is picking up, and supply chains are being restored faster than expected. Nevertheless, the outlook remains uncertain, due to lingering concerns about power supply and weak sentiment. In addition, greater spending will push up Japan's already high level of public debt, while subdued demand and a delayed recovery could intensify deflation pressures. Uncertainty over PM Kan's future and a potential realignment of political parties before the Lower House general elections scheduled before 2013 could delay needed policies.

3. Ensuring a robust recovery will require a significant policy effort. The government is now considering additional budgets for reconstruction and a blueprint for longer-term tax and social security reforms. These measures will have important implications for Japan's growth and fiscal outlook. Against this backdrop, this year's Article IV consultation focused on policies to revive growth and reforms to bolster confidence in public finances.

THE ECONOMIC IMPACT OF THE EARTHQUAKE

A. Signs of a Recovery are Emerging

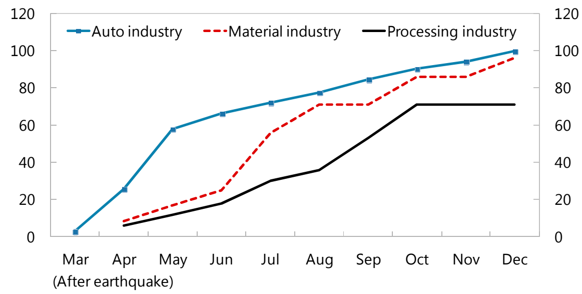
4. Although the direct damage was limited to coastal areas, the impact of the earthquake was felt nationwide. In the first quarter of 2011, GDP contracted by 3.5 percent (q/q, s.a.a.r.) led by sharp declines in private consumption and stockbuilding. Four factors explain the earthquake's severe initial impact:

- extensive damage to private capital and public infrastructure (estimated at 3–5 percent of GDP),
- electricity shortages in the Kanto region including Tokyo, which accounts for 40 percent of GDP,
- widespread supply chain disruptions affecting production nationwide, especially in automobiles and electronics (about 35 percent of exports), and a sharp decline in sentiment following the earthquake, which weighed heavily on domestic demand

5. Supply has begun to recover faster than expected, but private demand remains sluggish (Figure 1)**.** After declining by 15 percent in March, industrial production grew modestly in April, and leading indicators point to a solid rebound in the coming months. Confidence is growing that summer demand for electricity will be met due to aggressive energy conservation efforts and added capacity. Some demand-side indicators, such as retail sales and capital goods shipment have also started to recover, but household and corporate sentiment still remains weak.

6. Consumer prices were largely unaffected by the earthquake. Core inflation excluding fresh food has held steady in the first two months after the earthquake as higher prices for food and clothing were offset by declines in prices of durable goods items.

Restoration of Capacity in Different Sectors
(Percent of firms with restored capacity)



Source: METI and IHS Automotive.
Note: The chart is from April and restoration plans have been moved up by 1-2 months, but no new comprehensive survey data are available.

7. Financial and exchange markets stabilized quickly after the earthquake (Figure 3)**.**

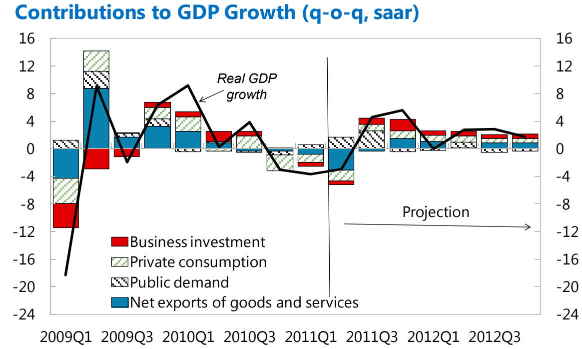
- *Equity markets*. Equity markets fell by over 15 percent in the first weeks after the earthquake, but recouped roughly one third of their losses by mid-June as the extent of damage became clearer.
- *Government debt and money markets.* Massive liquidity injections by the BoJ after the disaster and a flight to safety have flattened the JGB yield curve, with the 10-year rate moving in a narrow range between 1.1 and 1.2 percent. Money markets continue to function normally with the spread between 3-month LIBOR and overnight indexed swaps (OIS) relatively stable at around 0.12 percent.
- *Corporate bond and lending*. Corporate bond issuance fell sharply after the earthquake, while spreads on lower-rated corporate bonds picked up modestly. Bank lending continues to decline but at a slower pace, reflecting increased demand for working capital.
- *Exchange rate*. After concerted intervention in coordination with the G-7 in mid-March, the yen / US$ rate has traded in a band of 80–84. For the year-to-date, the yen has strengthened against the U.S. dollar but weakened against the euro. In real effective terms, the yen has depreciated by 5 percent since the beginning of the year but remains about 15 percent stronger than during pre-Lehman lows.

B. Outlook and Risks

8. The economy continues to face headwinds from the earthquake's impact but is set to recover in the second half of this calendar year. Supply disruptions, electricity shortfalls, and weak demand are holding back economic activity, but starting over the summer, the economy is expected to recover as supply conditions normalize and reconstruction spending picks up. The recovery will continue in 2012 as the resumption of exports lifts domestic demand and reconstruction spending continues. Specifically, staff forecasts:

- GDP growth to slow to -0.7 percent in 2011 before rising to 2.9 percent in 2012.
- Headline inflation to be around zero percent in 2011 and 2012, while underlying inflation—excluding food and energy—is projected to remain negative as a result of the still wide output gap.[1]

Contributions to GDP Growth (q-o-q, saar)



Source: Cabinet Office of Japan and IMF staff estimates.

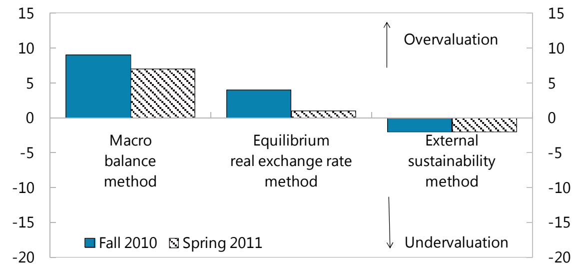
1 Relative to the large decline in GDP, the output gap is projected to widen modestly (by about ½ percentage point to 5.5 percent in 2011) due to the simultaneous decline of supply and demand. Given the temporary nature of the shock and a very flat Phillips-curve, the impact on underlying inflation is estimated to be about 0.1 percentage points in 2011.

9. The uncertainty surrounding the outlook is unusually large. Risks to the outlook are biased downwards as delays in resolving supply disruptions and rebuilding electricity capacity could hold back private consumption and investment. In particular, the impact on electricity supply from nuclear power represents a significant downside risk (Box 1). External risks stem primarily from a slowdown in other advanced economies. If these risks materialize, larger upfront fiscal spending and monetary easing combined with a more ambitious medium-term fiscal consolidation strategy will be needed. On the upside, a faster easing of supply constraints could accelerate the recovery in exports and investment.

10. The impact of the earthquake on global supply chains is expected to be short lived (See Box 2 of Spillover Report). Reflecting Japan's large global share in many high-tech inputs, overseas production slowed in several industries, especially in automobiles and electronics. However, with industrial production showing signs of turning around, exports will likely pick up soon, limiting the risk of a sustained disruption to regional supply chains.

11. The yen appears fairly valued based on medium-term fundamentals. In the immediate aftermath of the earthquake, the yen appreciated sharply on speculation about sizeable repatriation flows by insurance companies, corporations, and households, but these did not materialize. By mid-June, the yen returned to levels close to its 20 year average in real effective terms. As a result of supply disruptions, the trade balance turned negative in May, but the impact on the current account is expected to be temporary. Staff projects a current account surplus above 2 percent of GDP in the medium term, supported by investment income from Japan's large net international investment position. Based on IMF methodologies using a macroeconomic balance approach, an equilibrium real exchange rate assessment, and an external sustainability assessment, the yen appears to be broadly in line with medium-term fundamentals.

Exchange Rate Assessment
(In percent)



Note: The reference periods for Fall 2010 and Spring 2011 results are Aug 4 - Sep 1, 2010, and Feb 8 - March 8, 2011, respectively.
Source: CGER assessments.

The Authorities' Views

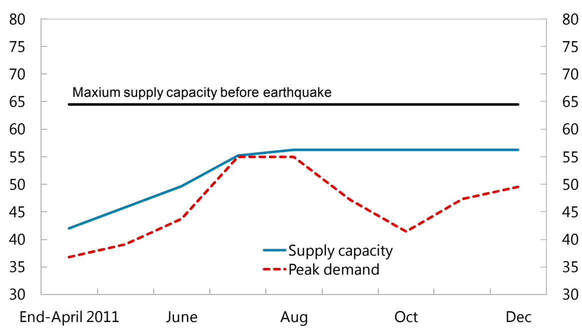
12. Officials expect the economy to recover sharply during the second half of the year in line with staff's projections. After adjusting for the weak Q1 GDP outturn and historical revisions, the BoJ and Cabinet Office's growth forecasts on a calendar year basis are roughly similar to staff's projections. The authorities noted that supply disruptions had started to ease earlier than expected and the electricity situation had improved. Fiscal spending would initially drive the recovery followed by a strengthening of confidence and demand.

13. The authorities also viewed the risks to the outlook as mainly on the downside. Although supply chains are now recovering, the outlook is still subject to considerable uncertainty about how quickly consumer sentiment will rebound and electricity shortages addressed, especially if more nuclear plants are shut down. Externally, the economy faces risks from a weak U.S. recovery, European sovereign problems, and inflationary pressures in emerging market economies.

Box 1. Implications of the Earthquake for Japan's Electricity Supply

The earthquake substantially reduced electricity capacity in the east of Japan. The damage to the Fukushima nuclear plants and other thermal plants cut Tokyo Electric Power Company (TEPCO)'s supply capacity to the Kanto and greater Tokyo region by nearly 30 percent to below 35 million KW, forcing TEPCO to implement rolling blackouts to meet normal demand of around 35–40 million KW in March. TEPCO's efforts to restore capacity and government measures to conserve electricity enabled the company to end rolling blackouts by early April.

Electricity Supply and Demand in Kanto Region
(In millions of kilowatt)

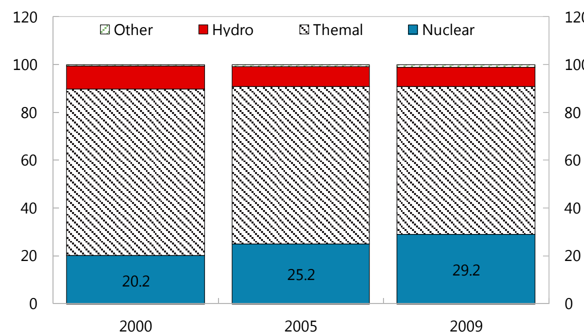


Source: TEPCO; and staff estimates and projections.

TEPCO's electricity supply is expected to be sufficient to meet peak demand during the summer. As a result of reactivating and installing thermal plants, TEPCO projects its supply capacity to rise to around 55 million KW by July, which, based on past usage, should be sufficient to meet peak demand this summer. But to avoid possible blackouts, the government has called for a 15 percent reduction in electricity usage during summer peak hours, which corporations plan to meet by shifting around production schedules, working over the weekends, and running their own power generators. After the summer, electricity demand is projected to decline as cooler weather reduces the use of air conditioning**.**

Beyond the summer, however, the outlook for electricity supply is clouded by the uncertainty over restarting inspected nuclear plants. Under Japanese regulations, nuclear reactors must be shut down for inspection every 13 months. Currently, 35 out of 54 reactors have already been shut down for inspection, with the remaining reactors scheduled to be taken off line for inspection by spring of next year. Restarting will depend on local government approval, which has become more challenging due to rising public concerns over nuclear safety. With nuclear energy providing close to 30 percent of the nation's electricity, shutting down all the nuclear reactors could reduce Japan's electricity supply significantly and constrain economic activity.[1]

Composition of Electricity Generation
(In percent)



Source: Agency for Natural Resources and Energy (Japanese Government).

Japan could substitute nuclear energy with other sources, but this will push up energy costs substantially. Japan is already turning more to alternative energy sources, such as thermal and renewable energy. However, this shift may take time, and by some estimates, could raise electricity costs by around 10 percent (or 0.3 percent of GDP). During the transition, higher energy costs and increased uncertainty over the power situation could undermine the recovery by constraining investment and possibly accelerating a shift of Japanese production overseas.[2] To mitigate such risks, a clear policy on securing a stable and affordable energy supply would be needed.

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[1] The elasticity of GDP with respect to electricity supply is estimated to be around 1 over the past 10 years, suggesting that a severe electricity shortage would represent a significant downside risk to the growth outlook.

[2] Increased reliance on thermal energy would also create a conflict with Japan's commitment in the Kyoto Protocol to cut emission of greenhouse gases.

14. Compared to staff's projections, the BoJ forecasts a higher rate of inflation due to more buoyant commodity prices. The BoJ's forecast for inflation in FY2011 and FY2012 are around 0.6–0.7 percent, higher than staff's projection of zero inflation, largely on account of commodity prices which the BoJ expects to rise 6–7 percent annually over the next two years. This partly reflects the BoJ's view that strong emerging market demand and the "financialization" of commodities will continue to push up prices.[2] The BoJ saw little risk that the earthquake would significantly weaken prices as medium-term inflation expectations remain well anchored at around 1 percent.

15. The international spillovers of the earthquake highlighted Japan's important role for global supply networks. The authorities stressed that Japan maintained important trade links with the region, not only as an exporter to the supply chain but also as a consumer of final demand.

16. The authorities emphasized that exchange rates should be determined by markets, reflecting underlying economic fundamentals. They also expressed concern about the yen's volatility and disorderly movements especially during times of financial distress and saw the G-7 coordinated intervention as successful in addressing excessive volatility after the quake.

[2] See Kawamoto et. al., "What Has Caused the Surge in Global Commodity Prices and Strengthened Cross-Market Linkage?" BoJ WP No.11-E-3 May 2011.

POLICY DISCUSSIONS

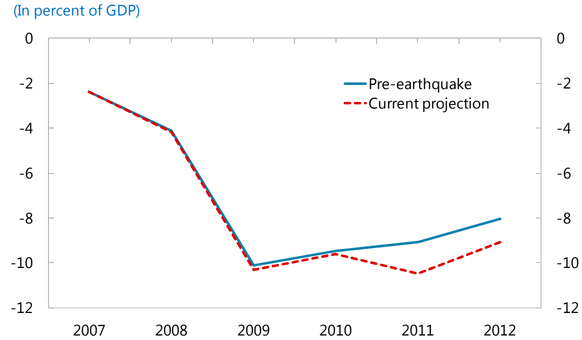
Fiscal policy will need to chart a path between increased spending to facilitate a swift recovery and longer-term reforms to bring down the high level of public debt. The Bank of Japan's (BoJ) accommodative monetary stance has helped stabilize financial markets, but more can be done to guard against deflation risks and support the recovery. Financial policies should strengthen the resilience of the system to a slowdown and market risk, while timely implementation of the government's growth strategy would help sustain fiscal adjustment and support the recovery.

A. Financing Reconstruction and Charting a Path for Fiscal Reforms

Background

17. The fiscal costs of the earthquake could range between 2–4 percent of GDP spread over several years (Figure 2). Reconstruction is projected to increase the fiscal deficit in 2011 to 10½ percent of GDP and the net debt-to-GDP ratio to above 130 percent of GDP. In May, the government passed its first supplementary budget (0.8 percent of GDP) to repair damaged infrastructure, financed mainly from contingency reserves, reprioritized spending, and a temporary reduction in the government's contributions to the public pension fund. Additional supplementary budgets focused on revitalizing the region are expected this summer.

Japan: Overall Fiscal Balance
(In percent of GDP)



Source: IMF WEO database; staff projections.

18. Among options to finance reconstruction, the near-term scope for further expenditure cuts is limited. Japan's non-social security spending (excluding interest payment) has been well contained and at about 16 percent of GDP, is the lowest among the advanced economies. Social security benefits, on the other hand, have been rising steadily due to population aging.

19. Japan, however, has ample room to raise additional tax revenue. At about 17 percent of GDP, overall tax revenue is one of the lowest among OECD economies. Compared to other countries, Japan's consumption tax rate at 5 percent is very low (Box 2) and the personal income tax allows for ample deductions and low marginal rates for middle-income households. By contrast, the corporate income tax rate of 40 percent is relatively high.

20. In the absence of new taxes, JGB issuance could rise by 2 percent of GDP or more in 2011–12. While the size of the additional bond issuance is manageable, the capacity of the bond market to absorb further debt is projected to decline with population aging. In addition, the JGB market faces several risks from changes in the institutional investor base, external developments, and near-term reconstruction activity, which could put upward pressure on interest rates (Box 3).

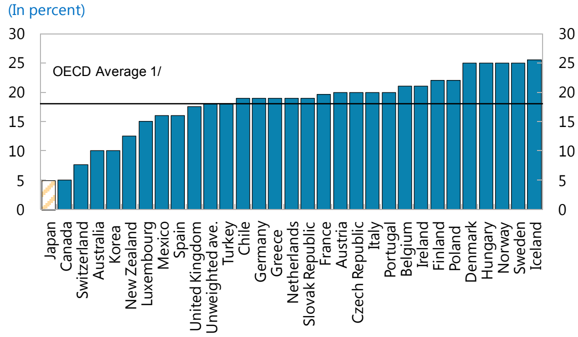
Box 2. The Case for Raising the Consumption Tax in Japan[1]

Raising the consumption tax (VAT) rate to bring down public debt is appealing for a number of reasons:

- **Japan has one of the lowest VAT rates in the world.** The VAT in Japan was introduced in 1989 at the rate of 3 percent, and, despite rising to 5 percent in 1997, is still the lowest among advanced economies that have a VAT[2] (see chart). The revenue yield from VAT in Japan is correspondingly low, at approximately 2½ percent of GDP.

OECD Economies: Standard VAT Rate, 2010

(In percent)



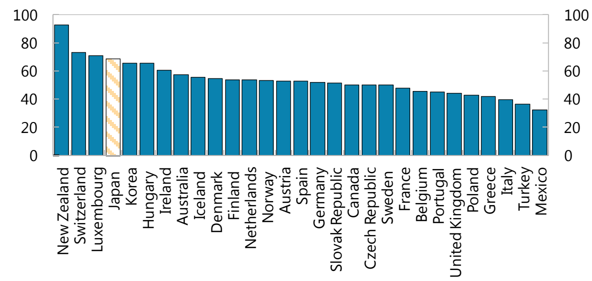
Source: OECD

1/ Average of OECD countries which have adopted VAT.

- **Japan's VAT is relatively efficient and easy to administer.** It is applied on a broad basis and has a uniform rate. The C-efficiency ratio (VAT revenue divided by total consumption times the standard rate—a crude indicator of how far a VAT is from the benchmark of a single rate levied on all consumption) is nearly 70 percent—one of the highest among OECD countries (see chart), indicating that Japan's VAT is broad-based with relatively strong compliance.

OECD Economies: C-Efficiency Ratio 1/

(In percent)



Sources: IMF, WEO database; Revenue Statistics Database (OECD); National Account Database (OECD); International Bureau of Fiscal Documentation (IBFD); Corporate Taxes (2007), Worldwide Summaries

1/ VAT revenue divided by total consumption times the standard rate.

- **VAT is a stable and robust source of revenue in an aging society.** Aging implies dissaving by households (spending exceeding income), making the tax base for VAT more robust than the base for labor income, which grows more slowly as the population ages. Indeed, in Japan, labor income in nominal terms has grown by about ½ percentage points per year slower on average over the past 10 years than private consumption. There is also international evidence that the VAT is less damaging for economic growth than personal or corporate income taxes (Arnold, 2008)[3]. The less distortionary feature of the VAT is particularly relevant for aging societies such as Japan's, where there is a relative shortage of labor.

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[1] See Keen, Pradhan, Kang, and de Mooij, 2011: "Raising the Consumption Tax in Japan: Why, When , How?" IMF Staff Discussion Note No. 2011/13.

[2] The United States is the only member of the OECD that does not have a VAT.

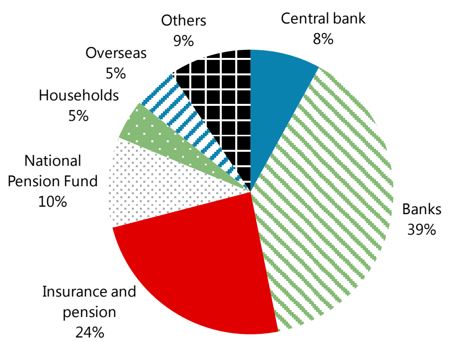
[3] Arnold, J., 2008, Do Tax Structures Affect Aggregate Economic Growth? Empirical Evidence from a Panel of OECD Countries, OECD Working Paper No. 643.

Box 3. Assessing Risks to the Japanese Government Bond Market[1]

Population aging and a recovery in risk appetite are likely to diminish the bond market's capacity to absorb new debt over the medium term. Japan's large pool of domestic savings, a stable investor base, low share of foreign ownership of domestic debt, and current account surplus position have helped maintain stability in the JGB market. Whilst these factors are expected to persist for some time, the market's capacity to absorb new debt will diminish as population aging reduces saving and risk appetite increases. Without a significant policy adjustment, the stock of outstanding JGBs could exceed the level of household financial assets (currently 300 percent of GDP) within 5 to 10 years, suggesting that the government may need to turn more to other sources of financing, such as the corporate sector or foreign investors.[2]

Japan: Shares of JGB Holdings at end-2010

(In percent)



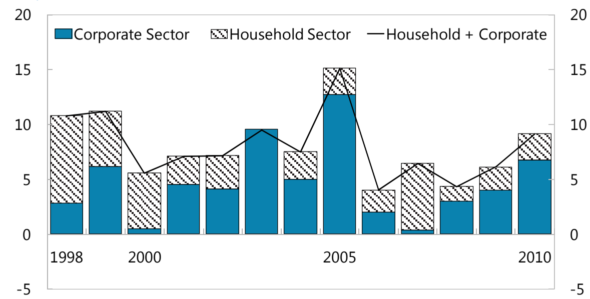
Source: Bank of Japan Flow of Funds statistics

The JGB market also faces risks that could contribute to a rise in yields, even though the risks of a near-term disruption are low:

- *Decline in supply of funds.* Corporate financial surpluses, which amounted to 6 percent of GDP in 2010, have been an important source of JGB funding through the banking system. These surpluses could decline as corporates undertake investment for reconstruction or expansion overseas. Demand for JGBs from insurers and pension funds could also weaken if insurers come under pressure to sell JGBs to settle claims, while pension funds could accelerate payouts. One of the largest institutional investors, the National Pension Fund, has already begun reducing assets to make payouts to retirees.

Japan: Financial Surpluses

(In percent of GDP)



Source: Bank of Japan Flow of Funds Statistics.

- *Global spillovers.* JGB yields are sensitive to global risk factors, including in the U.S. Treasury market where the estimated correlation of yields is as high as 0.6. Although the foreign ownership share of JGBs is only 5 percent, foreign participation in the JGB futures market is about ⅓ of total trading, highlighting a possible channel for overseas spillover. Late last year, the sudden rise in JGB yields mirrored those in U.S. Treasuries as Japanese banks pared back bond holdings and shortened duration to minimize capital losses. Market stress in overseas sovereign debt markets or rating downgrades could also push up JGB yields.

- *Market volatility.* Higher interest rate volatility could induce a JGB sell-off by banks, similar to what took place in 2003 when JGB yields rose suddenly by 100 bps.[3] Similarly, JGB rollover risks have risen along with the government's annual financing requirement (now at 55 percent of GDP including short-term financing bills). Given the large amount of bonds that need to be rolled over, uncertainty over the supply and demand of JGBs could disrupt the smooth absorption of new bond issuance.

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[1] The accompanying Selected Issues Paper by R. Lam and K. Tokuoka provides further analysis results of the risks in Japan's public debt market.

[2] See K. Tokuoka: "The Outlook for Financing Japan's Public Debt," IMF WP 10/19.

[3] This episode was termed the "VaR shock" because a rise in expected losses in banks' internal value-at-risk (VaR) models led to one-sided selling by banks as they attempted to shed risk (Bank of Japan, Financial System Report 2010).

21. In early June, the authorities outlined their social security reform plan to support their medium-term fiscal strategy. The plan proposes to gradually double the consumption tax to 10 percent by FY2015.[3] The tax increase would be used to fund social security and allow the government to meet its target of halving the primary deficit (in percent of GDP) by FY2015 as part of its medium-term fiscal strategy announced last June. The plan also proposes to raise the pension retirement age and adjust nominal pension benefits for deflation, but does not specify steps beyond FY2015 for meeting the final target of reducing the debt ratio starting in FY2021 at the latest.

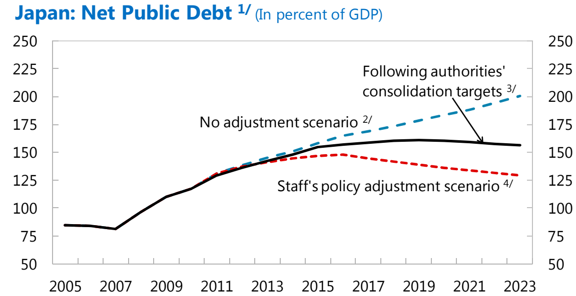
Policy Issues and Staff's Views

22. The immediate fiscal priority is to repair damaged infrastructure and facilitate a swift recovery. The government has moved quickly to pass its first supplementary budget to address immediate needs. Timely passage of an additional, more sizeable supplementary budget, which is well targeted and focused on revitalizing the affected regions, would help address downside risks and catalyze private spending.

23. At the same time, new tax measures are needed to limit bond issuance and strengthen the commitment to fiscal reforms. While other tax measures could also be considered, staff recommends a moderate increase in the consumption tax, from 5 percent to 7–8 percent, in 2012 when a cyclical recovery is underway.[4] The alternative, relying mainly on debt financing, would add to fiscal risks stemming from an already high level of public debt.

24. Bringing down public debt over the medium term will require a sustained and significant adjustment of the primary balance. Staff welcomes the recent proposal to double the consumption tax by FY2015, but more needs to be done to put the net debt-to-GDP ratio on a downward path earlier by the middle of this decade. This would reduce the risk of a more severe adjustment resulting from a loss of confidence in public finances. Based on IMF staff estimates, stabilizing the net debt ratio by 2016 and reducing it to around 135 percent of GDP by 2020 would require a reduction of the primary fiscal deficit by 10 percent of GDP over a 10 year horizon. Staff estimates that in the short run, fiscal adjustment could reduce growth by 0.3–0.5 percentage points per year, but that over the longer term it could raise growth due to improved confidence in public finances.[5]

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



Source: Cabinet Office; and staff estimates and projections.
1/ Net debt of the general government including the social security fund.
2/ No new tax measures are assumed; 3/ Staff's estimates.
4/ Policy adjustment scenario assumes a 10 percent of GDP improvement (7.5 percent of GDP relative to no adjustment scenario) of the structural primary balance between 2010-20.

25. Given the limited scope for cutting expenditure, fiscal adjustment would need to rely mainly on new revenue sources and limits on spending growth (see table). The main elements could include:

- *Comprehensive tax reform.* The key revenue measure would be a gradual increase in the consumption tax to 15 percent over several years, yielding 5 percent of GDP. To promote domestic investment, the corporate income tax rate, currently at 40 percent, could be lowered to 35 percent with revenue losses offset by reforms of personal income tax that reduce allowances and base exemptions.

[3] The plan is under cabinet consideration and does not specify a timetable for the tax rate increase. The proposed revenue measure is hence not included in staff's baseline scenario.

[4] Introducing a "solidarity" tax would also be in line with experience in other countries following large disasters, such as Chile after its earthquake in 2010 and Australia following major floods in 2011.

[5] Pelin Berkmen (2011) "The Impact of Fiscal Consolidation and Structural Reforms on Growth in Japan," IMF Working Paper 11/13.

Possible Options for Reducing the Primary Deficit by 10 Percent of GDP over 10 Years
(In percent of GDP)

	Assumed impact over 10 years	Consumption Tax Rate (In percent, currently at 5 pct) 14	15	18
Revenue from consumption tax		4.5	5.0	6.5
Withdrawal of fiscal stimulus	1.0	✔	✔	✔
Modest increase in personal income tax through broadening the base	0.5	✔	✔	✔
Freeze non social security spending in nominal terms (excluding interest payment)	2.5	✔	✔	✔
Limit annual nominal growth in non pension social security spending at 1-1.5 percent	1.0	✔	✔	
Freeze central government contributions to the public pension system in nominal terms, including through raising pension retirement age	0.5	✔	✔	
Corporate tax cut (by 5 percentage points)	-0.5		✔	✔
Total savings		10.0	10.0	10.0

- *Expenditure reform.* Freezing central government contributions to the public pension system in nominal terms, including by raising the pension retirement age, could yield ½ percent of GDP in savings. The remainder (4.5 percent of GDP) could come mainly from freezing nonsocial security spending in nominal terms and introducing an income cap on social transfers. To facilitate these reforms, we support the government's efforts to introduce a taxpayer identification system to allow a more effective targeting of social transfers.

26. Adopting an explicit fiscal rule could help sustain fiscal consolidation. In 2010, the government introduced a "pay-as-you go" budget rule that requires new expenditures be funded through offsetting savings or higher revenue. To further strengthen the commitment to cap public debt, the government could adopt an explicit fiscal rule that targets a primary surplus consistent with its debt reduction plan. The framework should be based on prudent economic assumptions and permit temporary deviations from its target only under narrowly defined conditions.

27. Lengthening the maturity of public debt would help limit rollover risks and keep funding costs low. The government has progressively lengthened the average maturity of public debt (including financing bills) to 5–6 years, close to levels in other advanced economies. However, given the large debt stock, annual financing requirements are high at about 55 percent of GDP.[6] To lower rollover risk and lock in favorably low interest rates, the government could accelerate extending of maturities by converting more short-term financing bills to longer-term debt.

[6] The financing requirement is calculated as the sum of the estimated overall deficit of the general government (about 10 percent of GDP) and the principal value of short-term financing bills and JGBs maturing in 2011 (45 percent of GDP).

28. Delays in fiscal reform could have spillovers to other countries. The capacity of the market to absorb debt will gradually decline as private savings fall due to population aging. If yields increased rapidly, Japanese banks, including Japan Post Bank, which hold almost 40 percent of outstanding JGBs, could experience sizeable losses and affect their asset portfolios. In addition, increases in JGB yields, as a result of delays in fiscal reform, may lead to higher interest rates elsewhere, especially in some economies where government debt is high.

The Authorities' Views

29. The authorities agreed on the need for a well-targeted supplementary budget and remain committed to medium-term fiscal consolidation.

- *Reconstruction spending*. The authorities stressed that the supplementary budget should be well targeted to make efficient use of the funds. The budget would also consider carefully the ideas of the government's Reconstruction Design Council and local authorities for revitalizing the affected region. The authorities are exploring various financing options, including raising the consumption, personal and corporate income taxes and viewed the issue of a temporary reconstruction tax as separate from the longer-term issue of securing fiscal sustainability.
- *Medium-term fiscal strategy*. The authorities agreed on the need for a more ambitious medium-term strategy to maintain public confidence, but noted difficulties in achieving consensus on accelerating their planned adjustment. They emphasized that given the limited room for further expenditure cuts, tax measures were crucial. The authorities acknowledged the need to contain social security expenditures, but also gave priority to securing a stable source of revenue to strengthen the credibility of the system.
- *Debt management*. The authorities did not see any immediate rollover risk to the JGB market, but nevertheless would continue to lengthen JGB maturities. They also stressed the need to take into account changes in market demand when lengthening maturities and would continue their close dialogue with market participants.
- *Fiscal rule*. The authorities were cautious about adopting an explicit fiscal rule, citing their experience with the 1997 Fiscal Structural Act whose targets were quickly abandoned after the banking crisis of the late 1990s. Instead, the authorities viewed their multi-year expenditure framework, updated annually by the cabinet, as being more flexible and effective.
- *Spillovers*. The authorities welcomed the finding that fiscal consolidation in Japan would benefit other countries, particularly if accompanied by structural reforms. On the financial linkages, however, they were skeptical about staff's tail risk analysis showing how a JGB shock could affect global financial markets through banks' balance sheets, as the share of foreign assets held by Japanese banks was around 10–20 percent. In general, they cautioned against relying too heavily on models of financial contagion and strict interpretation of the results.

B. Monetary Policy Options to End Deflation

Background

30. Prior to the earthquake, the BoJ substantially broadened its policy toolkit for easing monetary policy. In late 2010, under its comprehensive monetary easing policy the BoJ (i) adopted a "virtually zero interest rate" policy, (ii) committed to maintain zero interest rates until it judges that price stability is in sight on the basis of its "medium- to long-term understanding of price stability,"[7]

[7] The BoJ's Policy Board members' "understanding of medium- to long-term price stability" is for year-on-year change in the CPI "to fall in a positive range of 2 percent or lower, centering around 1 percent." The BoJ uses the annual headline inflation rate as the primary policy consideration and the policy

(continued)

(iii) introduced a new asset purchase program, covering corporate bonds, commercial paper, exchange-traded funds (ETFs), and real estate investment trusts (REITs), in addition to government securities (¥5 trillion).

31. Following the earthquake, the BoJ undertook further easing measures. It expanded the size of the asset purchases to ¥10 trillion (text table). The BoJ also introduced a new ¥1 trillion loan program to support lending activity of financial institutions in the affected regions and expanded its lending facility to "strengthen the foundations of economic growth" by ¥½ trillion to encourage asset-based lending by financial institutions. Event study analysis finds that the BoJ's monetary easing measures have cumulatively lowered the 10-year sovereign yield by about 25 basis points in the first week after the announcements, while equity prices rose by about 5–7 percent (Box 4).

Asset Purchase Program (In trillions of yen) 1/

	Target level 1/	Amount outstanding (as of end-May 2011)
Asset purchases		
Government securities 2/	5.0	3.0
Commercial paper	2.0	1.2
Corporate bonds	2.0	0.5
Exchange-traded funds	0.9	0.3
Real estate investment trusts	0.1	0.0
Subtotal	*10.0*	*5.0*
Fixed-rate fund-supplying operation against pooled collateral	30.0	29.6
Total	40.0	34.6

Source: Bank of Japan
1/ Target level was raised from 35 to 40 trillion yen after the earthquake in mid-March 2011.
2/ Includes government bonds and Treasury bills.

32. Despite the pick-up in headline inflation, deflation pressures continue to persist. Higher fuel prices have pushed up headline inflation with the BoJ's forecast of core inflation (which excludes fresh food but includes energy) in FY2010–11 now around 0.6–0.7 percent. Underlying core inflation (excluding food and energy), however, remains subdued and has averaged around -1 percent since 2009 following a decade of mild deflation driven by structural factors related to population aging and diminished growth expectations. Although the initial impact of the earthquake on inflation is unclear, the sharp fall in demand and heightened uncertainty about the outlook could weaken inflation expectations. In addition, the rebasing of the inflation index in August 2011, which is estimated by market analysts to reduce the price level by around 0.5 percentage points, could push headline inflation back into negative territory.

Policy Issues and Staff's Views

33. Broader communication of the special factors driving inflation could help clarify the BoJ's policy stance. In its regular reports, the BoJ has usefully explained that the rise in inflation has been partly due to higher international commodity prices. The BoJ could further strengthen communication by regularly reporting the outlook for different inflation indices and explain their influence on monetary policy setting. In the current environment, where underlying inflation pressures are very subdued, the BoJ should give high weight to measures of inflation that exclude food and energy.

34. To insure against deflation risks, the BoJ could consider[8]:

- *Further monetary easing*. To further reduce term premia on yields, the BoJ could increase the share of longer maturity JGBs (3 years and above) in its portfolio. And it could expand its special loan facility to "support the foundations of growth" to include reconstruction projects in the affected regions.

commitment is conditional on the absence of risk factors, such as financial imbalances, under the BoJ's second perspective.

[8] The accompanying Selected Issues Paper by P. Berkmen analyzes the effectiveness of recent easing measures in stimulating economic activity.

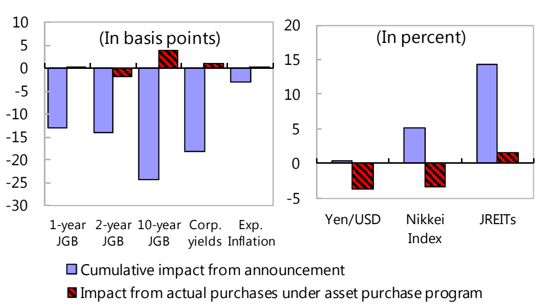
Box 4. Bank of Japan's Monetary Easing Measures— Are they Comprehensive and Powerful?[1]

This box outlines an event study to assess the initial impact of the BoJ's asset purchases on financial markets. The events are selected based on the dates on which the BoJ announced and implemented its new monetary measures since December 2009. These measures include the introduction of fixed-rate funds-supplying operation against pooled collateral, a lending facility to strengthen the foundations of economic growth, and the asset purchase program under the Comprehensive Monetary Easing. To isolate the impact of the measures, changes in several high-frequency financial indicators around the events are compared with the changes in a typical trading day. This methodology has been widely applied in other studies, such as those on the Fed's large scale asset purchase program (e.g., Gagnon 2010).

BoJ's easing measures have had a favorable impact on asset prices, mostly from announcement effects (see chart). Across the identified events, after the BoJ announcements, the asset prices have generally improved. Specifically,

- *Sovereign yields*. The 10-year JGB yield fell cumulatively by nearly 25 basis points, and the 2-year JGB yield by more than 10 basis points. These declines were statistically significant and larger than the 0.1 basis point change in a typical two-day trading window. The term premium also fell, helping to flatten the yield curve.
- *Corporate yields.* Yields on corporate bonds across various investment grades declined initially, but reverted by the end of the following week.
- *Stock prices.* Equity prices improved by more than 5–7 percent, with the increase being statistically significant compared with the changes during typical trading days.
- *Exchange rate and inflation expectations.* Monetary easing, however, had almost no measurable effect on the exchange rate or inflation expectations.

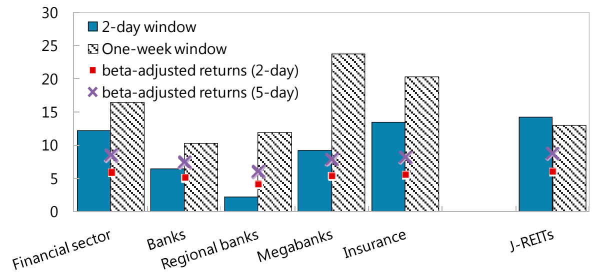
Announcement and Purchases Impact on Financial Markets



Source: Bank of Japan; IMF staff estimates.

Across industries, BoJ easing has been most effective in the financial and real estate sectors (see chart). After the easing announcements, equity prices of insurance companies and large banks rose strongly relative to the market index (more than 10 percent in total across the events identified). By contrast, equity prices in other sectors did not show significant excess return (after adjusting for industry beta) compared with the overall market.

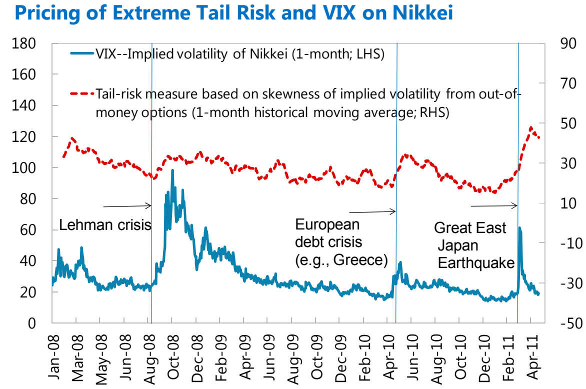
Cumulative Impact of Monetary Easing Announcements on the Financial Sector (In percent)



Sources: Bloomberg and staff estimates.
1/ Events defined as in the text. Beta-adjusted return is calculated as industry beta multiplied by the market return. The cumulative impact on megabanks, insurance companies, and J-REITs is significant at the 5 percent level in the two-day and weekly windows. The impact on the financial sector as a whole is significant at 5 percent in the two-day window.

The asset purchase program introduced in October 2010 appears to have lowered tail risks in financial markets. Following the announcement of the program, implied volatility on assets declined significantly, helping to reduce risk premia and support investors' risk appetite. Markets' perceived risk of a double-dip recession also receded, as indicated by the decline in the implied volatility of out-of-the-money call and put options—a measure of the cost of insuring against extreme tail risk events. Although the size of the impact on financial markets has been modest, the results suggest that the asset purchases have been effective in reducing term and risk premia and could be expanded further to support activity.

Pricing of Extreme Tail Risk and VIX on Nikkei



Sources: Bloomberg and staff estimates.

[1] See Selected Issues Paper by R. Lam (2011) "Bank of Japan's Monetary Easing Measures—Are they Comprehensive and Powerful?"

- *Additional purchases of private assets.* To stimulate activity, the BoJ could accelerate and expand its purchases of corporate bonds, commercial paper, and ETFs. The BoJ could also purchase securitized SME loans to ease financial conditions and foster a new market for lending to smaller firms.

35. Monetary easing has had little effect on the yen exchange rate. Since the global crisis, interest differentials between major currencies have narrowed and reduced incentives for yen-funded carry trade. However, as Japan is likely to maintain an accommodative stance for longer than other advanced economies, the yen could weaken and affect other economies via trade and financial channels although a return of large-scale carry trades appears unlikely.

The Authorities' Views

36. The BoJ viewed their exceptionally accommodative monetary stance as sufficient to stabilize financial markets and meet demand for credit. While the BoJ recognized the argument for easing further to insure against possible downside risks, their outlook did not warrant such action now. They also emphasized that policy insurance involved a cost, and that the case for further easing needed to be weighed against the possible side effects associated with unorthodox policies:

- *Extending maturities of JGB purchases*. The BoJ agreed that buying JGBs of longer maturity could absorb duration risk and catalyze portfolio rebalancing, but given the very low 10-year JGB yield, the expected gains would appear limited. More importantly, without a credible fiscal strategy, it may send the wrong signal that debt issuance is becoming unconstrained and adversely push up long-term yields.
- *Special loan facility to support the foundations of growth*. The BoJ noted that they have already used up most of the committed ¥3 trillion in funds and have upgraded the facility but wished to avoid contributing to excess loan competition. They were also unsure whether the loan facility, which targeted innovative sectors for development, was best suited to deal with immediate reconstruction needs.
- *Purchases of private assets*. The BoJ is still purchasing private assets and evaluating their impact. Again, expanding the program needed to be weighed against the side effects of distorting the market mechanism and sacrificing the soundness of the BoJ's balance sheet. SME securitized loans is a promising area for development but the market is still too small and illiquid for the BoJ to enter.

37. In communicating their assessment of the inflation outlook, the BoJ cautioned against relying too heavily on core-core measures of inflation. Because the BoJ believes that no single indicator can adequately capture underlying inflation, they analyze various inflation measures in their regular reports. The BoJ noted that their core measure excluding volatile fresh food but including fuel was shown to be a robust predictor of future inflation. They cautioned against paying too much attention to core-core measures if the rise in commodity prices proves to be more persistent. On the rebasing of the CPI, the BoJ has highlighted in their reports the likely downward revision in the CPI but expressed reservations about providing an estimate given the difficulty in predicting its magnitude.

C. Safeguarding Financial Stability

Background

38. Swift and decisive policy action has helped the financial sector weather well the initial shock of the earthquake. On the first business day after the disaster, the BoJ provided an unprecedented ¥21.8 trillion yen of short-term liquidity, nearly three times larger than that injected after the Lehman crisis. The BoJ and the Financial Services

Agency (FSA) also took steps to ensure smooth functioning of financial transactions in the affected regions.

39. Exposures of the banking and insurance sectors to the affected regions are limited.

- Major banks, which account for 53 percent of total banking assets, have only a small exposure to the affected areas (½ percent of their loans) with estimated losses well within their capital buffers. Major banks have steadily raised their Tier 1 capital ratio to 13 percent at end FY2010, but still hold about one-third of this capital in the form of preferred securities and tax deferred assets.
- A few regional and *shinkin* banks (credit unions) have sizeable exposures to the affected regions and could face large losses, but these banks pose little systemic risk given their small size (2 percent of the banking system) and limited connectedness. Overall, regional banks' Tier-1 capital ratio stood at 9.4 percent in FY 2010.[9]
- Domestic insurance companies are expected to have sufficient reserves to meet disaster claims. Insured losses from life and non-life insurers are estimated at around ¥2.7 trillion, well within the solvency margins, which stood at above 760 percent of liabilities.

40. Financial markets have reacted negatively to uncertainty about the financial situation of the Tokyo Electric Power Company (TEPCO) and its possible implications for creditors and shareholders. TEPCO's share price has fallen by nearly 90 percent since the earthquake, with the company reporting losses of around ¥1¼ trillion in FY2010. Major banks have around ¥3 trillion in loans to TEPCO, of which around ¥2 trillion were extended as emergency financing after the disaster.

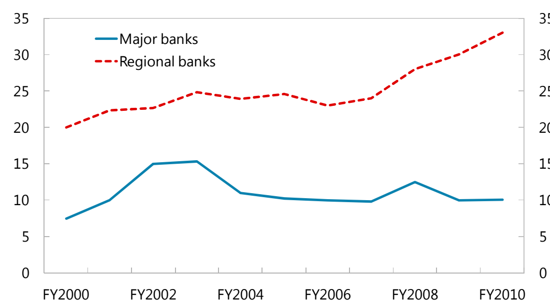
[9] The release of FY2010 financial information for the *shinkin* banks has been delayed due to the earthquake.

Policy Issues and Staff's Views[10]

41. Banks face risks from a sluggish recovery. A delayed recovery could raise credit costs, especially on loans to heavily indebted small and medium-sized enterprises (SMEs). Looking ahead, once the recovery is underway, existing emergency support measures on SMEs loans should be withdrawn to limit moral hazard risks and strengthen risk management towards SMEs.[11]

42. Banks also face significant market and interest risk. Their holdings of equities account for nearly one half of Tier-1 capital and bank-held government bonds are over 15 percent of their total assets. Supervisors should continue to encourage banks to monitor market risks closely and reduce their equity holding. To minimize spillovers from TEPCO's financial problems, any rehabilitation plan should follow applicable laws on the treatment of claims on TEPCO.

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



Source: Bank of Japan.
1/ FY2010 figures as of end-September, 2010.

[10] A Financial Sector Assessment Program (FSAP) Update in the coming year will provide an opportunity to explore issues related to safeguarding financial stability and sound supervision, the impact of new global regulatory measures on Japanese financial institutions, and policies to improve financial intermediation.

[11] Special SME measures include (i) relaxation of existing loan repayment conditions; (ii) extensions of credit guarantee and coinsurance schemes for small businesses; (iii) disaster restoration loans on favorable terms; and (iv) establishing special consultation venues for SME inquiries.

43. Core profitability of Japanese banks remains low. FY2010 results for the major banks show that, despite improving credit costs, net interest margins remain very compressed while overall lending declined. Reforms to promote more risk-based (as opposed to collateral-based) lending would help increase margins while consolidation or restructuring of weak regional banks, including through the use of public funds, would strengthen the banking sector. Privatization of Japan Post would also ensure a level playing field and broaden financial intermediation.

44. Possible capital surcharges and other regulations under the new Basel framework for globally systemically important financial institutions (G-SIFIs) could have implications for Japanese financial institutions. While the outcome is still under discussion, if classified as G-SIFIs, those Japanese financial institutions would have to meet the surcharges and additional regulations within the agreed timeline.[12]

The Authorities' Views

45. The authorities noted that the financial sector has remained resilient since the disaster. They ascribed the smooth financial intermediation to the response by financial institutions, the BoJ, as well as the government. In particular, amendments to the *Act on Special Measures for Strengthening Financial Functions* to enhance financial intermediation through injection of public funds into disaster-affected institutions helped maintain market confidence.

46. Supervisors considered current bank capital levels to be sufficient to cover credit and market risks.

- *Credit risk*. Supervisors recognized that while credit risk could increase with a slow recovery, the rise in credit costs was likely to be manageable. Banks have also steadily reinforced their capital base through retained earnings following large-scale capital increases since FY2009.
- *Market risk*. On interest risk, officials noted that the impact of yield curve changes on the financial sector was unclear. To reduce banks' exposure to equity volatility, supervisors would continue to encourage banks to reduce their overall equity holdings.
- *Stress test*. The authorities noted that under a severe stress test scenario of a 1 percentage point slowdown in growth combined with a decline in equity prices to the lowest level since 2008, Japanese banks' capital as a whole would remain above regulatory minimum levels. Although this stress test was conducted before the earthquake, the magnitude of the shock can be considered similar to the impact of the earthquake.

47. The authorities shared staff's concern over the uncertain situation surrounding TEPCO. They agreed that resolving TEPCO's problems should avoid unintended spillovers to the financial sector while the government establishes a framework for appropriately compensating for damages and restoring electricity supply.

48. The FSA is focusing on strengthening risk management to boost bank profitability. The FSA saw relationship-based banking as a way to strengthen risk management by promoting closer consultation between banks and their borrowers. As Japanese banks expand lending in Asia, the FSA aims to monitor closely banks' risk management practices. For the weakest banks, the FSA considered capital injections under the proposed amendments to the *Act on Special Measures* as a potentially effective policy tool for strengthening financial intermediation and depositor confidence.

49. The authorities noted that it is premature to assess the financial impact of the G-SIFIs regulations now under discussion. Nevertheless, higher capital surcharges and other regulations could

[12] See 'Impact of Regulatory Reforms on Large and Complex Financial Institutions', IMF Staff Position Note, November 2010 (SPN/10/16).

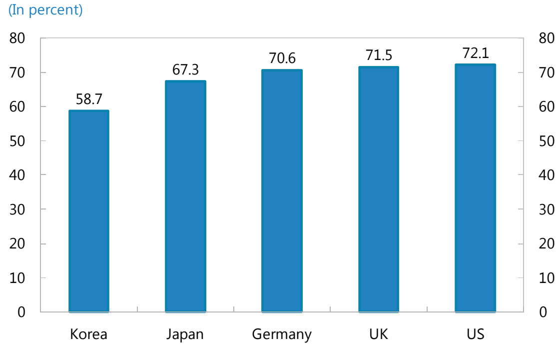
constrain banks in supporting the recovery. To minimize this risk, the authorities viewed that the G-SIFIs policy framework should avoid excessive regulations, ensure that global SIFIs be regulated according to their respective risk levels, and adopt a comprehensive, well-balanced policy package, rather than focusing exclusively on additional capital adequacy regulation.

D. Japan's Growth Strategy after the Earthquake

Policy Issues and Staff's Views

50. Implementing the government's Growth Strategy would help raise trend growth and sustain fiscal consolidation. Japan's potential growth has declined since the 1990s due to a shrinking labor force and slower capital accumulation. The government last year set out an ambitious goal of more than doubling trend growth to 2 percent by the end of the decade. Notwithstanding the large but temporary shock, the earthquake provides an opportunity to broaden and accelerate reforms in several areas:

Female Labor Participation Rate, 2008
(In percent)



Sources: OECD Labor Force Statistics.

- *Boosting employment*. Improving access to childcare by easing the approval process for new facilities would increase female employment, while raising the mandatory retirement age would increase the share of elderly in the labor force. A new, more flexible labor contract that gradually increases employment protection would facilitate the employment of young workers and help narrow the gap between regular and nonregular workers.[13]

- *Raising productivity through regional integration*. Further trade liberalization, such as through the proposed Trans Pacific Partnership Agreement (TPP),[14] could open the door to new export markets and greater inward FDI. Negotiations would likely cover protected sectors and further deregulation and market opening could be a catalyst for productivity improvements, particularly in agriculture, health, and other services.[15]

- *Promoting start-ups and restructuring SMEs*. To support start-ups, the time limit on public credit guarantees should be shortened from the current 7–10 years and some preference for guarantees given to businesses in new growth areas. Establishing asset management companies to purchase distressed loans would promote bank-led restructuring and reduce leverage in the SME sector.

The Authorities' Views and Policy Intentions

51. The authorities view their growth strategy as important for achieving fiscal adjustment and were supportive of staff proposals that complement their own.

- *Boosting labor participation*. In response to the high drop-out rate of women from the labor force following childbirth, the authorities plan to increase childcare services, including by merging

[13] See accompanying Selected Issues Paper by Masato Nakane and Chad Steinberg (2011) "To Fire or to Hoard? Explaining Japan's Labor Market Response in The Great Recession", IMF Working Paper 11/15.

[14] The Trans-Pacific Partnership is a multilateral free trade agreement between Brunei, Chile, New Zealand, and Singapore with ongoing negotiations to include Australia, Malaysia, Peru, the United States, and Vietnam.

[15] Results from trade models suggest that joining the TPP could raise Japan's annual export growth by between 1–4 percentage points and benefit regional trading partners.

kindergarten and childcare systems. They also highlighted job training and matching efforts to raise employment of the young and elderly.

- *Trans Pacific Partnership Agreement*. The authorities agreed that participation in the TPP would provide a boost to exports and encourage new investment in the service sectors. However, after the earthquake, the need to evaluate the impact of a TPP on farming and fishing in the affected regions has delayed a decision to join negotiations. The authorities underscored that a plan on agricultural compensation will likely be needed to garner broader support for the TPP.

- *SME restructuring*. The authorities were generally supportive of reforming the credit guarantee system to promote start-ups and keeping guarantee maturities reasonably short and limiting rollovers.[16] However, altering the system now would be difficult given its widespread use and 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 before laying out concrete proposals.

[16] The average length of a credit guarantee is about 5½ years, shorter than the maximum limit of 7 and 10 years under the regular and special guarantee systems.

E. Staff Appraisal

52. Japan's economy is set to recover later this year. Supply disruptions are easing faster than expected, and reconstruction spending will provide a boost in the second half of the year. However, the recovery faces risks from delays in restoring electricity capacity and a slow pick-up in private demand.

53. A significant downside risk to the outlook is uncertainty over longer-term electricity supply. With nuclear power plants potentially remaining offline following routine inspections, Japan could lose a significant share of its electricity supply. Uncertainty over the power situation and higher energy costs could undermine confidence and accelerate a shift of production abroad.

54. The immediate priority is to repair damaged infrastructure and facilitate a swift recovery. Timely passage of an additional supplementary budget that is well-targeted to revitalize the affected regions would help address downside risks and catalyze private spending. While other tax measures could also be considered, financing should be supported by a moderate increase in the consumption tax in 2012 to take advantage of a cyclical recovery and limit bond issuance.

55. Japan needs a more ambitious medium-term strategy for bringing down public debt. To reduce the public debt ratio by the middle of the decade will require a reduction in the structural primary deficit by 10 percent of GDP over a 10 year period. Given the limited scope for cutting expenditures, fiscal adjustment should rely on comprehensive tax reforms centered on a gradual increase in the consumption tax. Raising the average maturity of public debt and adopting an explicit fiscal rule based on a primary surplus and debt target with limited escape clauses would strengthen the credibility of these efforts and reduce fiscal risks.

56. Further monetary easing could guard against deflation risks and support the recovery. Although the impact of the earthquake on inflation is unclear, the sharp fall in demand and heightened uncertainty about the outlook could add to deflationary pressures. To guard against such deflation risks, the BoJ could consider increasing the share of longer maturity JGBs and private assets in its portfolio. The BoJ could also strengthen its communication strategy by explaining the outlook for inflation measures that exclude both food and energy.

57. Financial policies should protect against the risk of an economic slowdown and higher market volatility. To strengthen the resilience of the financial system, supervisors should encourage weak banks to improve their capital bases and take early action vis-à-vis distressed borrowers. To raise banks' core profitability, a shift to more risk-based (as opposed to collateral-based) lending would help increase lending margins, while consolidation or restructuring of weak regional banks would strengthen the banking sector.

58. Timely implementation of the government's growth strategy would help sustain fiscal adjustment and support the recovery. Priority should be given to expanding employment opportunities for women, youth, and the elderly and raising productivity by promoting further regional trade integration, such as through the proposed Trans Pacific Partnership (TPP). Reorienting the public credit guarantee system to support startups and establishing asset management companies to purchase distressed SME loans would promote bank-led restructuring of the SME sector.

59. As one of the largest and richest economies in the world, Japan is an important contributor to regional growth

and stability.[17] Japan accounts for nearly 9 percent of global GDP and about half of its international trade is conducted with the region. Its sophisticated manufacturing base contributes a large share of value added to regional production chains and Japanese final demand is an important and stable source of export demand for its Asian trading partners.

60. To maintain these positive spillovers, fiscal and structural reforms are essential. Fiscal consolidation would have long-term benefits for its partners by reducing tail risks from a disruption in Japan's large sovereign debt market and freeing up domestic savings to help lower global interest rates.

61. Despite the adversity caused by the earthquake, Japan continues to demonstrate its strong commitment to international cooperation. Japan has enacted swiftly the law and budget to contribute to the replenishment of capital of the International Development Association (IDA) of the World Bank and other multinational development banks, as well as the quota increase of the IMF.

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

[17] See accompanying Japan Spillover Report.

Table 1. Japan: Selected Economic Indicators Table, 2006-12

Nominal GDP: US$5,459 billion (2010)
Population: 127.6 million (2010)
GDP per capita: US$42,783 (2010)
Quota: SDR 15,628.5 million

	2006	2007	2008	2009	2010	Proj. 2011	2012
Growth (percent change) 1/							
Real GDP	2.0	2.4	-1.2	-6.3	4.0	-0.7	2.9
Domestic demand	1.2	1.3	-1.4	-4.8	2.1	0.0	2.5
Private consumption	1.5	1.6	-0.7	-1.9	1.8	-1.2	1.3
Residential investment	0.5	-9.6	-8.0	-14.0	-6.3	4.5	3.4
Business investment	2.3	2.6	-1.4	-16.7	2.1	0.4	5.8
Government consumption	0.4	1.5	0.5	3.0	2.2	1.6	1.6
Public investment	-5.7	-7.4	-8.6	10.4	-3.4	8.1	-0.2
Stockbuilding 2/	0.2	0.3	-0.2	-1.5	0.6	-0.1	0.5
Net exports 2/	0.8	1.1	0.2	-1.5	1.8	-0.7	0.4
Exports of goods and services	9.7	8.4	1.6	-23.9	23.9	0.9	9.7
Imports of goods and services	4.2	1.6	0.4	-15.3	9.8	7.7	9.6
Inflation (annual average)							
CPI 3/	0.3	0.0	1.4	-1.4	-0.7	0.1	0.0
GDP deflator	-0.9	-0.7	-1.0	-0.4	-2.1	-1.1	-0.3
Unemployment rate (annual average)	4.1	3.9	4.0	5.1	5.1	4.9	4.7
Government (percent of GDP)							
General government							
Revenue	30.7	31.0	31.6	29.8	30.6	31.4	32.1
Expenditure	34.7	33.4	35.8	40.1	40.2	41.9	41.1
Balance	-4.0	-2.4	-4.2	-10.3	-9.6	-10.5	-9.1
Primary Balance	-3.4	-1.8	-3.3	-9.2	-8.5	-9.0	-7.6
Public Debt, gross	191.3	187.7	195.0	216.3	220.4	233.1	236.6
Money and credit (percent change, end-period)							
Base money	-20.0	0.4	1.8	5.2	7.0	16.2 6/	…
M2 (period average)	0.7	2.1	1.8	3.1	2.3	2.7 6/	…
Domestic credit	-0.9	-2.2	48.1	1.2	1.4	1.9 5/	…
Bank lending	2.8	0.8	4.6	-0.9	-1.8	-0.5 6/	…
Interest rate							
Overnight call rate, uncollateralized (end-period)	0.28	0.46	0.10	0.09	0.1	0.1 6/	…
Three-month CD rate (annual average)	0.22	0.51	0.51	0.33	0.3	0.3 7/	…
Official discount rate (end-period)	0.40	0.75	0.30	0.30	0.3	0.3 6/	…
Balance of payments (in billions of US$)							
Current account balance	170.4	211.0	157.1	141.8	195.9	144.7	170.9
Percent of GDP	3.9	4.8	3.2	2.8	3.6	2.5	2.9
Trade balance	81.1	105.1	38.4	43.4	91.0	27.5	56.4
Percent of GDP	1.9	2.4	0.8	0.9	1.7	0.5	1.0
Exports of goods, f.o.b.	615.7	678.4	746.5	545.3	730.1	800.1	930.5
Imports of goods, f.o.b.	534.6	573.3	708.0	501.9	639.1	772.6	874.1
Oil imports (trade basis)	123.3	130.1	190.6	99.9	134.3	183.0	195.5
FDI, net (percent of GDP)	-1.3	-1.2	-2.2	-1.2	-1.1	-1.0	-1.0
Terms of trade (percent change)	-6.8	-2.1	-9.6	19.5	-3.3	-7.2	-0.6
Change in reserves	32.0	36.5	30.8	27.3	44.3	…	…
Total reserves minus gold (in billions of US$)	879.7	952.8	1009.4	1022.2	1096.2	1101.7 6/	…
Exchange rates (annual average)							
Yen/dollar rate	116.3	117.8	103.4	93.6	87.8	80.6 7/	…
Yen/euro rate	146.0	161.4	152.1	130.3	116.5	114.5 7/	…
Real effective exchange rate 4/	64.8	59.8	66.9	78.1	83.8	86.7 6/	…
Real effective exchange rate (CPI-based)	90.6	83.2	90.1	101.5	102.7	99.6 5/	…

Sources: Global Insight, Nomura database; IMF, Competitiveness Indicators System; and Fund staff estimates and projections as of June 17, 2011.

1/ Annual growth rates and contributions are calculated from seasonally adjusted data.
2/ Contribution to GDP growth.
3/ Based on published annual averages of the CPI index. Projections do not reflect the expected downward revision in the CPI due to the base-year change scheduled for August 2011.
4/ Based on normalized unit labor costs; 2000=100.
5/ April 2011.
6/ May 2011.
7/ June 24, 2011.

Table 2. Japan: General Government Operations, 2006–12

(In percent of GDP)

	2006	2007	2008	2009	2010 Est.	2011 Proj.	2012 Proj.
Total revenue	30.7	31.0	31.6	29.8	30.6	31.4	32.1
Taxes 1/	17.7	17.9	18.0	16.1	17.1	17.6	18.3
Social security contributions	10.8	10.9	11.4	11.7	11.7	12.1	12.1
Grants	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other revenue	2.2	2.2	2.2	2.0	1.8	1.7	1.7
o/w Interest income	1.9	2.0	1.8	1.6	1.5	1.4	1.4
Total expenditure	34.7	33.4	35.8	40.1	40.2	41.9	41.1
Expense	33.8	33.9	35.3	39.5	40.1	41.2	40.6
Compensation of employees	6.2	6.1	6.1	6.4	…	…	…
Use of goods and services	3.3	3.3	3.3	3.9	…	…	…
Consumption of fixed capital	3.1	3.2	3.3	3.5	3.5	3.5	3.5
Interest	2.4	2.5	2.5	2.6	2.6	2.9	2.8
Grants	0.1	0.1	0.1	0.1	…	…	…
Social security benefits	16.4	16.5	17.3	19.5	19.6	20.4	20.3
Other expense	2.3	2.3	2.6	3.5	…	…	…
Net acquisition of nonfinancial assets	0.9	-0.5	0.5	0.6	0.2	0.7	0.5
Acquisitions of nonfinancial assets	4.1	2.7	3.8	4.1	3.7	4.2	4.1
o/w Public investment	3.3	3.1	3.0	3.4	3.2	3.7	3.6
o/w Land acquisition	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Consumption of fixed capital (-)	-3.1	-3.2	-3.3	-3.5	-3.5	-3.5	-3.5
Net lending/borrowing (overall balance)	-4.0	-2.4	-4.2	-10.3	-9.6	-10.5	-9.1
Primary balance	-3.4	-1.8	-3.3	-9.2	-8.5	-9.0	-7.6
Excluding social security fund	-2.6	-0.8	-2.2	-7.5	-6.5	-7.0	-5.5
Structural balance 2/	-3.9	-2.6	-3.7	-7.0	-7.7	-8.1	-7.7
Financing	4.0	2.4	4.2	10.3	9.6	10.5	9.1
Net issuance of debt securities	1.7	3.5	0.7	10.2	…	…	…
Other	2.3	-1.1	3.5	0.1	…	…	…
Stock positions 3/							
Debt							
Gross 4/	191.3	187.7	195.0	216.3	220.3	233.1	236.6
Net	84.3	81.5	96.5	110.0	117.6	130.9	138.2
Net worth	9.6	11.9	1.2	-10.4	…	…	…
Nonfinancial assets	93.9	93.4	97.7	99.7	…	…	…
Net financial worth	-84.3	-81.5	-96.5	-110.0	…	…	…
Financial assets	107.0	106.2	98.5	106.3	…	…	…
Currency and deposits	23.4	19.8	16.9	16.4	…	…	…
Loans	13.4	11.3	10.6	12.5	…	…	…
Securities other than shares	24.1	24.3	27.5	26.0	…	…	…
Shares and other equities	19.9	22.5	19.8	22.6	…	…	…
o/w shares	6.2	8.9	6.3	7.8	…	…	…
Financial derivatives	0.0	0.0	0.0	0.0	…	…	…
Other financial assets	26.2	28.2	23.7	28.8	…	…	…
Liabilities	191.3	187.7	195.0	216.3	…	…	…
Loans	39.7	36.3	35.5	37.6	…	…	…
Securities other than shares	140.8	140.9	149.7	166.8	…	…	…
Equities	5.1	5.1	5.2	5.7	…	…	…
Financial derivatives	0.0	0.0	0.0	0.0	…	…	…
Other liabilities	5.7	5.3	4.5	6.2	…	…	…
Memorandum items :							
Nominal GDP (FY, trillion yen)	510.9	515.8	492.1	474.0	476.0	474.2	484.7
Nominal GDP (CY, trillion yen)	507.4	515.5	504.4	470.9	479.2	470.7	482.8

Source: Cabinet office; Fund staff estimates and projections.

1/ Including fines.

2/ Excluding bank support.

3/ Market value basis.

4/ Nonconsolidated basis.

Table 3. Japan: External and Financial Indicators, 2006–11

(In percent of GDP, unless otherwise indicated)

	2006	2007	2008	2009	2010	Latest 2011
External indicators						
Real exports of goods and services (percent change)	9.7	8.4	1.6	-23.9	23.9	…
Real imports of goods and services (percent change)	4.2	1.6	0.4	-15.3	9.8	…
Terms of trade (percent change)	-6.8	-2.1	-9.6	19.5	-3.3	…
Current account balance	3.9	4.8	3.2	2.8	3.6	…
Capital and financial account balance	-2.5	-4.4	-4.2	-2.9	-2.7	…
Of which :						
Inward portfolio investment	4.6	4.5	-2.2	-1.1	2.0	…
Inward direct investment	-0.1	0.5	0.5	0.2	0.0	…
Other investment liabilities (net)	-4.0	-4.7	4.2	2.8	1.3	…
Total reserves minus gold (US$ billion)	879.7	952.8	1009.4	1022.2	1011.6	1101.7
In months of imports of goods and services	16.3	16.4	14.3	19.8	16.6	…
Broad money (M2 + CDs) to reserves ratio	0.7	0.6	0.7	0.8	0.8	0.9
Foreign assets of ODCs (US$ billion)	1319.3	1544.5	1869.2	1889.4	2070.3	…
Foreign liabilities of ODCs (US$ billion)	759.4	765.9	1077.9	1231.9	1373.8	…
Net international investment position (US$ billion)	1849.4	2125.0	2181.8	2845.2	2865.1	…
Of which :						
External loan liabilities	733.9	721.1	739.9	873.7	1038.8	…
External public sector debt (gross) 1/	422.3	581.0	620.6	640.2	752.4	…
External loan liabilities to exports ratio	1.0	0.9	0.9	1.4	1.3	…
External interest payments to exports (in percent) 2/	2.5	2.5	1.9	1.6	0.9	…
Nominal effective exchange rate (percent change, period avg)	-7.3	-5.3	11.7	14.4	4.4	7.2
Financial market indicators						
General government gross debt	191.3	187.7	195.0	216.3	220.4	…
Interest rates (percent, end-year)						
3-month General collateral repo rate 3/	0.47	0.60	0.22	0.13	0.12	0.11
3-month General collateral repo rate, real 3/	0.17	-0.10	-0.18	0.72	0.42	-0.19
3-month interest rate spread vis-à-vis U.S.	-4.37	-4.36	-4.80	0.13	0.12	0.05
Stock market index (TOPIX, percent change, end-year) 4/	1.9	-12.2	-41.8	5.6	-1.0	-4.8
Banking sector risk indicators						
Total loans to assets (in percent)	28.6	26.9	27.9	27.8	26.8	...
Total loans to deposits (in percent)	79.5	77.5	79.2	75.9	73.2	...
Share of real estate sector in total lending (in percent)	18.9	19.2	19.0	20.6	20.8	...
Share of nonperforming loans in total loans (In percent, end-fiscal year) 5/ 6/	1.5	1.4	1.6	1.7	1.8	...
Risk-weighted capital ratio (in percent, end-fiscal year) 5/	13.1	12.3	12.4	15.8	17.3	...

Sources: Global Insight, Nomura Database; IMF, International Financial Statistics; Fitch IBCA; and Fund staff estimates.
1/ Public sector debt securities and other loan liabilities.
2/ Other investment income, debit.
3/ 3-month Tokyo repo rate since October 2007.
4/ Twelve-month percent change for the latest figure.
5/ Major banks. Capital ratio is on a nonconsolidated basis.
6/ 2010 refers to first half of FY2010.

Table 4. Japan: Balance of Payments, 2005–10

	2005	2006	2007	2008	2009	2010
			(In billions of U.S. dollars)			
Current account	165.7	170.4	211.0	157.1	141.8	195.9
Trade balance	93.8	81.1	105.1	38.4	43.4	91.0
Exports	567.4	615.7	678.4	746.5	545.3	730.1
Imports	473.6	534.6	573.3	708.0	501.9	639.1
Invisibles	71.8	89.3	105.9	118.6	98.4	104.9
Nonfactor services	-24.1	-18.2	-21.2	-20.8	-20.4	-16.1
Investment income	103.6	118.2	138.7	152.6	131.1	133.4
Net transfers	-7.6	-10.7	-11.6	-13.1	-12.3	-12.4
			(In percent of GDP)			
Current account	3.6	3.9	4.8	3.2	2.8	3.6
Trade balance	2.1	1.9	2.4	0.8	0.9	1.7
Invisibles	1.6	2.0	2.4	2.4	2.0	1.9
Nonfactor services	-0.5	-0.4	-0.5	-0.4	-0.4	-0.3
Investment income	2.3	2.7	3.2	3.1	2.6	2.4
Net transfers	-0.2	-0.2	-0.3	-0.3	-0.2	-0.2
			(In billions of U.S. dollars)			
Capital account	-4.9	-4.7	-4.1	-5.6	-5.0	-5.0
Financial account	-144.8	-134.7	-224.3	-204.6	-158.2	-174.7
Direct investment, net	-42.2	-56.7	-51.7	-106.2	-62.5	-58.8
Direct investment abroad	-45.4	-50.2	-73.7	-130.9	-74.2	-57.3
Foreign direct investment in Japan	3.2	-6.4	22.0	24.7	11.7	-1.5
Portfolio investment, net	-12.0	127.4	68.3	-298.7	-217.5	-153.8
Of which: Official	52.6	104.6	177.5	-27.2	-77.0	79.0
Inflows	-196.2	-71.8	-127.2	-191.8	-161.4	-264.6
Outflows	184.1	199.2	195.4	-106.8	-56.1	110.8
Other investment, net	-68.2	-173.4	-204.4	231.0	149.1	82.2
Of which: Official	25.6	-24.8	0.4	111.5	-119.4	-26.7
Inflows	122.5	57.6	-65.9	420.4	535.8	274.7
Outflows	-190.7	-231.0	-138.5	-189.4	-386.7	-192.5
Reserve assets	-22.3	-32.0	-36.5	-30.8	-27.3	-44.3
Errors and omissions, net	-16.1	-31.0	17.4	53.1	21.4	-16.2
Memorandum items :						
Nominal GDP (US$ billion)	4561.2	4364.4	4379.7	4886.5	5035.8	5470.0
Net foreign assets (NFA)/GDP	43.9	49.7	54.0	52.4	53.3	52.4
Return on NFA (In percent)	5.2	5.4	5.9	6.0	4.9	4.7

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

Table 5. Japan: Medium-Term Projections, 2009–16
(Percentage change from the previous period, unless otherwise indicated)

	2009	2010	2011	2012	2013	2014	2015	2016
Real GDP	-6.3	4.0	-0.7	2.9	2.2	2.0	1.4	1.2
Total domestic demand	-4.7	2.2	0.0	2.5	1.6	1.6	1.1	1.0
Net exports (contribution)	-2.2	2.1	-0.7	0.4	0.6	0.5	0.4	0.3
Unemployment rate (percent)	5.1	5.1	4.9	4.7	4.6	4.3	4.3	4.2
CPI inflation 1/	-1.4	-0.7	0.1	0.0	0.4	0.6	0.7	1.0
Output gap	-8.0	-4.7	-5.5	-3.3	-1.9	-0.7	-0.2	0.0
Overall fiscal balance 2/	-10.3	-9.6	-10.5	-9.1	-7.8	-7.4	-7.3	-7.4
Primary balance 2/	-9.2	-8.5	-9.0	-7.6	-6.1	-5.5	-5.1	-4.8
Debt 2/								
Gross	216.3	220.3	233.1	236.6	240.3	242.8	247.0	250.3
Net	110.0	117.6	130.9	138.2	145.0	151.0	158.2	164.9
Current Account Balance 2/	2.8	3.6	2.5	2.9	2.8	2.7	2.5	2.2

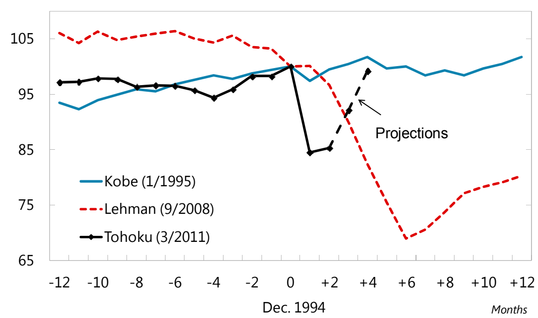
Sources: Global Insight, Nomura database; and Fund staff estimates.
1/ Projections do not reflect the expected downward revision in the CPI due to the base-year change scheduled for August 2011.
2/ In percent of GDP.

Figure 1. Economic Developments and Outlook

Production has begun to recover from the immediate impact of the earthquake…

Impact of Earthquake on the Industrial Production

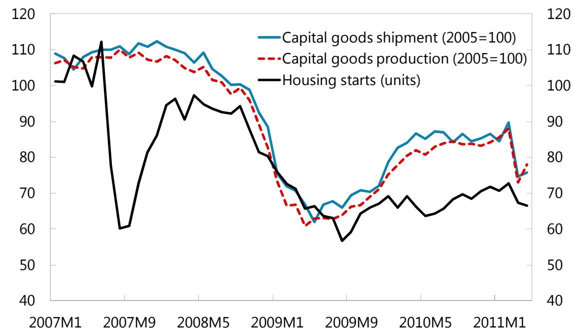
(t_0=100)



Source: Nomura Database.

… while business and residential investments remain weak.

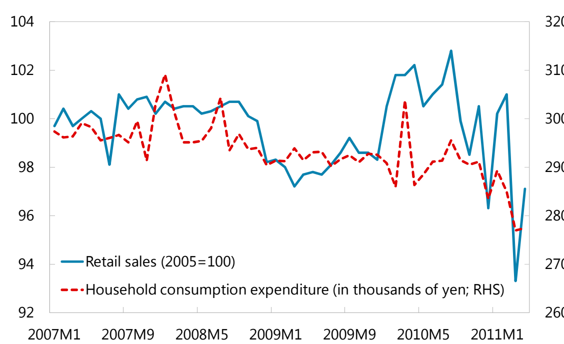
Capital Goods and Housing Starts



Source: Nomura Database.

Household spending has not yet recovered.

Private Consumption

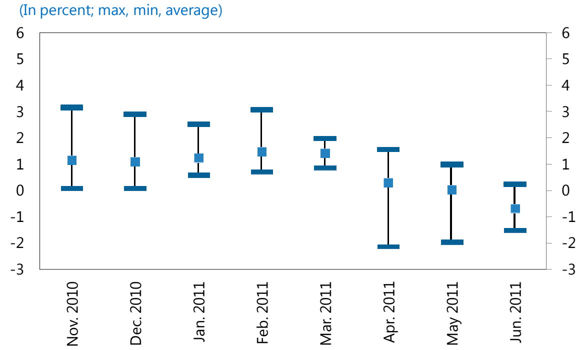


Source: Nomura Database.

Uncertainty around the outlook is large….

Consensus Forecast for 2011 Real GDP Growth

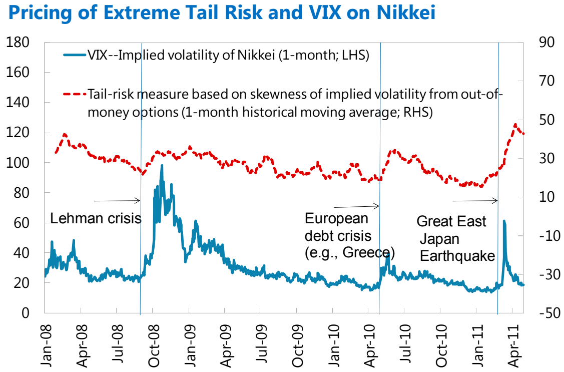
(In percent; max, min, average)



Source: Consensus Forecasts.

…and perceived tail risks have risen.

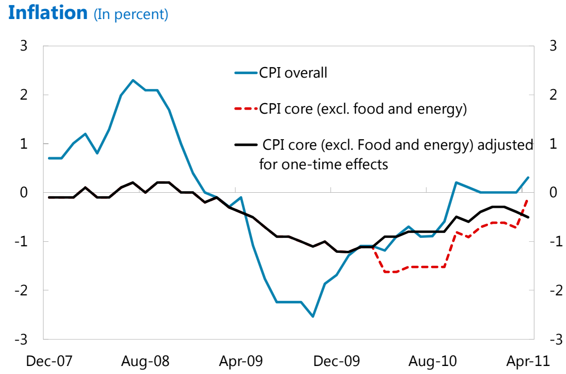
Pricing of Extreme Tail Risk and VIX on Nikkei



Sources: Bloomberg and IMF staff estimates.

Commodity prices have pushed up headline inflation, but underlying inflation remains negative.

Inflation (In percent)

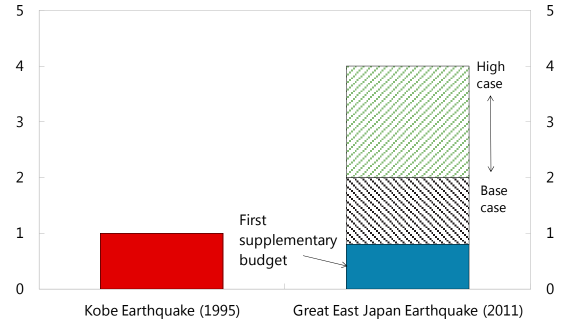


Source: CEIC database and IMF staff estimates.

Figure 2. Fiscal Policy

Estimates of the fiscal cost of the earthquake range between 2-4 percent of GDP…

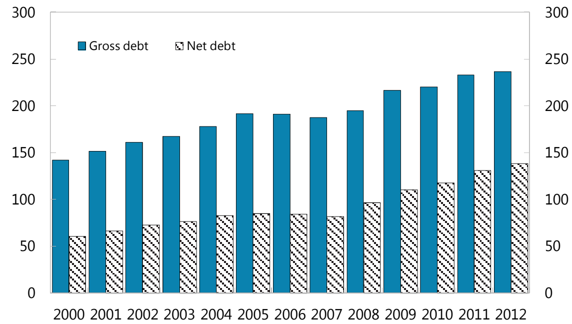
Japan: Size of Central Government Reconstruction Spending (In percent of GDP)



Source: Japanese Government; IMF staff estimates.

… and reconstruction spending is projected to push net debt above 130 percent of GDP by end-2011.

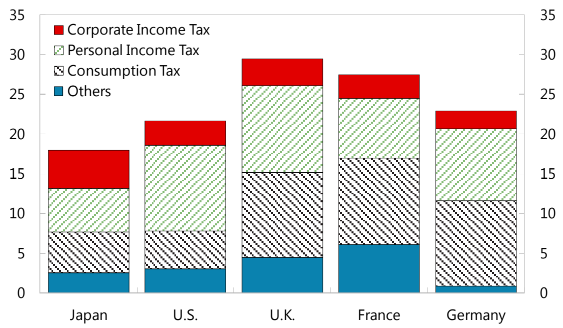
Japan: General Government Debt (In percent of GDP)



Source: IMF WEO database; IMF staff projections.

Japan has room to raise taxes to help finance reconstruction…

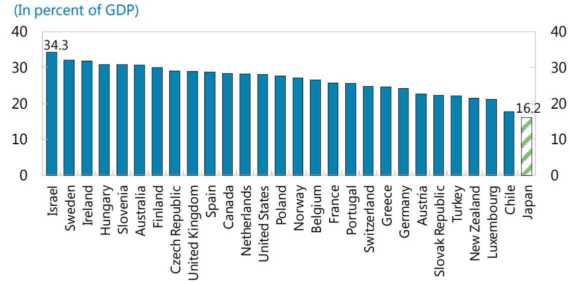
General Government Tax Revenue in 2007
(In percent of GDP)



Source: OECD.

…but limited space to cut further non-social security discretionary spending.

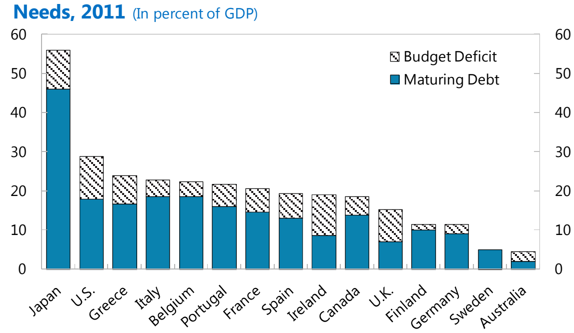
OECD Countries 1/:
Non-social Security and Non-interest Spending in 2008 2/
(In percent of GDP)



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

Gross public financing needs are high…

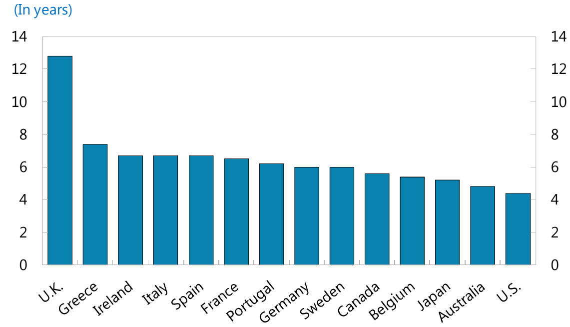
Selected Advanced Economies' Gross Public Financing Needs, 2011 (In percent of GDP)



Source: IMF Fiscal Monitor (April 2011).

…while the average maturity of debt remains low compared to the OECD average.

Advanced Economics: Average Maturity of Public Debt
(In years)

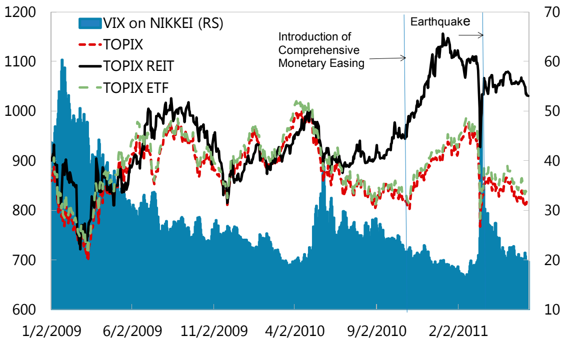


Source: IMF Fiscal Monitor (May 2010).

Figure 3. Financial Sector Indicators

Equity markets fell sharply after the earthquake and have remained about 15 percent below the pre-quake level.

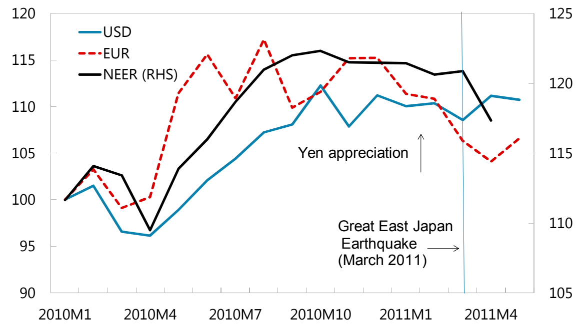
Japan: Equity Markets



Source: Bloomberg.

The yen has remained broadly stable against the USD, but has depreciated against other key currencies …

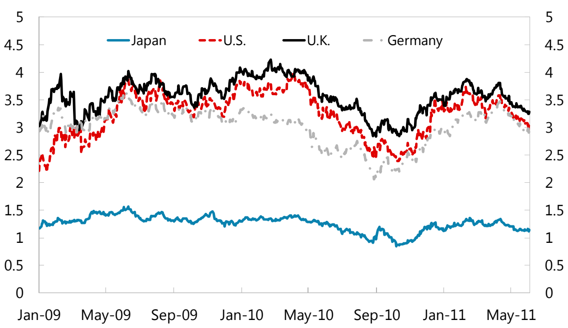
Major Currencies Against the Yen and NEER
(Jan. 2010 = 100)



Source: Bloomberg.

… and JGB yields have been broadly stable.

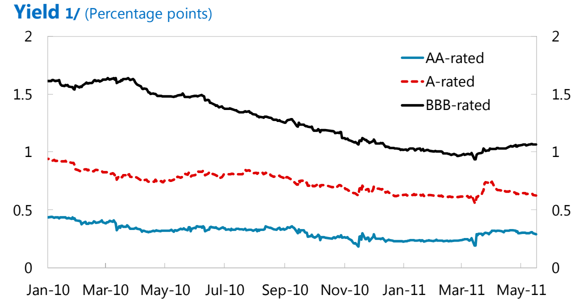
10-year Sovereign Yields
(In percent)



Source: Bloomberg.

Spreads on lower-rated corporate bonds have modestly picked up after the earthquake.

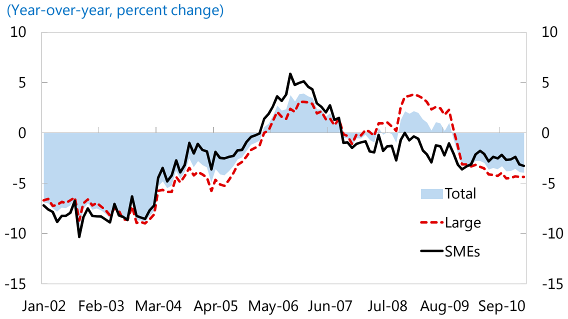
Spreads of Corporate Bond Yields over Government Bond Yield 1/ (Percentage points)



Source: Bloomberg.
1/ The spreads for corporate bonds are the corporate bond (5 year) yields minus the government bond (5 year) yield.

Credit demand remains sluggish but is expected to pick up along with reconstruction.

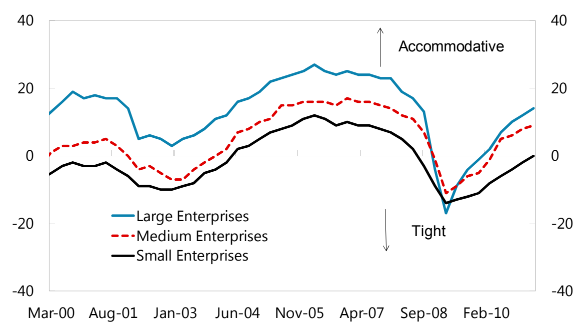
Japanese Bank Lending to Corporates
(Year-over-year, percent change)



Source: CEIC.

Financing conditions have improved but remain tight for SMEs.

Lending Attitude of Financial Institutions

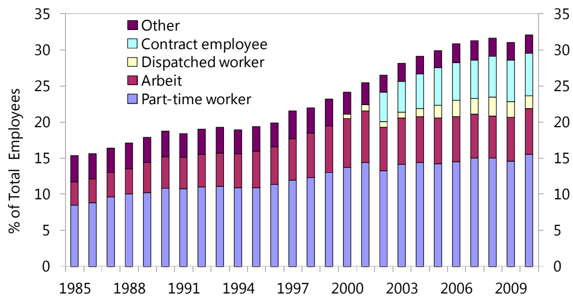


Source: Tankan Survey; Haver Analytics.

Figure 4. Labor Market and Income Inequalities

Since the mid 1990s, the share of non-regular workers has gradually increased…

Trend in Non-regular Workers [1/]
(In percent)

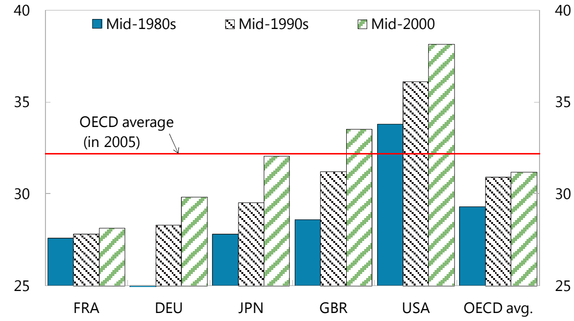


Source: MIAC Labor Force Survey.

1/ Not including Iwate, Miyagi, and Fukushima in 2010.

… and with it overall income inequality has been on the rise.

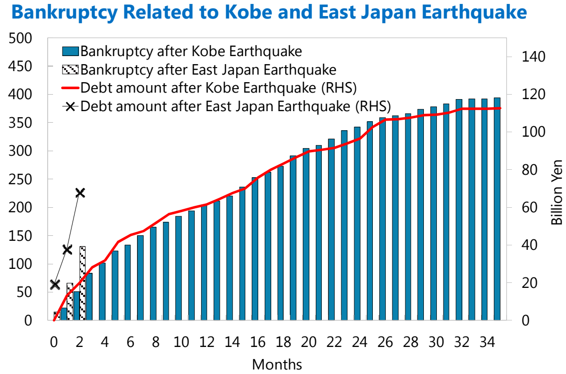
Gini Coefficients of Income Inequality: 5 OECD Countries



Source: OECD Factbook 2010.

After the earthquake business bankruptcies are set to rise as observed after Kobe….

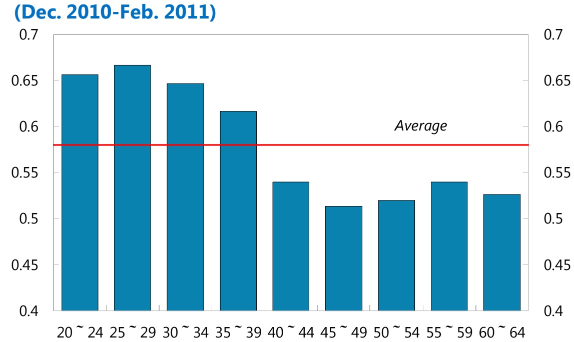
Bankruptcy Related to Kobe and East Japan Earthquake



Source: Teikoku Databank, Ltd.

…with older and low-skilled workers likely finding it more difficult to find new employment.

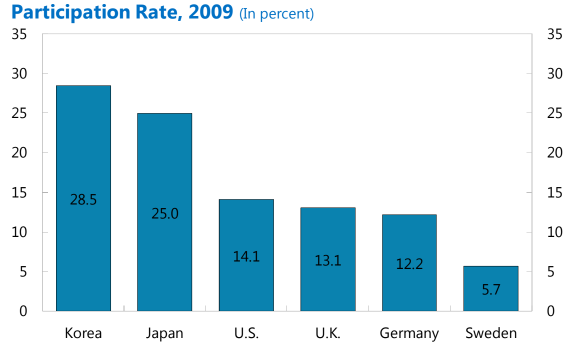
Job-to-Applicant Ratio by Age Group (Dec. 2010-Feb. 2011)



Source: MHLW.

Female labor participation is low compared to other advanced countries…

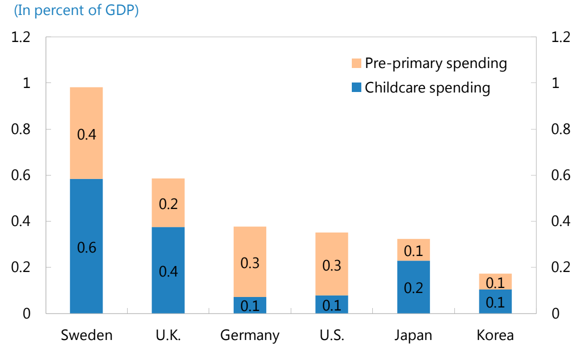
Difference in Prime-age Male and Female Labor Participation Rate, 2009 (In percent)



Source: OECD, and Fund staff calculations.

…with low public support for the child care.

Public Expenditure on Child Support, 2005
(In percent of GDP)



Source: OECD.

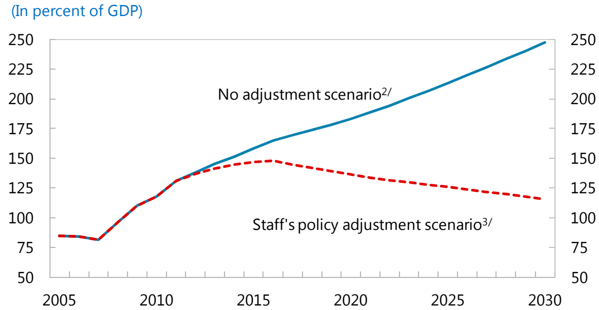
APPENDIX I. JAPAN: PUBLIC SECTOR DEBT SUSTAINABILITY ANALYSIS[1]

This appendix presents two scenarios: i) a no adjustment scenario, which leads to a continued rise in the net debt ratio; and ii) a policy adjustment scenario that would reduce the net debt GDP ratio to 115 percent by 2030.

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 1¼ percent (pre-crisis average since 2000) over the long run.[2]

No adjustment scenario. Without adjustment, net public debt would rise and approach 250 percent of GDP 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) over the next 10 years, which altogether produces an improvement of 2½ percent of GDP over the next decade in the structural primary balance.

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 new tax measures are assumed.
3/ Policy adjustment scenario assumes a 10 percent of GDP improvement (7.5 percent of GDP relative to no adjustment scenario) of the structural primary balance between 2010-20.

Policy adjustment scenario. Achieving debt sustainability will require that Japan stabilize and put its 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. This comprises of a withdrawal of stimulus (1 percent of GDP) plus additional policy measures of 9 percent of GDP, of which 5 percentage points are assumed to come from a net tax increase including a gradual rise in the consumption tax starting in 2012[3] and 4 percentage points from expenditure reforms (e.g., freezing non social security spending in nominal terms, 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 1¼ percent) would lead to a faster pace of debt accumulation. However, even with a modestly higher differential of 2 percent, the net debt-to-GDP ratio would still decline over the longer term in the policy adjustment scenario (see table). Depending on the size of the interest rate growth differential, returning the public debt ratio to its pre-crisis level by 2030 would require an adjustment of between 12½–16 percent of GDP.

[1] The analyses focus on net debt of the general government including the social security fund.

[2] Consequently, the average nominal interest rate is assumed to rise to 3¼ percent (compared to 1.1 percent currently) over the long run.

[3] More specifically, the adjustment scenario assumes a combination of a consumption tax increase by 10 percentage points cumulatively (2 percentage points each in 2012 and 2013, and 3 percentage points each in 2015 and 2017); and ii) a corporate tax cut (0.5 percent of GDP) and a personal income tax hike (0.5 percent of GDP) in 2013.

Table. Sensitivity Analysis for Debt Sustainability

	Nominal Interest Rate Growth Differential over the Long Term (in percent)	Structural Primary Balance Improvement 2010-20	Net Debt Ratio (in percent of GDP) 2011	2015	2020	2030
No adjustment scenario	1.25 (baseline)	2.5	131	158	183	247
	2.0	2.5	131	158	185	265
	4.0	2.5	131	161	209	354
Policy adjustment scenario	1.25 (baseline)	10.0	131	147	136	116
	2.0	10.0	131	147	138	127
	4.0	10.0	131	149	155	186
Target pre-crisis (2007) level in 2030	1.25 (baseline)	12.6	129	146	130	82
	2.0	13.3	129	144	130	82
	4.0	15.9	129	143	132	82

Source: Cabinet Office, and staff estimates.

Table. Japan: Public Sector Debt Sustainability Framework, 2007-2016
No Adjustment Scenario
(In percent of GDP, unless otherwise indicated)

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	**Public sector net debt 1/**	**81.5**	**96.5**	**110.1**	**117.6**	**130.9**	**138.2**	**145.0**	**151.0**	**158.2**	**164.9**
2	Change in public sector debt	-2.8	15.0	13.6	7.5	13.3	7.3	6.8	6.0	7.2	6.8
3	Identified debt-creating flows (4+7+12)	1.1	6.0	17.2	7.7	12.6	5.8	5.2	4.1	5.0	4.3
4	Primary deficit	1.8	3.3	9.2	8.5	9.0	7.6	6.1	5.5	5.1	4.8
5	Revenue and grants	31.0	31.6	29.8	30.6	31.4	32.1	32.5	32.4	32.5	32.4
6	Primary (noninterest) expenditure	32.8	34.9	39.0	39.1	40.5	39.7	38.6	37.9	37.7	37.3
7	Automatic debt dynamics 2/	-0.7	2.7	8.0	-0.8	3.6	-1.8	-0.9	-1.4	-0.1	-0.5
8	Contribution from interest rate/growth differential 3/	-0.7	2.7	8.0	-0.8	3.6	-1.8	-0.9	-1.4	-0.1	-0.5
9	Of which contribution from real interest rate	1.3	1.7	1.5	3.5	2.8	1.9	2.0	1.5	2.0	1.4
10	Of which contribution from real GDP growth	-1.9	1.0	6.5	-4.3	0.8	-3.7	-2.9	-2.9	-2.1	-1.9
11	Contribution from exchange rate depreciation 4/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Recognition of implicit or contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	Residual, including asset changes (2-3)	-3.9	9.0	-3.6	-0.1	0.7	1.5	1.7	1.9	2.2	2.4
	Public sector debt-to-revenue ratio (in percent) 1/	262.8	305.2	369.5	384.2	416.5	431.0	445.9	465.4	486.5	508.4
	Key Macroeconomic and Fiscal Assumptions										
	Real GDP growth (in percent)	2.3	-1.2	-6.3	4.0	-0.7	2.9	2.2	2.0	1.4	1.2
	Average nominal interest rate on public debt (in percent) 5/	0.8	1.1	1.1	1.1	1.2	1.1	1.2	1.3	1.5	1.6
	Inflation rate (GDP deflator, in percent)	-0.7	-1.0	-0.4	-2.1	-1.1	-0.3	-0.2	0.3	0.1	0.7

1/ General government basis.
2/ Derived as [(r - p(1+g) - g + ae(1+r)]/(1+g+p+gp)) times previous period debt ratio, with r = interest rate; p = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).
3/ The real interest rate contribution is derived from the denominator in footnote 2/ as r - π (1+g) and the real growth contribution as -g.
4/ The exchange rate contribution is derived from the numerator in footnote 2/ as ae(1+r).
5/ Derived as nominal interest expenditure divided by previous period debt stock.

INTERNATIONAL MONETARY FUND

JAPAN

June 28, 2011

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By

Asia and Pacific Department
(In consultation with other departments)

CONTENTS

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 8, 2011)

	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 2011	June 2011	D	D	D		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	5/31/2011	6/2/2011	Every 10 days	Every 10 days	Every 10 days		
Reserve/Base Money	May 2011	June 2011	M	M	M	LO, LO, LO, LO	O, O, O, O, O
Broad Money	May 2011	June 2011	M	M	M		
International Investment Position	2011 Q1	June 2011	Q	Q	Q		
Central Bank Balance Sheet	5/31/2011	6/2/2011	Every 10 days	Every 10 days	Every 10 days		
Consolidated Balance Sheet of the Banking System	Apr 2011	June 2011	M	M	M		
Interest Rates[2]	June 2011	June 2011	D	D	D		
Consumer Price Index	May 2011	May 2011	M	M	M	O, LO, O, O	O, O, LO, O, O
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	2009	Feb 2011	A	A	A	O, LNO, O, O	LO, O, O, O, LO
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	2009	Feb 2011	A	A	A		
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Mar 2011	May 2011	Q	Q	Q		
External Current Account Balance	Apr 2011	June 2011	M	M	M	O, O, LO, O	LO, O, O, O, O
Exports and Imports of Goods and Services	Apr 2011	June 2011	M	M	M		
GDP/GNP	2011 Q1	May 2011	Q	Q	Q	O, O, O, O,	LO, LO, O, O, LNO
Gross External Debt	Mar 2011	June 2011	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, 2011)

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	11,167.10	71.45
Reserve Tranche Position	4,461.70	28.55
New Arrangements to Borrow	7,070.37	

III. SDR Department:

	SDR Million	% Allocation
Net cumulative allocation	12,284.97	100.00
Holdings	12,834.67	104.47

IV. Outstanding Purchases and Loans:

None

V. Latest Financial Arrangements:

None

VI. Projected Obligations to Fund:

None

VII. Exchange Rate Arrangement:

Japan maintains a free floating exchange rate regime. 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. Article IV Consultation:

The 2010 Article IV consultation discussions were held during May 10–19, 2010; the Executive Board discussed the Staff Report (IMF Country Report No. 10/211 and concluded the consultation on July 14, 2010. The concluding statement, staff report, staff supplement, selected issues paper, and PIN were all published.

INTERNATIONAL MONETARY FUND

JAPAN

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION SUPPLEMENTARY INFORMATION

July 7, 2011

Approved by
Mahmood Pradhan and Tamim Bayoumi

Prepared by
Asia and Pacific Department

The following information has become available since the preparation of the staff report. This information does not alter the thrust of the staff appraisal.

Second Supplementary Budget: The cabinet endorsed a modest second supplementary budget of ¥2 trillion (0.4 percent of GDP) to fund additional earthquake reconstruction. The second budget does not rely on bond issuances as it will be funded by higher-than-expected FY2010 tax revenue and unused funds. About half of the spending will be used for transfers to local governments and income support for households in affected areas, with the remainder (¥0.8 trillion of contingency reserves) to be determined later. The government is expected to compile a larger, third supplementary budget later this year, which could exceed 2 percent of GDP and will likely include large infrastructure projects to rebuild affected regions.

Second Supplementary Budget
(In trillions of yen)

Contingency reserves for quake-related expenses	0.8
Transfers to local governments	0.5
Income support for households in affected areas	0.3
Compensation over Fukushima nuclear accident	0.1
Other	0.2
Total	2.0

Tax and Social Security Reforms: In late June, the joint government and ruling party panel on social security reform decided to double the consumption tax rate to 10 percent "by the mid-2010s" to fund social security, with any tax increase conditional on an economic recovery. The plan also expands health and pension spending combined with measures to raise the efficiency of social security spending. The proposal is expected to be discussed with opposition parties and reflected in a tax and social security reform bill by the end of FY2011 (end of March 2012).

Staff Views: Although modest in size, the second supplementary budget will provide support to disaster relief and reconstruction. Going forward, timely passage of a sizeable (third) supplementary budget focused on large infrastructure to rebuild the affected regions will be critical to help address downside risks and support the recovery. At the same time, new tax measures are needed to limit bond issuance and strengthen the commitment to fiscal reforms. On the tax and social security reform plan, staff welcomes the plan to double the consumption tax by the mid-2010s, but further increases in the consumption tax beyond FY2015 and caps on spending growth will be required to bring down the public debt ratio over the medium term.

INTERNATIONAL MONETARY FUND
Public Information Notice
EXTERNAL RELATIONS DEPARTMENT

Public Information Notice (PIN) No. 11/90
FOR IMMEDIATE RELEASE
July 19, 2011

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

IMF Executive Board Concludes 2011 Article IV Consultation with Japan

On July 13, 2011, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Japan.[1]

Background

The Great East Japan Earthquake and Tsunami on March 11, 2011 brought Japan's nascent recovery to a halt. It destroyed large parts of the northeastern coastal areas and damaged key infrastructure. The destruction far exceeded those of the 1995 Great Hanshin earthquake near the city of Kobe and is likely to influence economic developments for some time.

Four months after the disaster, Japan's economy shows signs of recovery**.** Recent data on household spending and production suggest a recovery in activity is underway, and supply chains are being restored faster than expected limiting spillovers to other countries. While the trade balance has weakened, the current account has remained in surplus given income derived from Japan's large net foreign asset position. As of end June, equity markets have recouped two-thirds of their losses following the earthquake and ten-year Japanese government bond (JGB) yields have been stable at around 1.1–1.2 percent. After concerted intervention in coordination with the G-7 in mid-March, the Japanese Yen to the US dollar rate has traded in a band of 80-84 until early July.

The Japanese economy is set to expand later this year. After a sharp contraction in the first half of this year, supply conditions are expected to normalize this summer and reconstruction spending to pick up steadily. The recovery is forecast to continue in 2012 as the resumption of exports lifts domestic demand and reconstruction spending

[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.

continues. As a result, GDP growth is expected to slow to -0.7 percent in 2011 before rising to 2.9 percent in 2012. Headline inflation is projected to be around zero percent in 2011 and 2012, while underlying inflation—excluding food and energy—will likely remain negative as a result of the still wide output gap. Uncertainty surrounding this outlook is large with the risks mainly on the downside. The key risks facing the recovery are from delays in restoring electricity capacity and a slow pick-up in private demand.

The fiscal costs of the earthquake could range between 2–4 percent of GDP spread over several years. Reconstruction is projected to increase the fiscal deficit in 2011 to 10½ percent of GDP and the net debt-to-GDP ratio to above 130 percent of GDP. In May, the government passed its first supplementary budget (0.8 percent of GDP) to repair damaged infrastructure, and the cabinet endorsed a second one in early July (0.4 percent of GDP) to continue reconstruction. An additional supplementary budget focused on revitalizing the region is expected later this year.

To support reconstruction and contain risks of deflation re-emerging, the Bank of Japan (BoJ) has further eased its accommodative policy stance by expanding the size of its asset purchase program to ¥10 trillion and through a new ¥1 trillion loan program to support lending activity of financial institutions in the affected regions. The BoJ also expanded its lending facility to "strengthen the foundations of economic growth" by ¥½ trillion to encourage asset-based lending by financial institutions. Financial sector policies helped maintain financial stability and ensured a smooth functioning of financial transactions in the affected regions.

Executive Board Assessment

Executive Directors commended the Japanese authorities for their swift policy response to stabilize markets following the devastating earthquake and tsunami. Directors noted that economic activity has recovered faster than expected, and the impact of the earthquake on global supply chains is expected to be short-lived. Nevertheless, the uncertainty surrounding the outlook is unusually large, with potential risks from delays in resolving power supply disruptions, and protracted weak demand and market sentiment. Against this backdrop, policy stimulus remains needed. At the same time, it is important to address longer-term issues through fiscal and broader structural reforms aimed at enhancing confidence in public finances and raising potential growth, while also minimizing risks of negative financial spillovers to other countries.

Directors stressed that the immediate priority for fiscal policy is to repair damaged infrastructure and facilitate a speedy recovery. They supported a sizeable, well-targeted supplementary budget that relies primarily on new tax measures, given limited room for further expenditure cuts and the need to limit government bond issuance. In this context, Directors welcomed the social security and tax reform plan, which includes a proposal to double the consumption tax rate by the mid-2010s. They noted that a more ambitious medium-term strategy, with a significant adjustment of the structural primary balance, is necessary to accelerate the pace of public debt reduction. This should comprise expenditure freezes and comprehensive tax reform, featuring a further gradual increase in consumption tax. Adopting a fiscal rule while allowing for some flexibility could help to enhance the credibility of the government's strategy in this regard.

Directors supported the broadening of the Bank of Japan (BoJ)'s toolkit under its comprehensive monetary easing policy to combat deflation. They welcomed the authorities' readiness to take additional easing measures as warranted. Should deflationary pressures emerge, consideration could be given to increasing purchases of longer-maturity public securities, and possibly private assets, under the BoJ's asset purchase program, while paying due regard to their implications for financial market stability and the BoJ's balance sheets. There is also some scope for further improving monetary policy communication to the public.

Directors agreed that the exchange rate should be determined by the markets, reflecting underlying economic fundamentals. They noted the need to avoid excessive volatility and disorderly movements in the exchange rate, which have adverse implications for economic and financial stability.

Directors commended the swift, decisive policy action to protect the financial sector from the initial shock of the earthquake. Noting potential risks of an economic slowdown and increased market volatility, Directors considered it important that banks maintain adequate capital and shift to more risk-based lending. They also encouraged a gradual withdrawal of special measures that had been put in place to facilitate loans to small- and medium-sized enterprises (SMEs) as conditions permit.

On spillovers, Directors welcomed the initiative. They remarked that such analysis needs to be further developed, and noted that, although policy spillovers from Japan on the global economy have been relatively limited in recent years, Japan remains an important contributor to regional growth and stability. Directors considered that fiscal consolidation would free up domestic savings and help reduce the risk of a rise in government bond yields that could lead to higher interest rates elsewhere. Timely implementation of the new growth strategy—with its focus on boosting employment, raising productivity through regional integration, and promoting startups and restructuring of SMEs—would help contain any negative short-term effects of fiscal consolidation measures. Directors commended the Japanese authorities for their strong commitment to international cooperation and development aid.

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 2011 Article IV Consultation with Japan is also available.

Japan: Selected Economic Indicators

	2007	2008	2009	2010	Proj. 2011	
Real GDP	2.4	-1.2	-6.3	4.0	-0.7	
Private consumption	1.6	-0.7	-1.9	1.8	-1.2	
Nonresidential investment	2.6	-1.4	-16.7	2.1	0.4	
Residential investment	-9.6	-8.0	-14.0	-6.3	4.5	
Public investment	-7.4	-8.6	10.4	-3.4	8.1	
Government consumption	1.5	0.5	3.0	2.2	1.6	
Stockbuilding (contribution to growth)	0.3	-0.2	-1.5	0.6	-0.1	
Net exports (contribution to growth)	1.1	0.2	-1.5	1.8	-0.7	
Exports of goods and services	8.4	1.6	-23.9	23.9	0.9	
Imports of goods and services	1.6	0.4	-15.3	9.8	7.7	
Inflation (period average)						
GDP deflator	-0.7	-1.0	-0.4	-2.1	-1.1	
CPI (SA) [1/]	0.1	1.4	-1.3	-0.7	0.1	
CPI (NSA) [1/]	0.1	1.4	-1.4	-0.7	0.1	
Unemployment rate (period average, percent)	3.9	4.0	5.1	5.1	4.9	
Current account balance						
Billions of U.S. dollars	211.0	157.1	141.8	195.9	144.7	
Percent of GDP	4.8	3.2	2.8	3.6	2.5	
General government balances (percent of GDP)						
Overall balance	-2.4	-4.2	-10.3	-9.6	-10.5	
Primary balance	-1.8	-3.3	-9.2	-8.5	-9.0	
Structural balance [2/]	-2.6	-3.7	-7.0	-7.7	-8.1	
Money and credit (12-month growth rate; end period)						
Base money	0.4	1.8	5.2	7.0	16.2	5/
M2 (period average)	2.1	1.8	3.1	2.3	2.7	5/
Bank lending [3/]	0.8	4.6	-0.9	-1.8	-0.5	5/
Exchange and interest rates (period average)						
Yen/dollar rate	117.8	103.4	93.6	87.8	80.6	6/
Yen/euro rate	161.4	152.1	130.3	116.5	114.5	6/
Real effective exchange rate [4/]	59.8	66.9	78.1	83.8	86.7	5/
3-month CD rate	0.5	0.5	0.3	0.3	0.3	6/
10-year government bond yield	1.7	1.5	1.4	1.2	1.1	6/

Sources: Global Insight, Nomura database and IMF staff estimates and projections.

1/ Annual growth rates are calculated from annual averages of monthly data.

2/ Excluding bank support.

3/ Data reflect the inclusion of foreign banks, foreign trusts banks and Shinkin banks in the monetary survey.

4/ Based on normalized unit labor costs; 2000 = 100.

5/ May 2011.

6/ June 24, 2011.