



OECD Economic Surveys JAPAN

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OVERVIEW



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Summary

Main findings

After two severe shocks – the 2008 global financial crisis and the 2011 Great East Japan Earthquake – Japan fell into recession for the third time in five years. The public debt ratio has risen steadily for two decades, to over 200% of GDP. Strong and protracted consolidation is therefore necessary to restore fiscal sustainability, which is Japan's paramount policy challenge. However, this will slow nominal GDP growth, making fiscal adjustment still more difficult. Hence, exiting deflation and boosting Japan's growth potential are key to addressing the fiscal predicament. In this light, the new government's resolve to revitalise the economy through a three-pronged strategy combining bold monetary policy, flexible fiscal policy and a growth strategy, is most encouraging.

Stopping and reversing the rise in the debt-to-GDP ratio is crucial. Stabilising the public debt ratio by 2020 may require, depending on the evolution of GDP and interest rates, an improvement of the primary fiscal balance from a deficit of 9% of GDP in 2012 to a surplus as high as 4% by 2020. Controlling expenditures, particularly for social security in the face of rapid population ageing, is key. Substantial tax increases will be needed as well, although this will also have a negative impact on growth. Given the size and duration of fiscal consolidation, Japan faces the risk of a marked rise in interest rates, threatening a banking system that is highly exposed to Japanese government debt.

Ending 15 years of deflation is a priority. The Bank of Japan's new commitment to a 2% inflation target and "quantitative and qualitative monetary easing" is welcome. The planned doubling of the monetary base, through expanded purchases of government bonds with longer maturities and private assets, is aimed at achieving the inflation target in about two years. Aggressive monetary easing will boost growth and inflation, in part through a weaker yen, although Japan is not targeting the exchange rate.

Reconstruction from the tragic 2011 disaster highlights some of the structural reform challenges facing by Japan. Reform of agriculture, an important sector in the Tohoku region, is a priority. The high level and distortionary nature of agriculture support imposes heavy burdens on consumers and taxpayers, undermines the dynamism of the farming sector, complicates Japan's participation in comprehensive bilateral and regional trade agreements, and entails environmental costs. The reduced role of nuclear power following the Fukushima accident calls for accelerating the development of renewable energy over the long run. This would be facilitated by fundamental reform of the electricity sector to reduce the negative impact of integrated, regional monopolies and the lack of an effective price mechanism.

Boosting labour force participation and productivity are essential. With the working-age population projected to fall by 40% by 2050, measures are needed to make the most of Japan's human resources, including women, older persons and youth. The tax and social security systems and inadequate childcare facilities create work disincentives for secondary earners, primarily women. For older workers, mandatory retirement at age 60 ends careers prematurely, especially as Japan has the highest life expectancy in the world. Educational reforms are needed to help boost productivity, beginning with more investment in pre-primary education. Japanese universities do not rank high in international comparison in many respects, including in their contribution to innovation.

Fiscal consolidation may adversely affect inequality and poverty. Both have risen in recent years, with Japan's relative poverty rate now the sixth highest in the OECD. The redistributive powers of the tax and benefit systems are weak in Japan, while the high share of low-paid, non-regular workers contributes to inequality. Labour market dualism is driven in part by higher employment protection for regular workers, encouraging firms to hire non-regular workers to enhance employment flexibility, and by the lower labour cost of non-regular workers. The reliance on private, after-school lessons, particularly in *juku*, perpetuates inequalities, as their high costs makes participation dependent on family income.

Key recommendations

The full implementation of the three-pronged strategy, which is aimed at exiting deflation and revitalising the Japanese economy, is of the utmost importance, particularly to restore fiscal sustainability, but also because of the ramifications for the world economy.

Restore fiscal sustainability

- Target a primary budget surplus large enough to stabilise the debt ratio by 2020 and set out a detailed and credible plan, including spending goals by category and a timetable for tax hikes, to reach the target.
- Implement the planned hike in the consumption tax rate in two stages to 10% by 2015, while maintaining a single rate to avoid the distortions associated with multiple rates.
- Reform social security programmes, including hiking the pension eligibility age, to contain spending growth.
- Rely primarily on the consumption tax but also on other indirect taxes, such as environment-related levies, as well as the broadening of personal and corporate income tax bases, to boost government revenue.
- Use the Council on Economic and Fiscal Policy as an expert body to guide and monitor fiscal consolidation.

End deflation through aggressive monetary policy aimed at the 2% inflation target

- Implement the “quantitative and qualitative monetary easing” to achieve the new 2% inflation target as early as possible.
- Maintain an expansionary policy stance until inflation has durably reached the 2% target level.

Following the Great East Japan Earthquake, step up efforts to revitalise Japan

Reform agriculture and promote Japan's integration in the world economy

- Shift from market price supports to decoupled payments, while phasing out supply control measures.
- Promote the consolidation of farmland to lower production costs.
- Liberalise border measures on agricultural goods as domestic reform advance, thereby facilitating participation by Japan in comprehensive regional and bilateral trade agreements, including the Trans-Pacific Partnership.

Promote green growth and restructure the electricity sector

- Offset the decline in nuclear power by expanding the role of renewable energy through green growth policies, including a strong and consistent price on carbon through a carbon tax in combination with an emissions trading system.
- Create a more competitive electricity sector by reducing the dominance of the ten regional monopolies through ownership unbundling of generation and transmission and expanding the wholesale market.
- Ensure the independence of the new Nuclear Regulatory Agency and create an independent regulator for the electricity sector to promote competition.

Promote growth by increasing labour force participation and raising productivity through education reforms

- Increase female participation by reforming the tax and social security systems, encouraging better work-life balance, increasing the availability of affordable childcare and breaking down labour market dualism.
- Encourage greater use of flexible employment and wage systems, in part by abolishing mandatory retirement at age 60, to lengthen the careers of older workers.
- Improve tertiary education by strengthening competition through increased transparency about performance and internationalisation of universities, while expanding their role in innovation.

Promote social cohesion by reducing income inequality and relative poverty

- Break down labour market dualism by upgrading training programmes and increasing the social insurance coverage of non-regular workers and reducing effective employment protection for regular workers.
- Enhance the redistributive power of tax and benefit systems by increasing the share of net benefits received by low-income persons, while providing training and incentives to leave assistance for those able to work.
- Introduce an earned income tax credit, while enhancing transparency about income.
- Reduce reliance on private, after-school lessons, particularly in *juku*, and ensure access to high-quality early childhood education and care for children from low-income families.

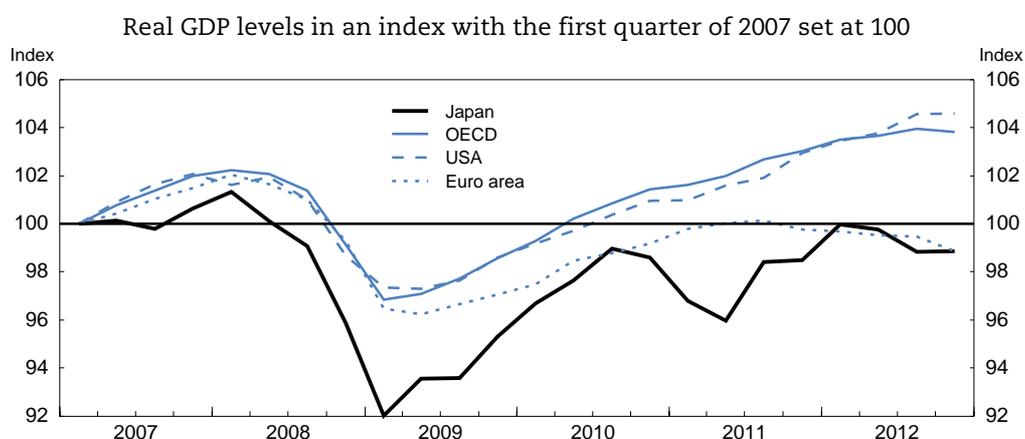
Table of Contents

The economic outlook	5
Monetary policies to support growth and end deflation	11
The Great East Japan Earthquake: From tragedy to economic revitalisation	18
Other policies to promote growth: Raising labour force participation and improving education	25
Restoring Japan's fiscal sustainability	29
Promoting social cohesion	36
Bibliography	42

The economic outlook

The 2011 Great East Japan Earthquake – the worst disaster in Japan's post-war history – killed around 20 000 people and caused enormous physical damage. Japan's initially strong recovery from the earthquake and tsunami stalled in mid-2012, leaving output 2½ per cent below the peak recorded in 2008 prior to the global economic and financial crisis (Figure 1). Japan has experienced three recessions in five years. The key challenges are to achieve sustained growth and fiscal sustainability following these two shocks.

Figure 1. Japan has faced two major shocks since 2008



Source: OECD Economic Outlook Database.

More than two decades after the collapse of the 1980s asset price bubble, Japan remains stuck in deflation, with asset and consumer prices continuing to decline despite a virtually zero policy interest rate and the central bank's quantitative easing (QE) measures. Sluggish output growth and rising public spending, due in part to population ageing, have pushed gross public debt above 200% of GDP, raising serious concerns about fiscal sustainability. Eliminating the primary budget deficit – estimated at 9% of GDP in 2012 (on a general government basis) – implies large-scale fiscal consolidation that will hold back nominal GDP growth, making it difficult to stabilise the public debt ratio. Meanwhile, structural problems, including rapid population ageing and weak integration in the world economy, reduce growth potential. Political instability, with six prime ministers since 2008, has hindered economic policy making.

The new government has pledged a three-pronged strategy of bold monetary policy, flexible fiscal policy and a growth strategy that encourages private-sector investment to exit from deflation and revitalise Japan. The government has promised that it will spell out a new growth strategy by mid-2013, followed by a new medium-term fiscal strategy. The new growth strategy should include bold reforms to substantially increase potential growth, which is currently about ¾ per cent per annum according to OECD estimates.

Resolving Japan's debt problem requires achieving robust nominal output growth, through gains in productivity and sustained inflation, thereby reversing the decline in nominal GDP, which has fallen at a ¾ per cent annual rate during the past decade. Given the complexity and magnitude of these problems, as well as the growing risk that they pose to the stability of both Japan and the world economy, it is time to reassess policy approaches. Fiscal consolidation remains a priority, especially following the fiscal stimulus in early 2013. The burden for sustaining growth therefore falls on monetary and structural policies. The new "quantitative and qualitative monetary easing" should be implemented to meet the new 2% price stability target, although this may not be enough. Pushing ahead with structural reform on a broad front is equally imperative to achieve sustained growth.

The banking sector also faces risks. With government bonds accounting for a fifth of its assets, a rise in interest rates would hit bank balance sheets. The International Monetary Fund (IMF) concluded that major banks could handle “moderately large shocks to government bond prices”, although they could pose “sizable risks” to regional banks (IMF, 2012a). The BoJ has estimated that a 2 percentage-point rise in interest rates in line with inflation would result in capital losses equivalent to 2.5% of GDP for banks, “inducing banks to tighten their lending attitudes to restore their capital adequacy ratios” (BoJ, 2012).

The 2011 tragedy highlights the importance of enhancing Japan’s growth prospects through structural policies. In particular, the reconstruction of farming areas in the Tohoku region that was devastated by the earthquake and tsunami should serve as a model for the nation (Reconstruction Headquarters, 2011), while also facilitating Japan’s participation in bilateral and regional trade agreements. Similarly, the Fukushima nuclear accident and the reduced reliance on nuclear power make it even more important to accelerate the transition towards green growth by developing renewable energy resources, while reforming the electricity power system.

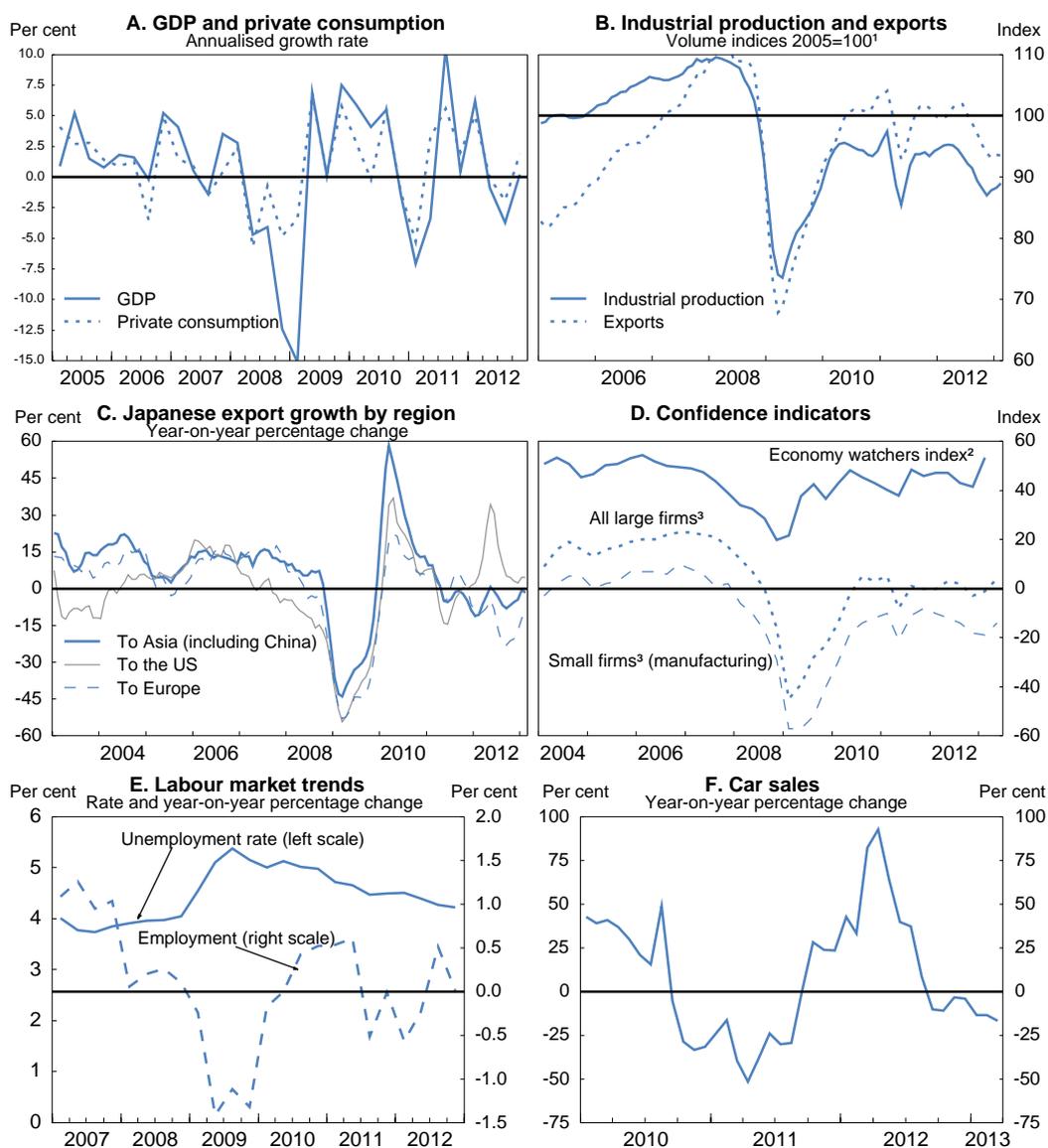
A range of other structural policies, notably boosting labour force participation and improving education, are also priorities to promote growth and address the fiscal imbalance. At the same time, the authorities should take into account the effect of fiscal consolidation on social cohesion in the context of rising income inequality and relative poverty. Policy reforms, particularly to break down labour market dualism (see the chapter on labour market reforms in the 2011 *OECD Economic Survey of Japan*) and to address problems in the education system (see the education chapter in the 2011 *Survey*), are a priority to promote inclusive growth and should be accompanied by measures to improve outcomes on a range of well-being indicators.

A policy-driven expansion

The decline in output in the second and third quarters of 2012 (Figure 2) was primarily due to weak external conditions. Exports fell sharply (Panel B), reflecting Japan’s concentration in capital and intermediate goods and in discretionary consumer products (Thorbecke, 2012). In addition, exports suffered from the strong yen, which in mid-2012 was 45% above its 2007 level in nominal effective terms and 24% in real terms (Figure 3), reflecting capital inflows to Japan, a “safe haven” during global financial turbulence. According to the IMF (IMF, 2012b), the yen was “moderately overvalued” by up to 10% in mid-2012. Moreover, the yen appreciated by 82% over the same period relative to the Korean won, which is crucial given the competition between Japanese and Korean products in world markets. Japanese exports to China, which account for a quarter of Japan’s total exports, and other Asian countries fell, reflecting slower growth and political tension with China (Panel C). Finally, the intensification of the euro area crisis last year contributed to a double-digit fall in Japanese exports to the European Union.

The deteriorating global environment affected domestic demand, which had been spurred by reconstruction spending following the 2011 disaster. In 2012, an estimated 1½ per cent of GDP was spent on reconstruction. However, falling exports reduced industrial production, which is now nearly one-fifth below its 2008 peak (Panel B), in turn weakening business investment. Falling confidence, particularly among small firms, also held back investment (Panel D). Despite weakness in the business sector, employment increased in the second half of 2012 (Panel E), sustaining private consumption, which was also boosted by government subsidies for the purchase of environment-friendly vehicles. Indeed, car sales surged by 59% in the first half of 2012, accounting for about half of the rise in private consumption, before slowing in the second half (Panel F). Against this backdrop, the unemployment rate in early 2013 is around 4¼ per cent, compared to its 2007 trough of 3.7%, while, deflation continues (Figure 4). The short-lived expansions following the two shocks left Japan with an output gap estimated at 1% of GDP at the end of 2012.

Figure 2. Recent macroeconomic developments in Japan



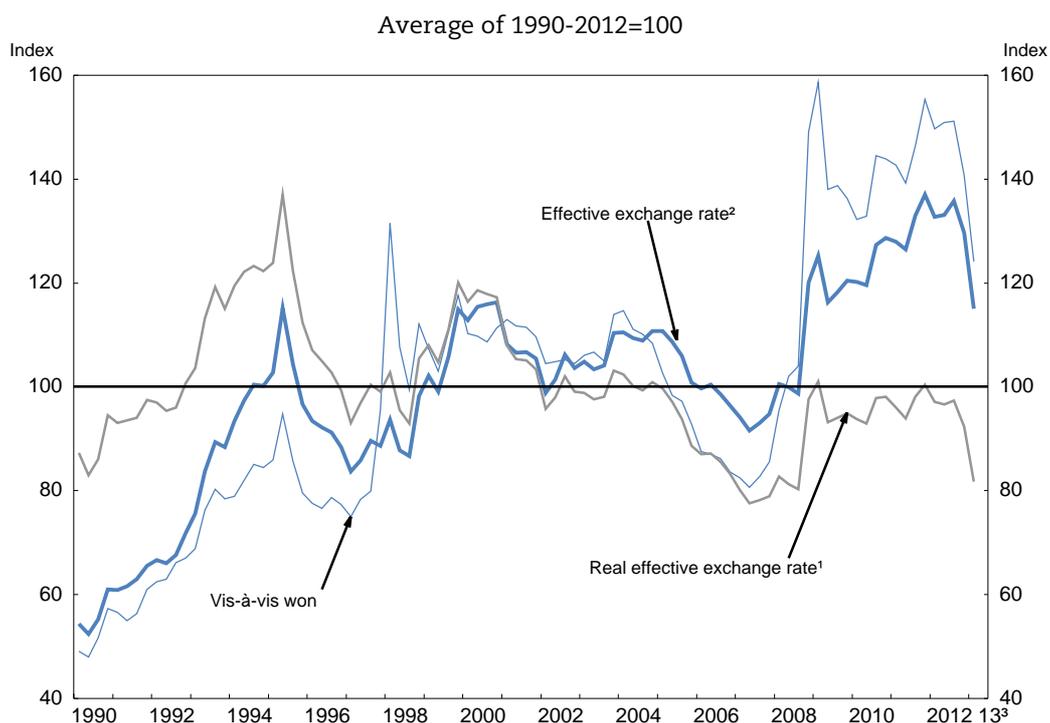
1. Data are three-month moving averages of seasonally-adjusted industrial production and exports.
2. A survey of workers, such as taxi drivers and shop clerks, whose jobs are sensitive to economic conditions. The index ranges from 100 (better) to zero (worse), with 50 indicating no change.
3. Diffusion index of "favourable" minus "unfavourable" conditions.

Source: *OECD Economic Outlook Database*, Ministry of Economy, Trade and Industry, Bank of Japan and Cabinet Office.

Growth is projected to resume during 2013-14, although there are large downside risks

Exports stabilised in late 2012, leading to faster output growth in the first quarter of 2013, driven by a rebound in industrial production. As exports regain momentum, sustained by the projected pick-up in world trade growth, so will investment by Japan's cash-rich business sector. Recent developments have led to an upward revision in Japan's outlook. *First*, the new government announced a 10.3 trillion yen package (2.2% of GDP) in January 2013 (see below). *Second*, the yen has depreciated by 15% against the dollar since mid-November, when national elections were announced. *Third*, equity prices have risen by about 30% over the same period.

Figure 3. The yen remains well above its average since 1990 in nominal, but not real, terms



1. Deflated based on consumer price indices.
2. Trade-weighted, vis-à-vis 49 trading partners.
3. The rate shown for the first quarter of 2013 is the average of January and February.

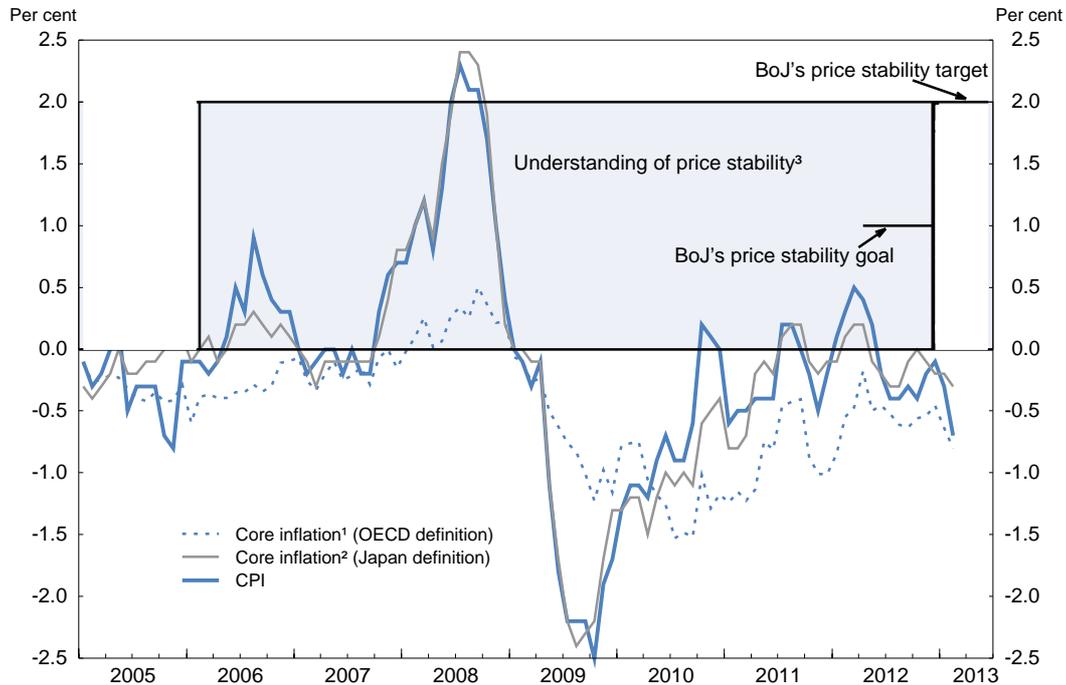
Source: OECD Economic Outlook Database and Bank of Japan.

How to read this figure. An increase in the line denotes a stronger currency (an exchange rate appreciation). The effective exchange rate is the average of 49 countries with which Japan trades, as opposed to bilateral exchange rates between two countries, such as the exchange rate of the yen against the Korean won shown in the figure. Real effective exchange rates adjust for inflation differences between Japan and its trading partners. A rise in the real effective exchange rate implies that Japan loses price competitiveness.

With these positive factors, output is now projected to grow by around 1½ per cent in both 2013 and 2014, despite the waning contribution from public reconstruction spending and the expected fiscal consolidation in 2014 (Table 1). Domestic demand will be affected by the planned hike in the consumption tax rate, but the impact is likely to be partially offset by a fall in the household saving ratio. With the output gap expected to close, inflation is projected to move into positive territory during 2013.

Figure 4. Deflation continues

Year-on-year percentage change



1. Excludes food and energy.
2. Excludes only fresh food.
3. Of the Bank of Japan's Policy Board members.

Source: Bank of Japan and *OECD Economic Outlook Database*.

While the outlook has improved, many downside risks, domestic and external, overshadow this projection. The key risk is that the three-pronged strategy will not be fully implemented. In particular, with very high public debt, any decision to delay fiscal consolidation could result in a run-up in long-term interest rates, with negative implications for the financial sector, fiscal sustainability and growth. Indeed, a 100 basis-point rise in interest rates would boost the budget deficit by about ½ per cent of GDP over five years (Cabinet Office, 2010). In addition, the emergence of a temporary current account deficit in late 2012 has raised concerns that over the longer run Japan may become dependent on foreign investors to finance its budget deficit. However, a current account surplus of about 1½ per cent of GDP is projected in 2014. Japan's energy supply also remains a question mark, as 48 nuclear reactors (out of a total of 50) have suspended operations. On the external side, there is uncertainty about developments in the euro area, which had contributed to the yen's strength, and in China. Looking beyond 2014, fiscal consolidation will affect growth, given that, on some estimates, the multiplier on tax increases may be around -0.5 (Cabinet Office, 2010), although there is considerable uncertainty attached to such estimates. Moreover, the impact may be partially mitigated by other factors, such as improved confidence and an expansionary monetary stance (Blöchliger *et al.*, 2012).

Table 1. Short-term economic projections¹

	2010	2011	2012	2013	2014
Demand and output (volumes)					
GDP	4.7	-0.6	2.0	1.4	1.4
Consumption					
Private	2.8	0.5	2.4	1.2	1.2
Government	1.9	1.5	2.7	1.1	-0.4
Gross fixed investment	-0.2	1.1	4.5	3.2	0.4
Public ²	0.1	-6.9	12.5	2.1	-15.7
Residential	-4.8	5.5	2.9	11.3	-2.3
Business	0.7	3.3	2.0	1.7	6.3
Final domestic demand	2.0	0.8	2.8	1.6	0.7
Stockbuilding ³	1.0	-0.5	0.0	-0.2	0.1
Total domestic demand	2.9	0.3	2.9	1.4	0.8
Exports of goods and services	24.4	-0.4	-0.3	-0.3	8.5
Imports of goods and services	11.1	5.9	5.3	0.3	4.1
Net exports ³	1.7	-0.9	-0.9	-0.1	0.6
Inflation and capacity utilisation					
GDP deflator	-2.2	-1.9	-0.9	-0.7	1.1 ⁴
CPI	-0.7	-0.3	0.0	-0.1	1.8 ⁴
Core CPI ⁵	-1.2	-0.9	-0.5	-0.5	1.7 ⁴
Unemployment rate	5.0	4.6	4.3	4.2	4.1
Output gap	-0.5	-1.5	-0.2	0.4	1.1
<i>Memorandum items⁶</i>					
World trade growth	12.8	6.0	2.7	3.6	6.4
Net government lending ⁷	-9.5	-9.6	-10.2	-10.2	-7.7
Net primary balance ⁷	-8.8	-8.8	-9.3	-9.2	-6.4
Gross debt (% of GDP)	193.3	210.6	219.1	228.3	232.6
Net debt (% of GDP)	113.1	127.4	135.9	145.1	149.4
Household saving ratio (%)	2.0	2.3	0.8	1.0	0.6
Current account (% of GDP)	3.7	2.0	1.0	1.0	1.6

1. Demand and output and inflation and capacity utilisation indicators are historical data for 2010 to 2012. Projections for 2013-2014 are based on the 18 March exchange rate of 95.3 yen per dollar.
2. Including public corporations.
3. Contribution to GDP growth.
4. Including the planned hike in the consumption tax rate from 5% to 8% in April 2014. Excluding the tax hike, the CPI and core CPI are projected to rise at an annual rate of about ½ per cent in the final quarter of 2014.
5. The core CPI is the OECD definition, which excludes both food and energy.
6. OECD estimates for 2012, except for the current account.
7. Per cent of GDP, excluding one-off factors.

Source: OECD Analytical Database and OECD estimates and projections.

Monetary policies to support growth and end deflation

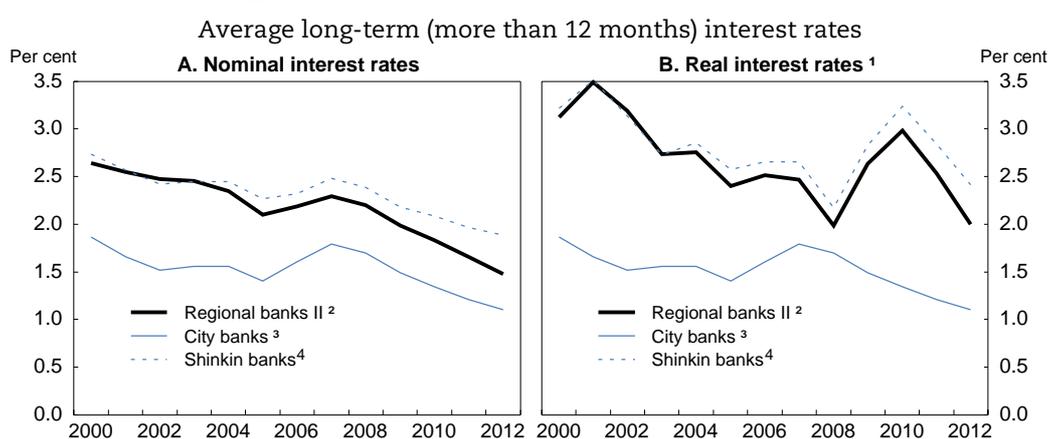
Deflation lowers nominal GDP, thereby boosting the debt ratio and threatening fiscal sustainability. The GDP deflator has dropped by about 13% since 2001 and the monthly core consumer price index (CPI) registered year-on-year growth in only 12 months over that period. If inflation had been even 1% since 2001, the annual average nominal GDP growth rate would have been 1¾ per cent over the decade and the public debt ratio would have been about 160% of GDP rather than more than 200%, according to this mechanical calculation. Of course, actual figures would depend on a number of factors. The falling price level has other undesirable effects, such as keeping the real interest rate significantly positive at a time when ample slack would call for negative real rates. Indeed, a Taylor rule calculation by the OECD suggested that a policy interest rate of around minus 4% would have been appropriate in 2012. Given the deleterious effects of deflation, achieving price stability should be a top priority.

Past measures by the Bank of Japan

The BoJ has taken a number of steps to that end, in addition to gradually cutting the policy interest rate to “virtually zero” (0 to 0.1%) by October 2010 (Table 2). In 2009, it introduced a “funds-supplying operation” that lends money to banks (against collateral) for three months at the policy interest rate. In October 2010, the BoJ launched an “asset purchase programme”, focused primarily on government securities but also including private assets, such as corporate bonds. The size of this programme has been steadily ratcheted up. In December 2012, the target size of purchases by the end of 2013 was boosted to 101 trillion yen (21% of GDP), including the funds-supplying operation.

The unconventional QE measures pursued since 2001 likely contributed to the decline in long-term bank lending rates (Figure 5), which fell even during the longest expansion in Japan's post-war history (2002-08). A recent study found that the BoJ's policy had a positive effect on economic activity (Berkmen, 2012), aided by the improvement in the banking sector and corporate deleveraging. However, going forward, it is very difficult to quantify the exact impact of additional unconventional measures.

Figure 5. Interest rates on bank loans have fallen



1. Nominal interest rate less current core inflation (OECD definition).
2. A total of 41 banks, serving primarily local corporations, individuals and public-sector bodies.
3. The six major national banks.
4. A total of 270 co-operative regional financial institutions, serving primarily SMEs and local residents.

Source: Bank of Japan.

Table 2. A chronology of major monetary policy measures in Japan

2009	December	The BoJ introduces a new "funds-supplying operation", with the total amount of loans set initially at 10 trillion yen (2% of GDP).
	December	The BoJ clarifies its "understanding of medium to long-term price stability", initially set at 0 to 2% in 2006, by stating that the understanding is inflation "in a positive range of 2% or lower, and the midpoints of most Policy Board members' understanding are around 1%".
2010	March	The amount of the funds-supplying operation is doubled to 20 trillion yen (4% of GDP).
	June	The BoJ introduces a new "fund-provisioning measure", amounting to 3 trillion yen, aimed at encouraging banks to lend to growth sectors.
	August	The amount of the funds-supplying operation is raised to 30 trillion yen (6% of GDP).
	October	The BoJ introduces the "comprehensive monetary easing", in which it: <ul style="list-style-type: none"> <i>i)</i> Reduces the policy rate from 0.1% to between 0 and 0.1%. <i>ii)</i> Pledges to "maintain the virtually zero interest rate policy until the Bank judges, on the basis of the understanding of medium to long-term price stability, that price stability is in sight". <i>iii)</i> Establishes an "asset purchase programme", which includes the 30 trillion yen funds-supplying operation and 5 trillion yen (1% of GDP) of assets purchases, divided between Japanese government securities (3.5 trillion yen) and private assets (1.5 trillion yen).
2011	March	The asset purchase programme is expanded to 40 trillion yen (8% of GDP).
	June	The amount of the fund-provisioning measure for growth industries is raised to 3.5 trillion yen (0.7% of GDP).
	August	The asset purchase programme is expanded to 50 trillion yen (10% of GDP).
2012	October	The asset purchase programme is expanded to 55 trillion yen (11% of GDP).
	February	The asset purchase programme is expanded to 65 trillion yen (14% of GDP).
	February	The BoJ introduces a "price stability goal in the medium to long term" of a positive range of 2% or lower, while setting a goal of 1% "for the time being".
	March	The amount of the fund-provisioning measure for growth industries is raised to 5.5 trillion yen (1.1% of GDP).
	April	The asset purchase programme is expanded to 70 trillion yen (15% of GDP).
	September	The asset purchase programme is expanded to 80 trillion yen (17% of GDP).
	October	The asset purchase programme is expanded to 91 trillion yen (19% of GDP).
	October	The BoJ announces plans to establish a new fund-providing measure to stimulate bank lending without setting an upper limit to the total amount of funds supplied.
	October	The government and the BoJ release a joint statement of the "measures aimed at overcoming deflation".
	December	The asset purchase programme is expanded to 101 trillion yen (21% of GDP).
2013	January	The BoJ sets a 2% price stability target that it will try to reach "at the earliest possible time". The BoJ adopts "open-ended" easing and boosts the target for purchases to 111 trillion yen (23% of GDP) in 2014.
	January	The government and the BoJ release a joint statement on overcoming deflation and achieving sustainable economic growth.
	March	Haruhiko Kuroda is approved as BoJ governor, with Kikuo Iwata and Hiroshi Nakaso as vice governors.
	April	The BoJ launches "quantitative and qualitative monetary easing".

Source: Bank of Japan.

With credit growth still weak, the BoJ introduced the Growth-Supporting Funding Facility in June 2010 to directly encourage banks to lend to firms by providing long-term funding at low costs. The

scheme was aimed at firms in growth industries, such as the health and environment sectors. It provides financial institutions with one-year loans that can be rolled over up to three times. The total amount of funds was expanded from 3 trillion yen (1.2% of outstanding private bank loans to non-financial private firms) to 5.5 trillion yen. Nearly 3.5 trillion yen has been disbursed thus far. Major banks' lending has recently begun to increase year-on-year, though this largely reflects a pick-up in overseas loans. As with other non-conventional measures, the scheme could risk postponing needed restructuring in the banking and business sector by supporting non-viable companies. In addition, the decision to target specific sectors gives the scheme an industrial-policy orientation, raising concerns about resource misallocation and fairness.

In 2012, the BoJ announced the introduction of the Stimulating Bank Lending Facility to provide unlimited long-term funds at 0.1% to financial institutions, beginning in June 2013. If banks' high financing costs or limited access to funds are indeed the main obstacle to credit expansion, such facilities can be effective in stimulating credit. This could be the case for banks with weak balance sheets. However, Japanese banks generally have strong balance sheets and lending attitudes of financial institutions are accommodative, even for small firms, according to the March 2013 Tankan Survey.

Directions for monetary policy

Core CPI is currently falling at a rate of about $\frac{3}{4}$ per cent (year-on-year), faster than its average of around $\frac{1}{2}$ per cent average over the past decade. In January 2013, the BoJ replaced its 1% price stability goal with a 2% price stability target, and the central bank and the government will regularly review the progress in achieving the target. The increase in the inflation target to 2%, the mid-point of most target zones of inflation-targeting central banks in the OECD, is welcome (see the macroeconomic chapter in the 2011 *OECD Economic Survey of Japan*). The higher target, if achieved, would help reduce the towering public debt ratio and reduce the risk of falling back into deflation. In a January 2013 joint statement, the government and the BoJ agreed to strengthen policy co-ordination to “overcome deflation early and achieve sustainable economic growth with price stability”.

- The BoJ stated that it will “pursue monetary easing and aim to achieve this target at the earliest possible time”, although it believes that achieving price stability depends on “efforts by a wide range of entities”.
- The government promised to “not only flexibly manage macroeconomic policy but also [to] formulate measures for strengthening competitiveness and potential growth”.

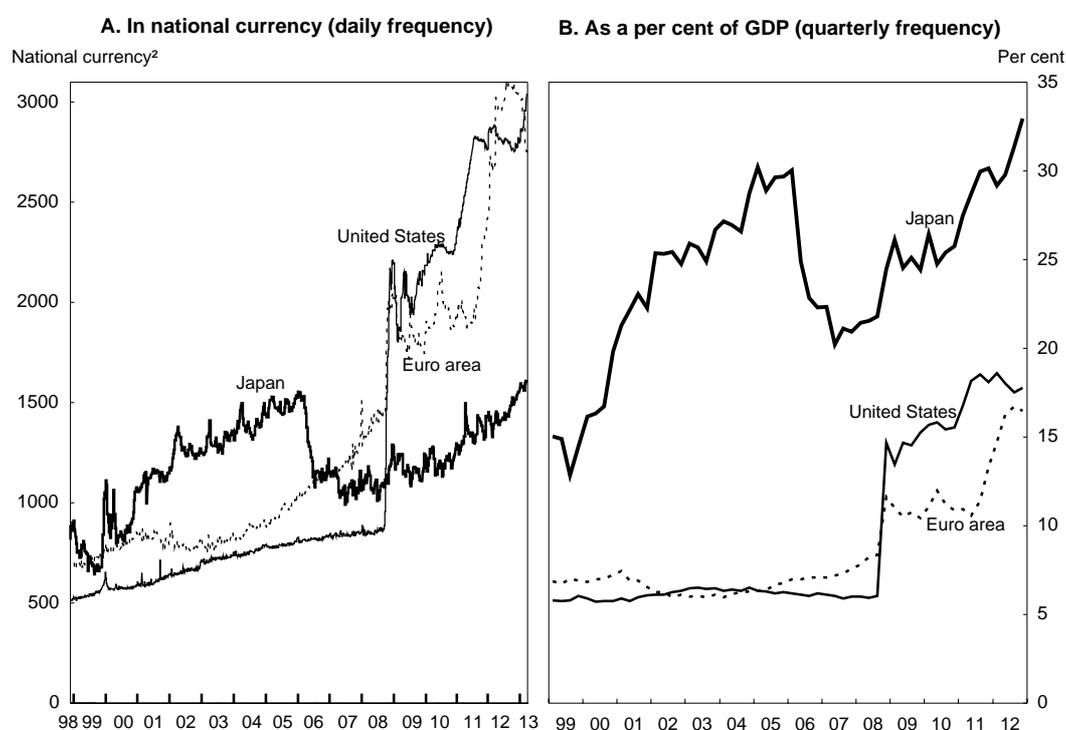
While this is certainly imperative, the central bank needs to achieve positive inflation even in the absence of higher potential growth, which may take time to achieve. Inflation is ultimately determined by monetary policy, allowing for changes in velocity and price stickiness, even if Japan's working-age population and potential growth are falling.

The BoJ pioneered the use of QE between 2001 and 2006, expanding the size of its balance sheet and helping achieve positive inflation by 2007 (Figure 6). Despite the persistence of deflation since 2009, the BoJ's response to the 2008 crisis was relatively small. As a share of GDP, the BoJ's balance sheet rose by 11.5 percentage points in the period to end-2012, the lowest of the four major central banks (Table 3), although the size of central bank balance sheets does not fully capture the current degree of monetary accommodation. Given that Japan is the only country to suffer sustained deflation, the scale of QE in Japan should have been relatively large. While the balance sheet as a share of GDP is relatively high, this reflects the fact that the Japanese public likes to hold banknotes. Indeed, banknotes in circulation amount to 17% of GDP in Japan, versus less than 7% in the United States and the United Kingdom (Standard & Poor's, 2012). The BoJ should also continue to focus on improving the transmission of monetary policy, in part by effectively implementing the lending facilities.

The impact of QE has been limited thus far by its focus on government bonds with relatively short maturities. Indeed, in the BoJ's asset purchase programme, government bonds (with one to three years remaining to maturity) and treasury bills accounted for 90% of the 76.1 trillion in assets to be purchased by the end of 2013 (Table 4). In addition, the share of private assets – commercial paper, corporate bonds, exchange-traded funds (ETFs) and real estate investment funds (J-REITS) – was only 10%. Central bank purchases of assets that are imperfect substitutes for the asset supplied (central bank reserves) may have a larger impact, by strengthening the “portfolio rebalancing effect” and by reducing long-term and other risk premia. This implies that quantitative measures may be more potent if a ten-year government

bond is purchased rather than a three-month government bill and still more potent if a ten-year corporate bond is purchased.

Figure 6. A long term comparison of central bank balance sheets¹



1. Defined as central bank liabilities.

2. Billions of dollars and euro for the United States and the euro area, respectively, 100 billion yen for Japan.

Source: Thompson Financial.

Table 3. An international comparison of central bank balance sheets

	Size of balance sheet		
	August 2008	December 2012	
A. Nominal amounts			Per cent increase
Bank of Japan (trillion ¥)	109.9	158.4	44.1
Bank of England (billion £)	93.2	410.4	340.3
Federal Reserve (billion \$)	870.7	2854.1	227.8
European Central Bank (billion€)	1 449.1	3 018.2	108.3
B. As a share of GDP			Percentage-point increase
Bank of Japan	22.1	33.6	11.5
Bank of England	6.5	26.0	19.5
Federal Reserve	6.0	18.0	12.0
European Central Bank	15.7	31.9	16.2

Source: Thompson Financial and OECD calculations.

Table 4. The composition of the Bank of Japan's asset purchase programme
In trillion yen and per cent

	Initial amount ¹	Per cent of total	Actual purchases ²	Per cent of total	Target purchase ³	Per cent of total
Asset purchases						
Government debt subtotal	3.5	70.0	31.1	82.7	68.5	90.0
Government bonds ⁴	1.5	30.0	22.1	58.8	44.0	57.8
Treasury discount bills	2.0	40.0	9.0	23.9	24.5	32.2
Private-sector assets subtotal	1.5	30.0	6.5	17.3	7.6	10.0
Commercial paper	0.5	10.0	1.9	5.1	2.2	2.9
Corporate bonds	0.5	10.0	3.0	8.0	3.2	4.2
Exchange-traded funds	0.45	9.0	1.5	4.0	2.1	2.8
Real estate investment trust	0.05	1.0	0.1	0.3	0.1	0.2
Sub-total	5.0	100.0	37.6	100.0	76.1	100.0
Funds-supplying operation	30.0		27.0		25.0	
Total	35.0		64.6		101.1	

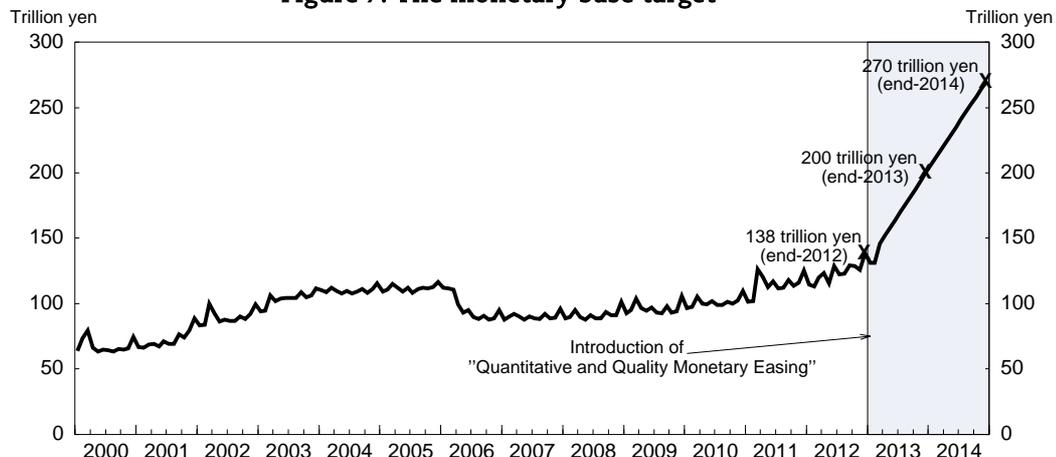
1. Announced in October 2010.
2. As of November 2012.
3. Target for the end of 2013.
4. With one to three years of remaining maturity.

Source: Bank of Japan.

The Bank of Japan's new monetary policy framework

In order to increase the scale and improve the effectiveness of QE, the BoJ announced a historic change in the monetary policy framework in April 2013 to achieve the 2% inflation target over a time horizon of about two years. The new approach, “quantitative and qualitative monetary easing”, focuses on the size of the monetary base (currency and *commercial banks' reserves* with the *central bank*), which it plans to double from 138 trillion yen (28% of GDP) at the end of 2012 to 270 trillion yen at the end of 2014 (Figure 7). Such a target requires nearly doubling purchases of government bonds to 7.5 trillion yen (1.5% of GDP) per month. The scope for QE will be expanded by the temporary suspension of the “banknote principle”, which limited the central bank's holdings of long-term bonds to the outstanding balance of banknotes issued. The BoJ also plans to enhance its dialogue with market participants to smoothly achieve the doubling of the monetary base.

Figure 7. The monetary base target



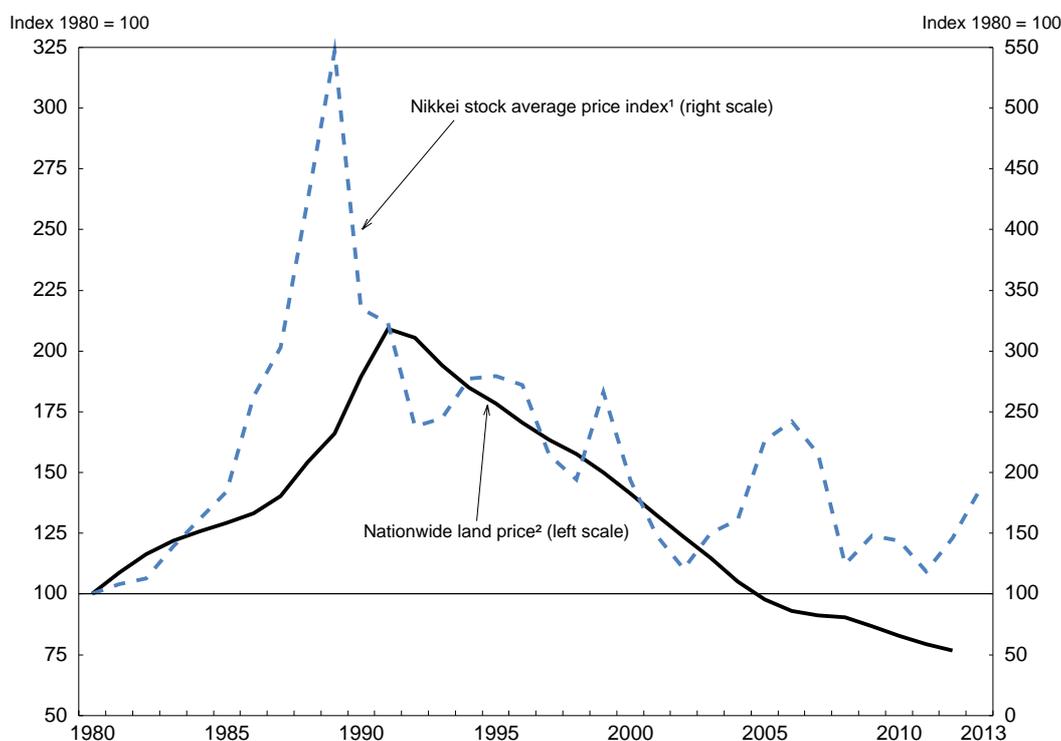
Source: Bank of Japan.

In addition to increasing the scale of QE, the new policy framework aims at enhancing its effectiveness by changing the composition of the assets purchased:

- The BoJ will purchase government bonds of all maturities. The objective is to increase the average remaining maturity of its government bond holdings from slightly less than three years to about seven years, matching the average maturity of the total stock of outstanding government bonds. Such an approach will further decrease interest rates across the yield curve.
- The BoJ will also increase purchases of private assets in order to reduce risk premia. Purchases of ETFs and J-REITs will boost the Banks' holdings of these assets at an annual pace of 1 trillion yen and 30 billion yen, respectively.

Moreover, the BoJ has promised to maintain the policy as “as long as it is necessary for maintaining the [inflation] target in a stable manner”. Such a commitment would help avoid premature monetary tightening, as occurred in 2006 when the central bank ended QE while both headline and core inflation were negative. With two interest hikes by early 2007, core inflation peaked at only 0.4% in mid-2008, leaving Japan vulnerable to a return to deflation in the wake of the global financial crisis.

Figure 8. Japanese asset prices have been on a downward trend during the past two decades



1. The Nikkei stock price index averages the price of 225 individual stocks listed on the Tokyo Stock Exchange.
2. Land prices on 1 January of each year for all uses (residential, commercial and industrial).

Source: Ministry of Land, Infrastructure, Transport and Tourism and Nikkei Indexes.

In principle, if non-traditional policies remain in place too long, inflation might overshoot. Moreover, it could slow restructuring by extending the lives of non-viable enterprises and fuelling asset price bubbles. Thus far, this does not seem to have been the case in Japan. Although Japan has had a virtually zero policy rate since 1999 (with the exception of 2006-08), the long-run downward trend in asset prices has continued (Figure 8). Nationwide land prices have fallen for 21 consecutive years, including a 3.3% drop in 2012, with all sub-categories (commercial, residential and industrial) recording declines.

Moreover, the stock price index is less than a third of its 1989 peak and well below its level at the onset of the 2008 global financial crisis, despite its rebound in recent months. As for restructuring, bankruptcy rates are high. During the first half of 2012, a period of strong output growth, around 11 500 firms (with debts of more than 10 million yen) faced legal liquidation, compared to around 8 500 during 2001, a recession year. Long-term lending rates for small firms are still as high as 2½ per cent, although relatively low in a historical perspective (Figure 5).

Box 1. Summary of monetary policy recommendations

- Implement “quantitative and qualitative monetary easing” to achieve the new 2% inflation target as early as possible.
- Maintain an expansionary monetary policy stance until inflation has durably reached the 2% target level.

The Great East Japan Earthquake: From tragedy to economic revitalisation

The March 2011 earthquake, the fifth strongest in recorded world history, inflicted an enormous human toll and was the costliest disaster in Japan's post-war history. The estimated 3½ per cent of GDP in property damage, concentrated in the Tohoku region, does not include the costs of the accident at the Fukushima nuclear plant triggered by the tsunami, leading to the suspension of operations at all of Japan's nuclear power plants, which had supplied nearly a third of electricity. The disaster caused a major economic contraction in Japan that spilled over to the world economy by disrupting global supply chains. Following the disaster, the government launched a ten-year reconstruction programme, focusing on the prefectures of Fukushima, Miyagi and Iwate. Reconstruction spending of around 17 trillion yen (3.6% of GDP) has already been approved, close to the 19 trillion yen envisaged for FY 2011-15. It is estimated that more than 10 trillion yen thereof was spent in 2011-12. The new government expanded the five-year spending target to 25 trillion yen, with some of the extra spending in the January 2013 fiscal package and the FY 2013 budget.

The direct impact of the reconstruction on the national economy is limited by the small size of the three prefectures, which together account for 4% of Japan's GDP and population. Rather than just rebuilding devastated areas, reconstruction should aim to increase the dynamism of the national economy and boost potential growth towards the 2% target in the *Strategy to Revitalise Japan*. As the government stated, "The reconstruction of the disaster-afflicted areas plays a leading role in the revitalisation of a vibrant Japan, and the disaster areas cannot be truly rebuilt unless Japan's whole economy is revitalised" (Reconstruction Headquarters, 2011).

Two issues in the reconstruction of the Tohoku region stand out:

- Agriculture's share of the labour force in Tohoku is double the national average. The Basic Guidelines for Reconstruction call for reconstruction to make agriculture in Tohoku "serve as a model for the nation".
- The Fukushima nuclear accident revealed weaknesses in the electricity sector. Moreover, the plan to reduce the role of nuclear power creates a void that will need to be filled by alternative energy sources, including renewables. The Tohoku area has significant potential in renewable energy.

Reforming agriculture and promoting Japan's integration in the world economy

Although Japan's agricultural sector is small, it is one of the major topics of discussion concerning Japan's participation in comprehensive international trade agreements. The 2011 *Basic Policy and Action Plan for Revitalising the Food, Agriculture, Forestry and Fisheries Industries* announced by the previous government aims at bolstering the competitiveness of farmers over the next five years to create an agricultural sector compatible with high-level economic partnership agreements (EPAs). In March 2013, the new government decided to take part in the negotiations for the Trans-Pacific Partnership (TPP) Agreement, while promising to take every effort to defend the interests of Japanese agriculture.

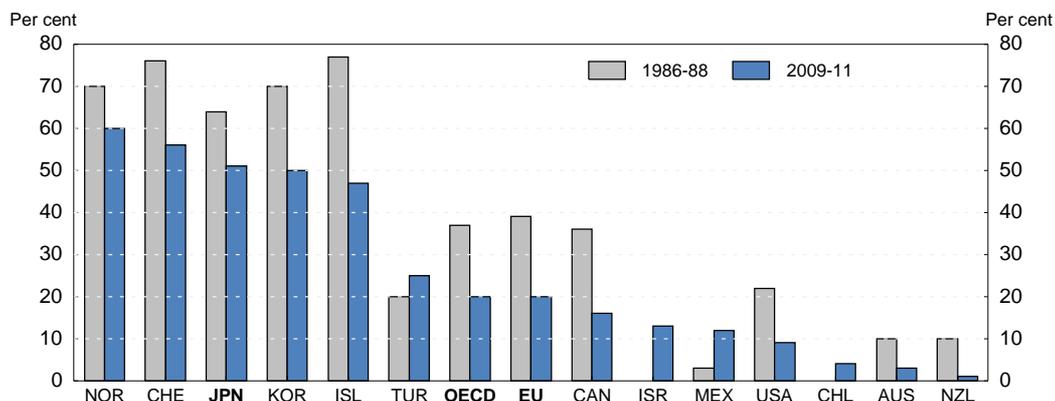
During the past half century, agriculture's share of GDP dropped from 9% to 1%, while its share of the labour force shrank from 28% to 4%. Meanwhile, the cultivated land area has fallen by a quarter, while part-time farming has become the norm. Food self-sufficiency, a key objective for the government, fell from 79% in 1960 to 39% in 2010 in calorie terms. Agriculture faces a number of challenges:

- Productivity in land-intensive agriculture is low, largely reflecting the small average farm size of only 2 hectares, compared to the European Union (14 hectares) and the United States (170 hectares) (MAFF, 2012a). Small farms reflect the land reform following World War II, Japan's mountainous terrain, the production adjustment programme that allocates output of rice to specific farmers and subsidies that make small-scale farming profitable.

- High levels of commodity-specific support on certain products impose heavy burdens on consumers and taxpayers. The overall level of assistance, as measured by the Producer Support Estimate, was 51% in Japan in 2009-11, about double the OECD average (Figure 9). Higher prices boosted consumer spending on agricultural products to 1.8 times above what it would have been in the absence of government policies.
- Border measures, including the tariff of 341 yen per kilo of rice, which amounted to a 780% tariff rate in 2012, isolate farmers from international competition and complicate Japan's participation in comprehensive regional and bilateral trade agreements.

Still, some parts of the agricultural sector are thriving. In particular, vegetables increased their share of agricultural output from 9% in 1960 to 28% in 2010, exceeding the share of rice. Vegetables are a labour-intensive sector with business-oriented farms that receive relatively little government support and are not necessarily large-scale. A more open and competitive environment is essential to secure the growth and competitiveness of agriculture and promote Japan's integration in the world economy. Demographic factors create an opportunity for farm consolidation and other reforms to boost productivity. Indeed, in 2010, the average age of farmers was 66 and 56% of rice farmers were over 70, while another 36% were between 50 and 70 (Figure 10). Only 8% were under age 50.

Figure 9. The Producer Support Estimate for Japan is one of the highest in the OECD



Note: Producer support is the annual monetary value of gross transfers from consumers and taxpayers arising from policies that support agriculture, regardless of their nature, as a per cent of the value of gross farm receipts. Countries are ranked according to their 2009-11 levels. Chile, Israel and Slovenia excluded from the OECD total in 1986-88. The EU figure is the EU12 for 1986-88 and the EU27 for 2009-11.

Source: OECD PSE/CSE Database 2012.

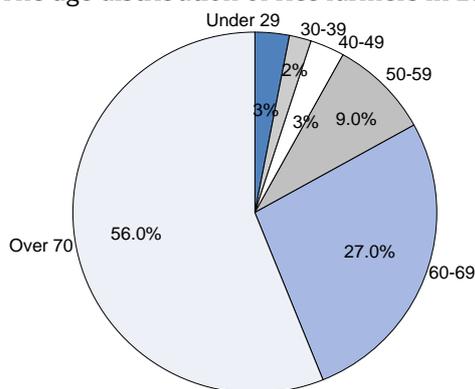
The 2010 *Basic Policy on Comprehensive Economic Partnerships* stressed that Japan must implement “bold policies that will realise the full potential of the agricultural sector”. Bold agricultural reform to revitalise the agricultural sector should begin promptly, given the urgent need to boost Japan's growth potential and the advanced average age of farmers. A reform agenda should include the following:

- The production adjustment programme should be phased out over a fixed and relatively short time period, thereby increasing the share of rice production by efficient farmers and reducing its production cost. The impact of lower rice prices should be mitigated by transitory income payments to large farmers.
- Support for farmers should be shifted away from market price supports – the most distortive type of support – toward payments decoupled from production and based on environmental services, such as water-buffering to prevent flooding. The degree of decoupling of producer support remains far below the European Union and the United States (Figure 11). Decoupled payments have proven to be more efficient and effective in improving farm income and the environmental performance of agriculture, as well as being more transparent. Moving away from market price supports would shift the burden from consumers to taxpayers, while lowering the overall cost of agricultural support according to an OECD study (OECD, 2009a).

- Farm consolidation needs to make progress, in line with the government's goal of having a majority of farms with 20-30 hectares in flat regions of Japan. Indeed, the government estimates that land productivity on rice farms of 10 to 15 hectares is double that on farms of 0.5 to 1 hectare, the current average. Land markets should become more dynamic, notably by lifting obstacles to land transactions for farming. The prohibition on non-agricultural corporations owning farmland should be abolished to leave open all options for attracting labour, capital and technology to agriculture, while ensuring that land-use regulation limits the shift of farmland to other uses. At the same time, taxation ought to be reformed so as to discourage the holding of idle agricultural land near urban areas.

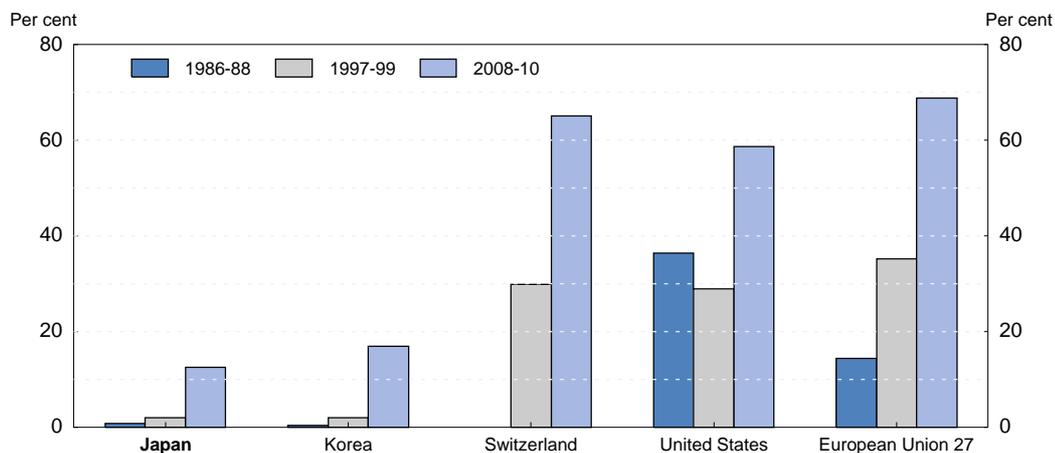
Figure 10. Japan's farm work force is elderly

The age distribution of rice farmers in 2010



Source: Ministry of Agriculture, Forestry and Fisheries (2010).

Figure 11. The degree of decoupling in Japan is one of the lowest in the OECD



Source: OECD (2012a).

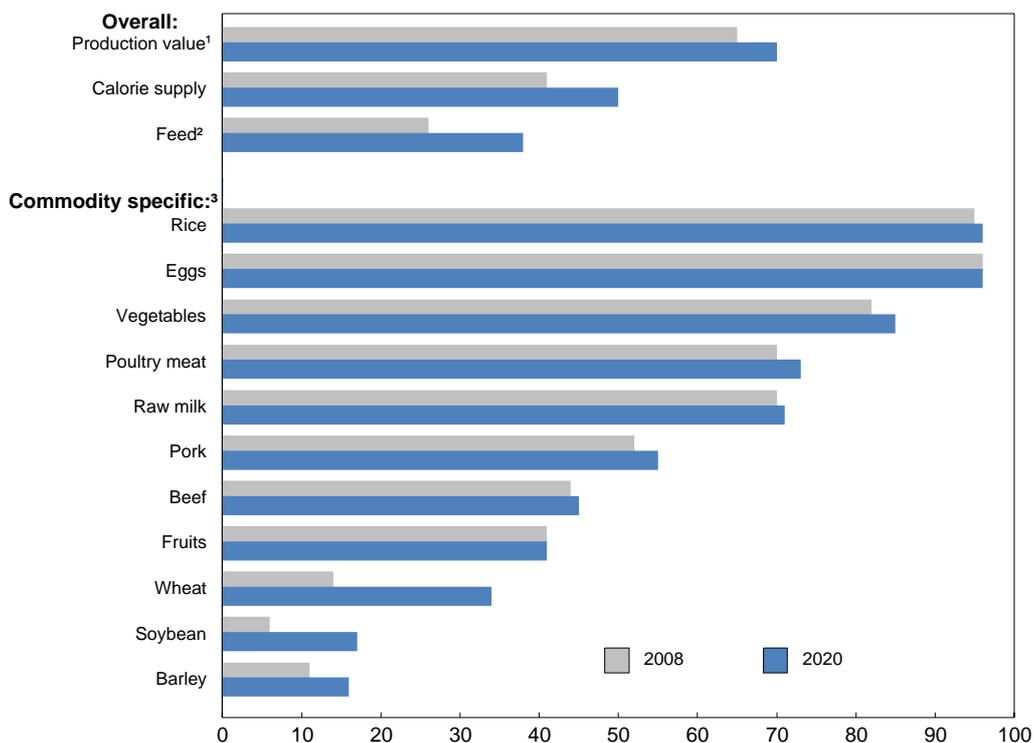
How to read this figure. Decoupled support refers to assistance to farmers that does not influence agricultural production. A low level of decoupling means that agricultural policies have a large impact on production. Zero decoupling would mean that the production impact of agricultural policies is as if all support were provided through market price supports.

These reforms are essential for significantly increasing Japan's integration in the world economy. The 2010 New Growth Strategy set an objective of doubling the cross-border flow of people, goods and capital into Japan by 2020 by reducing barriers. However, the 2010 *Basic Policy on Comprehensive Economic Partnerships* acknowledged that Japan is falling behind other countries in establishing high-level EPAs, as discussed in the chapter on the New Growth Strategy in the 2011 *OECD Economic Survey*

of Japan. Moreover, the government set a target of lifting the share of Japan's trade covered by EPAs from 19% to 80% by 2020. Moving to a more market-based agricultural sector would allow Japan to reduce import protection. To achieve these goals, the government should step up its efforts to conclude EPA negotiations with Australia, launch negotiations with the European Union and achieve regional economic partnerships such as the China-Japan-Korea FTA and the Regional Comprehensive Economic Partnership. Reducing trade barriers would also promote foreign direct investment (FDI), given that openness to trade is positively correlated with the stock of FDI (2006 *OECD Economic Survey of Japan*). The stock of inward FDI in Japan was only 3.8% of GDP in 2011, the lowest in the OECD.

The *Basic Policy on Comprehensive Economic Partnerships* stresses the need to increase Japan's food self-sufficiency, while promoting high-level EPAs and the revitalisation of the agricultural sector. A more complete opening of the agricultural sector would tend to reduce food self-sufficiency, at least in the short run, in contrast with the government's goal of raising it from 41% in 2008 to 50% by 2020 in terms of calories consumed (Figure 12). The objective should instead be food security, which would best be achieved by a comprehensive strategy that includes a competitive, efficient farm sector, complemented by emergency reserves and agreements to promote stable trading arrangements, while preserving the agricultural resource base. Increasing the number and coverage of EPAs with food-exporting countries is one of the ways to stabilise and diversify food imports by establishing long-term relationships, thus reducing reliance on the more volatile spot markets.

Figure 12. Japan's targets for food self-sufficiency in 2020



1. Assuming that prices in 2020 remain unchanged at 2008 levels.

2. In terms of total digestible nutrients.

3. In terms of weight.

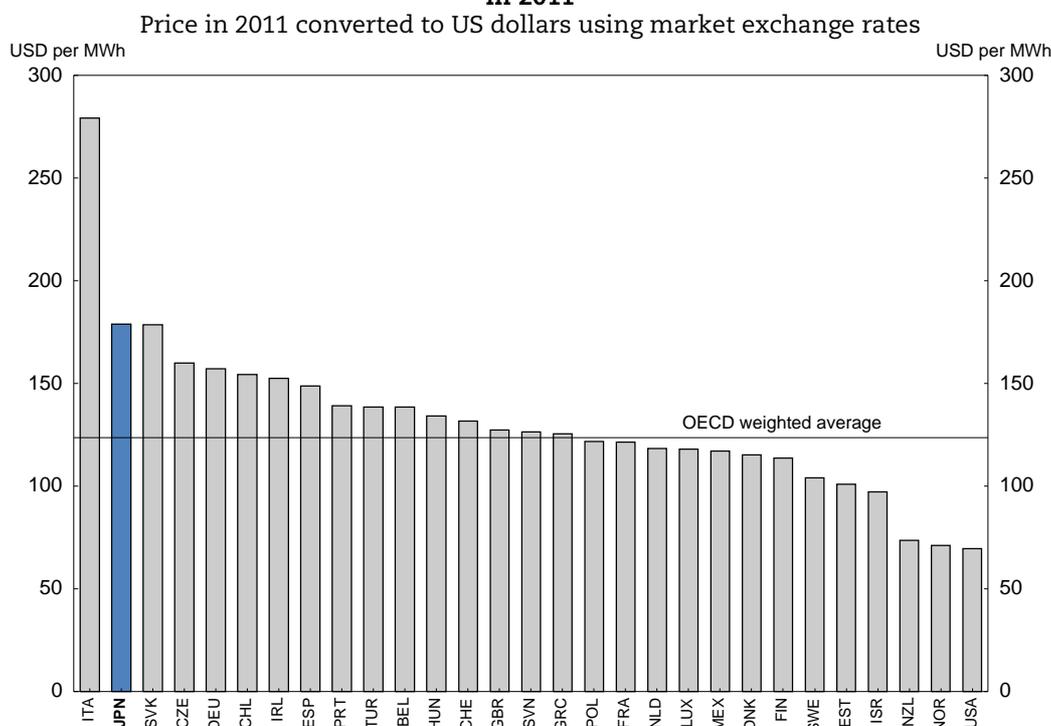
Source: Ministry of Agriculture, Forestry and Fisheries (2012b)

Promoting green growth and restructuring the electricity sector

The 2011 disaster and nuclear problems opened the door to a new energy policy, as they raised fundamental questions about the electricity system's ability to prevent and respond to accidents. In particular, the system has had difficulty coping with the shortages caused by the accident and the suspension of operations of nuclear power plants. Electricity surpluses in some regions could not be transferred to areas with shortages due to inadequate interconnection facilities, reflecting a market structure dominated by ten regional, vertically-integrated monopolies that supply 92% of total electricity consumption. In addition, the absence of market mechanisms to modify supply and demand in line with current conditions forced the government to rely on inefficient policies, such as rolling blackouts and across-the-board cuts, to cope with shortages.

The weaknesses confronted since the disaster have long been apparent, prompting the government to introduce reforms since 1995. These were intended, in part, to reduce the price of electricity, which in the industrial sector is the second highest in the OECD area (Figure 13), thus reducing Japan's competitiveness. However, the impact of liberalisation has been limited thus far, as reflected in the continued dominance of the regional monopolies.

Figure 13. Japan's electricity price in the industrial sector was one of the highest in the OECD in 2011



Source: OECD/IEA, Energy Prices and Taxes 2012.

Promoting green growth by increasing the size of the renewables market

The Fukushima accident undermined public confidence in nuclear safety and the long-term energy strategy, which had envisaged an increase in nuclear power to 50% of electricity generation in the 2030s. The suspension of operation of nuclear power plants has been offset thus far by increased use of thermal plants and energy conservation. In September 2012, the previous government announced a plan to launch a green energy revolution, consistent with a phasing-out of nuclear power by the 2030s (NPU, 2012a). However, such a policy would impose heavy burden on consumers. For example, four studies published by the National Policy Unit projected that household electricity prices would rise by 90% to 110% if nuclear power were completely replaced by renewables, although 10% to 65% of the impact on households' electricity bills would be offset by reduced consumption.

A green energy revolution would promote green growth via investment and employment in renewables. Due in part to Japan's highly segmented market, renewable energy has played a small role in Japan, accounting for only 2.8% of electricity (excluding hydro), only half of the OECD average of 6.3%. Moreover, the share of renewable energy increased by only 1.4 percentage points in Japan between 1990 and 2011, compared to the OECD average of 4.5 points, despite the introduction of a Renewable Portfolio Standard (RPS) in 2003. In 2012, the RPS was replaced by a feed-in-tariff programme, which allows producers of electricity from renewable resources to sell electricity at a fixed long-term price guaranteed by the government. In the long run, pricing carbon through a carbon tax in combination with an emissions trading system is the key to promoting the use of renewables (see the chapter on green growth in the 2009 *OECD Economic Survey of Japan*).

Energy conservation should also be part of the strategy to cope with reduced output from nuclear power in Japan, which has achieved a high level of energy efficiency. In 2011, energy intensity in Japan (measured as energy inputs per unit of GDP) was the ninth lowest among OECD countries and less than two-thirds of the average of OECD countries. In 2012, the previous government set goals of reducing electricity use by 10% from its 2010 level by 2030 and total energy use by 19%. In addition to promoting renewables, a strong and consistent carbon price would also promote energy conservation. For example, a study by the National Institute for Environmental Studies estimated that doubling household electricity charges would reduce consumption by 30% (NPU, 2012b). In addition to a carbon price, specific measures to increase energy efficiency in the transport and building sectors are important.

Promoting green growth and conservation requires a clear long-run policy commitment that encourages private investment (Jones and Yoo, 2012). The lack of any legal framework or commitment to increase the share of renewables in Japan creates uncertainty that may hinder private-sector involvement. The uncertainty is heightened by the opposition to phasing out nuclear power, particularly by the business sector, as it may further increase electricity prices.

A more market-oriented electricity sector

The disaster also revealed the shortcomings of the electric power system. To create a more market-oriented system, the liberalisation process, which stopped in 2005, should be resumed. The 2012 government reform programme includes measures to activate the wholesale market, which remains insignificant as the regional monopolies have little incentive to purchase or sell electricity in the wholesale market to independent "power producers and suppliers" (PPS), who have a market share of less than 3%. In particular, the transmission charge imposed on the PPS by the regional monopolies prevents some potential competitors from joining the market, even though the charge is regulated by the government. Japan introduced accounting unbundling in 2003 to boost competition (see the competition chapter in the 2004 *OECD Economic Survey of Japan*). However, it has been ineffective as generation, transmission and retailing remain in the hands of the vertically-integrated monopolies, allowing them to use cross-subsidisation to discourage entry by potential competitors (IEA, 2008). To counter such behaviour, the government has proposed "legal" or "management" unbundling. However, this may not be enough. A better approach to enhance competition would be ownership unbundling to separate generation and transmission and eliminate any incentives for cross-subsidisation.

In addition to ownership unbundling, other policies are needed to enlarge the wholesale market by boosting the number of participants. Expanding interconnection capacity between regions would help bring in more players, while at the same time improving the capability to cope with electricity supply disruptions in certain regions by utilising surpluses in other areas. Furthermore, price flexibility is important (IEA, 2005). Japan should introduce real-time pricing to allow prices to change flexibly in line with the market situation.

Finally, it is crucial to establish independent regulators that are separate from government ministries. Regulatory failure has been identified as a factor in the nuclear accident in 2011, as the Nuclear Industry Safety Agency (NISA) was subordinate to the Ministry of Economy, Trade and Industry (METI), which promoted the nuclear industry. NISA was separated from METI and incorporated in a new Nuclear Regulatory Authority (NRA) under the Ministry of the Environment in 2012. In addition, the law clearly stipulates that the Minister does not have the authority to supervise the NRA's regulatory activities in order to assure its independence. Establishing an independent regulator for electricity would help overcome the vested interests of the regional monopolies and promote a competitive market open to new entrants.

Box 2. Summary of recommendations to use reconstruction to revitalise Japan

Reforming agriculture and promoting Japan's integration in the world economy

- End the production adjustment programmes over a fixed and relatively short time period to allow farmers to decide how much and where to produce, thus allowing efficient farmers to increase production, while reducing production costs.
- Provide temporary support payments to large farmers to compensate for the fall in rice prices resulting from the phasing out of the production adjustment programmes.
- Shift from market price supports to decoupled payments targeted to key policy objectives, thereby reducing the overall cost of agricultural policies and shifting the burden from consumers to taxpayers.
- Promote the consolidation of farmland so as to cut production costs by lifting obstacles to land transactions.
- Remove border measures on agricultural products as agricultural reform advances, thus accelerating Japan's participation in comprehensive regional and bilateral trade agreements and encouraging inflows of FDI.
- Ensure food security supply through a more competitive and diversified agricultural sector, stable imports from a diversified group of countries, emergency reserves and conservation of the agricultural resource base.

Promoting green growth and restructuring the electricity sector

- Promote an increased role for renewables through the feed-in-tariff system to provide appropriate incentives, while ensuring a strong and consistent price on carbon through a carbon tax in combination with an emissions trading system.
- Introduce ownership unbundling to create a level playing field between regional monopolies and new entrants.
- Expand interconnections and introduce real-time pricing to promote a competitive, nationwide electricity market.
- Ensure the independence of the new Nuclear Regulatory Agency and create an independent regulator for the electricity sector to promote competition.

Other policies to promote growth: Raising labour force participation and improving education

In addition to the reconstruction-related reforms discussed above, measures to boost labour force participation and to improve education are needed to sustain growth in the face of rapid population ageing. The working-age population is projected to fall by nearly 40% by 2050 (Figure 14), and Japan's elderly dependency ratio will remain the highest in the OECD area through 2050 (Panel B). The ratio of working-age persons to the elderly will plummet from 2.8 in 2009 to 1.3 in 2050. Easing controls on immigration, in line with the objective in the *Strategy to Revitalise Japan* to double the number of high-skilled foreigners in Japan by 2020, would help promote economic growth. Promoting the entry of foreign workers would also help mitigate the demographic adjustment. The priority, though, is to boost labour participation by making the most of Japan's human resources, including women, older persons and youth. Achieving the 2% real growth target set by the *Strategy* also requires boosting labour productivity, which was 25% below the top half of OECD countries in 2011 (OECD, 2013). To narrow the gap, Japan needs structural reforms, particularly in services (see the chapter on services in the 2008 *OECD Economic Survey of Japan*) and to improve the education system while increasing its contribution to innovation.

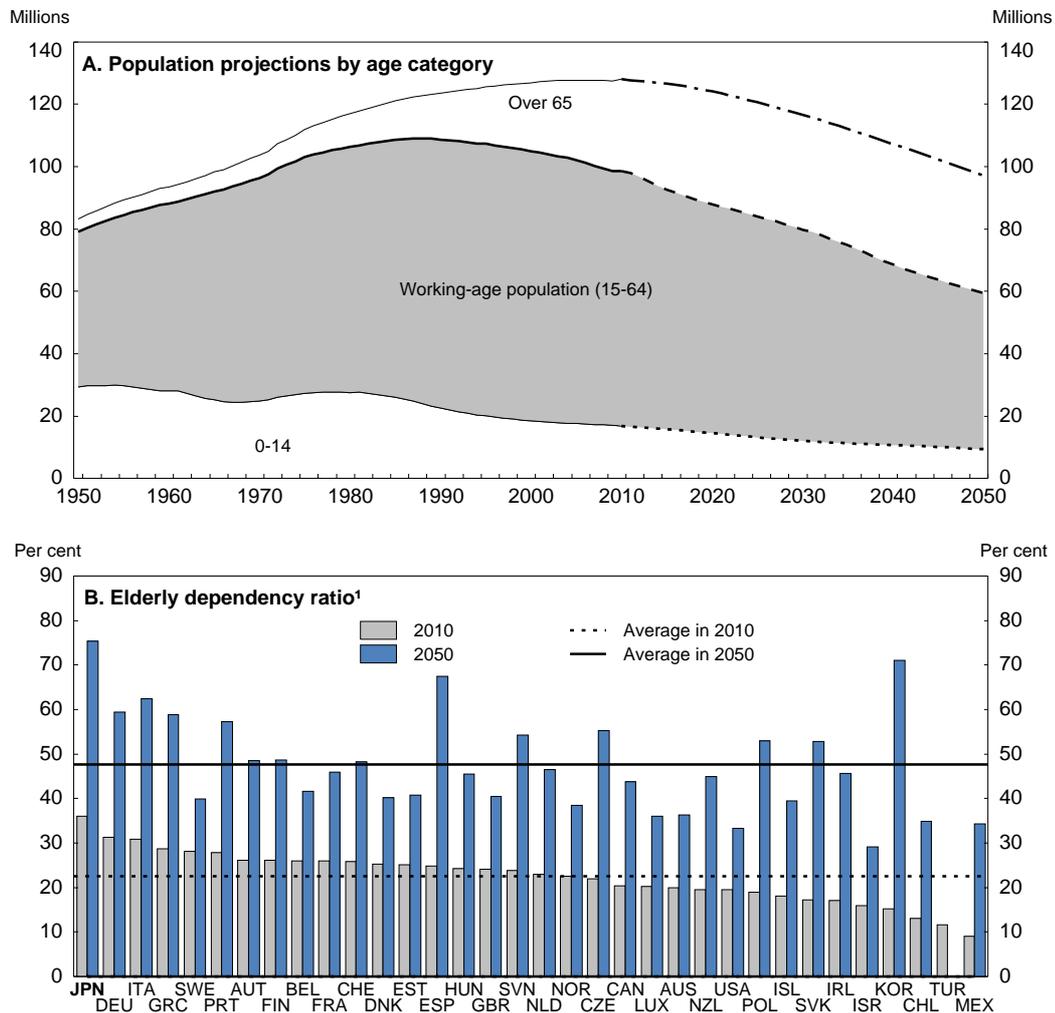
Increasing the labour force participation rate

The participation rate of prime-age women (between 25 and 54) rose from 65% in 1994 to 72% in 2010. Nevertheless, it was still the fifth lowest in the OECD area, as around 60% of female workers still withdraw from the labour force when their first child is born (see the labour chapter in the 2011 *OECD Economic Survey of Japan*). This results in an M-shaped pattern of female labour participation by age group, although it has become flatter since 1994. However, the increase in participation has been driven by a rising number of non-regular workers, suggesting a relatively tenuous connection to the labour market. The government should address the factors discouraging female labour participation by:

- Enhancing the availability of affordable and high-quality childcare.
- Reforming the tax and benefit system to remove disincentives to work for secondary earners.
- Improving work-life balance, notably by reducing long working hours and increasing working-time flexibility, in part by better enforcing the Childcare and Family Care Leave Law.
- Breaking down labour market dualism. Women employed as regular workers prior to leaving careers for children are likely to end up as non-regular workers, making employment less attractive (see below).

The employment rate for the 60-to-64 age group rose from 53% in 2006 to 57% in 2010, although most firms set mandatory retirement at age 60. Mandatory retirement is a key element of traditional Japanese labour practices, given that the steep seniority-based wage profile makes older workers expensive. Mandatory retirement also enables firms to dismiss unproductive regular workers in the context of high employment protection. The government has introduced measures to encourage workers to remain longer at firms, including a 2013 law requiring that firms keep all workers who wish to work until 65, although this increases the risk attached to hiring regular workers, thereby encouraging non-regular employment. Instead, Japan should move toward a more flexible employment and wage system that is based more on ability rather than age to encourage productive workers to remain employed. The policy priority is to abolish the right of firms to set a mandatory retirement age at 60, which would help to weaken the link between seniority and wages.

Figure 14. Japan's population, already the oldest in the OECD, is ageing rapidly



1. The over-65 population as a share of the working-age (15 to 64) population.

Source: National Institute of Population and Social Security Research, *Population Projection for Japan* (2012 version), and *OECD Demography and Population Database*.

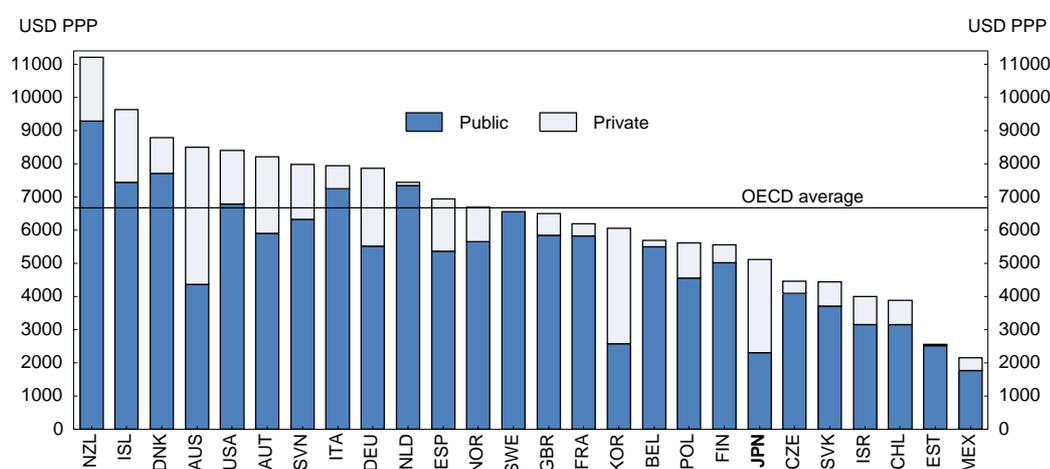
Japanese youth have been hit by the deterioration in the labour market during the past 15 years, which has reduced the share of new graduates hired. Consequently, a rising share of youth is employed as non-regular workers, unemployed or out of the labour force. Indeed, the participation rate for youth (aged 15 to 24) was 42% in 2011, compared with an OECD average of 47% (OECD, 2012g). At the same time, the share of firms that have hired non-regular workers due to difficulty in finding regular workers rose from 11.6% in 1999 to 17.8% in 2010, suggesting a problem of mismatch, which should be addressed through better vocational education and by creating qualifications that are recognised by firms (see the labour chapter in the 2011 *OECD Economic Survey of Japan*).

It is also important to expand vocational training, which plays a relatively small role in Japan, given the emphasis on firm-based training. Indeed, public spending on training in Japan was only 0.3% of GDP in 2010, less than half of the OECD average of 0.7% (OECD, 2012g). Programmes included in the Job Card initiative should be expanded, conditional on their success in improving participants' employment outcomes. Finally, it is important to address labour market dualism which, as in other OECD countries, hinders the integration of youth in the labour market.

Upgrading the education system to increase human capital

Japan is a top performer in education, as discussed in the education chapter of the 2011 *OECD Economic Survey of Japan*. The quality, as reflected in the OECD's PISA assessment of 15-year-olds, is one of the highest in the OECD, while the share of the adult population that has completed tertiary education is the second highest at 43%. Nevertheless, educational outcomes, which play a key role in productivity growth, could be improved by greater public investment in pre-primary education, which was the second lowest in the OECD in 2009 (Figure 15). Integrating childcare and kindergarten would improve the quality of education in childcare, while allowing cost savings by merging the two parallel systems. Allowing a greater role for private institutions, which are subject to controls, including price ceilings, would help reduce the childcare shortage. In the longer term, Japan should move toward a voucher system that encourages suppliers to compete in providing the services demanded by parents. At the primary and secondary levels, granting more autonomy to schools and expanding the scope for school choice by students would encourage schools to excel.

Figure 15. Spending per student on pre-primary education was low in Japan in 2009



Note: The bars show public (bottom part) and private (top part) education spending in US dollars, adjusted for price level differences across countries, for children too young for primary school. Annual spending is based on the number of students, calculated on a full-time basis.

Source: OECD (2012f), *OECD Education at a Glance 2012*.

In contrast to secondary schools, universities in Japan do not stand out in international comparisons, suggesting scope to improve quality. Restructuring in the face of the shrinking number of high school graduates should be driven by increased transparency about the quality of tertiary institutions, including the labour market outcomes of their graduates, to strengthen competition and upgrade performance. Stepping up the internationalisation of universities, which have a relatively small share of foreign students, could also help boost performance, as would attracting leading foreign tertiary institutions to Japan. The share of foreign students in Japan amounted to only 3.2% in 2008, far below the OECD average of 8.5%, and very few foreign higher education institutions operate in Japan.

R&D spending in Japan was the fifth highest in the OECD area, at 3.3% of GDP in 2010. However, the university sector, which employs a majority of PhDs in the natural sciences, plays a limited role, accounting for only 5.7% of R&D spending and performing 12.9% of R&D (Table 5). The wide gap reflects the large share of financing from the government for university-based R&D (53.6%). However, only 2.6% of the R&D performed at universities was financed by firms (Panel B), reflecting weak linkages between universities and the business sector. Increasing the quality of universities and promoting greater co-operation with firms would help accelerate innovation and growth. Universities apply for patents for only 24% of their technologies, compared to 51% in the United States and 61% in Europe (see the education chapter in the 2011 *OECD Economic Survey of Japan*). The role of universities could be strengthened by enhancing the mobility of researchers between universities, firms and government research institutes and raising the share of government R&D funding for universities that is competitively financed.

Table 5. Flows of R&D funds in 2010
A. R&D funding

	Share of total R&D spending	Allocation of R&D spending by sector performing it			
		Government	Universities	Business enterprises	Total
Government ¹	18.0	56.3	38.4	5.3	100.0
Universities	5.7	0.4	99.4	0.2	100.0
Business enterprises	75.9	0.6	0.4	99.0	100.0
Foreign sources	0.4	4.6	1.8	93.6	100.0

B. Sector performing R&D

	Share of total R&D performed	Funding source for R&D performed				
		Government	Universities	Business enterprises	Foreign sources	Total
Government ¹	10.6	95.3	0.2	4.2	0.2	100.0
Universities	12.9	53.6	43.7	2.6	0.1	100.0
Business enterprises	76.5	1.2	0.0	98.2	0.5	100.0

1. Includes private non-profit institutes.

Source: OECD R&D Statistics Database.

Box 3. Summary of recommendations to boost labour participation and improve the education system

Encouraging labour market participation of women, the elderly and youth

- Reform aspects of the tax and social security system that reduce work incentives for secondary earners.
- Increase the availability of affordable, high-quality childcare and encourage better work-life balance, in part by reducing working hours and enforcing the Childcare and Family Care Leave Law.
- Reduce labour market dualism, which makes employment less attractive, particularly to women and youth, through a comprehensive strategy that includes upgrading training programmes, increasing the social insurance coverage of non-regular workers and reducing effective employment protection for regular workers.
- Encourage greater use of flexible employment and wage systems to improve working conditions for older workers, in part by abolishing the right of firms to set mandatory retirement at age 60.
- Emphasise practical training, combining on-the-job and classroom learning, in part through expanding the Job Card system, to equip youth with the skills needed in the labour market.
- Improve vocational education, in part by creating a standard qualifications system that is recognised by firms.

Improving educational outcomes

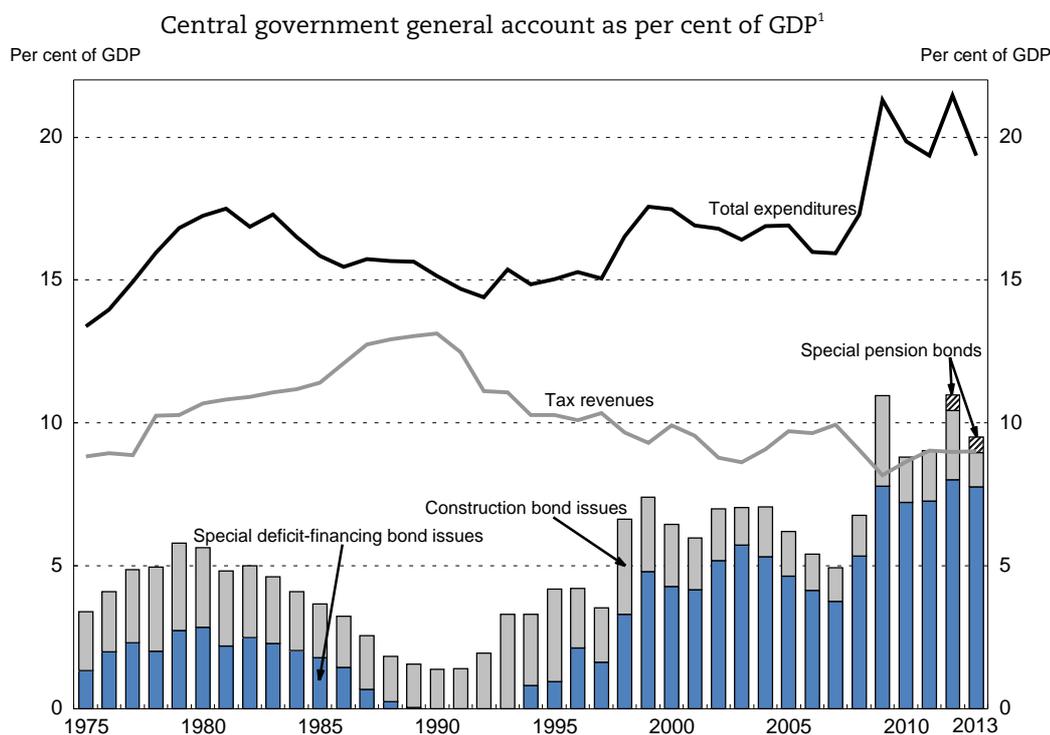
- Invest more in early childhood education and care to expand quality and integrate childcare and kindergarten.
- Expand the autonomy of primary and secondary schools and increase school choice to encourage schools to excel.
- Improve the quality of the tertiary sector by increasing transparency about performance to strengthen competition.
- Promote the internationalisation of the tertiary sector by increasing the number of foreign students and encouraging the establishment of more foreign tertiary institutions in Japan.
- Enhance the role of the tertiary sector in innovation, in part through greater co-operation between universities and the business sector, including enhanced labour mobility of researchers.

Restoring Japan's fiscal sustainability

The three-pronged strategy to achieve robust nominal income growth through inflation and reforms to boost real growth is essential to address Japan's fiscal predicament, which has reached a critical point after two decades of budget deficits. For the central government, borrowing exceeded tax revenue in FY 2009-10 and again in the FY 2012 initial budget (Figure 16). In the initial budget for FY 2013, tax revenue exceeds borrowing if special pension bonds are excluded. On a general government basis, the budget deficit (excluding one-off factors) is projected to remain at around 10% of GDP in 2012 and 2013.

For more than 20 years, the net and gross debt-to-GDP ratios have risen almost without interruption. Gross public debt is projected to rise further into uncharted territory, to around 230% of GDP by 2014 (Figure 17). Likewise, net public debt has increased sharply, and is now the second highest in the OECD after Greece (Panel B). The impact of such high debt on government interest payments has been mitigated thus far by exceptionally low interest rates, currently at less than 1%. A number of factors have kept interest rates low, including persistent deflation, the risk aversion of investors after a prolonged period of sluggish economic growth, the "home bias" that keeps savings in Japan, and ample household financial assets. The central bank has increased its holdings of government bonds to 11.6% of the outstanding stock. Commercial banks hold 38.2%, making them vulnerable to a rise in interest rates.

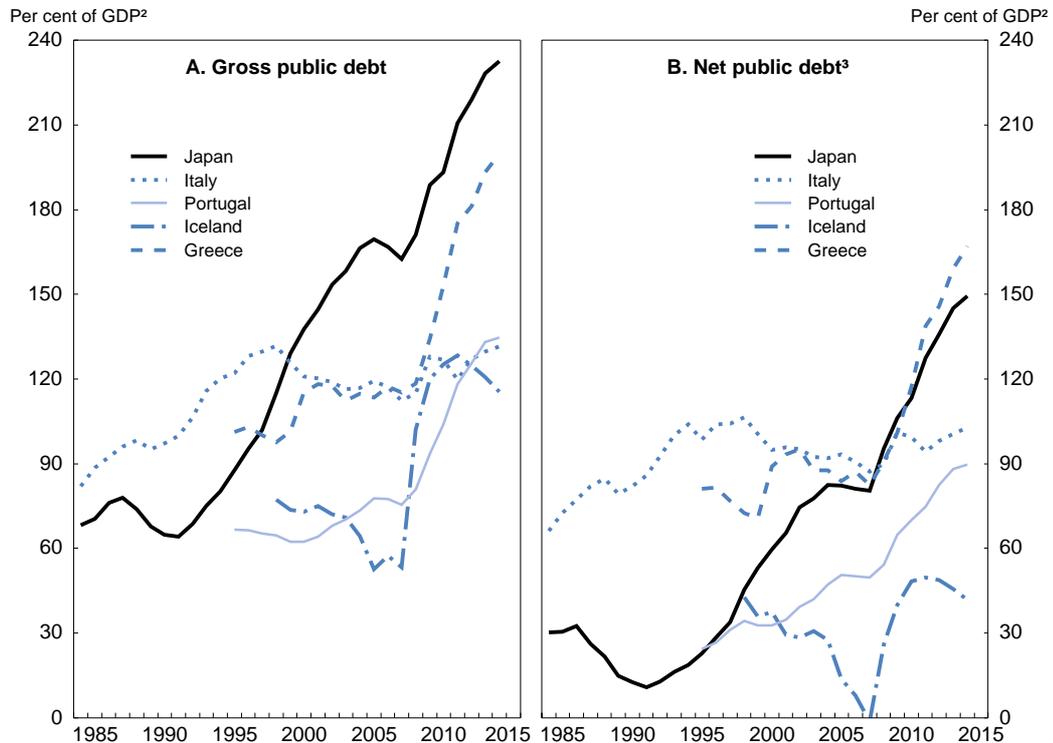
Figure 16. The gap between central government expenditure and tax revenue is widening



1. The final outcome for FY 1975-2011, the revised budget for FY 2012 (including the government's contribution to the basic pension system and the special pension bonds to finance it), and the initial FY 2013 budget. Reconstruction spending and bond issuance are excluded for FY 2011-13.

Source: Ministry of Finance and OECD calculations.

Figure 17. Public debt in selected OECD countries¹



1. The five countries with the highest gross debt ratios (gross liabilities divided by GDP) in the OECD area in 2010.
 2. OECD estimates for 2012 and projections for 2013-14.
 3. Net debt is gross debt less financial assets held by the government.
- Source: OECD Economic Outlook, No 92, and revised OECD estimates and projections for Japan for 2012-14.

However, the deflationary equilibrium – large government deficits financed at low rates by Japanese savers – will not last forever. The government estimates that the effective interest rate (interest payments divided by gross debt) on its bonds will rise to 2% by the end of the decade, but much larger increases are possible. A significant rise in the long-term interest rate would compound Japan’s fiscal predicament and hurt the economy and the financial institutions holding government bonds.

The Fiscal Management Strategy

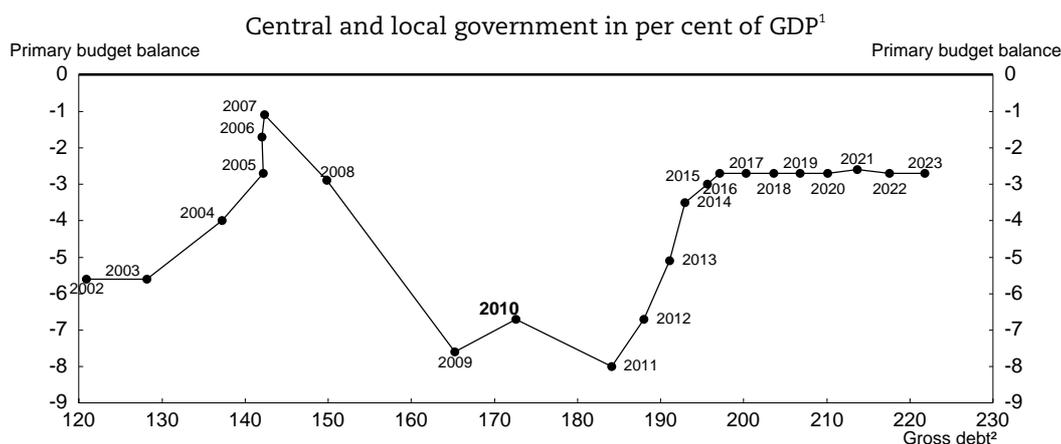
The immediate challenge is to reduce the budget deficit to forestall, or at least limit, any rise in the long-term interest rate. In the longer term, the debt-to-GDP ratio must be reduced. In 2010, Japan launched the Fiscal Management Strategy, which included numerical targets to enhance its credibility:

- *A short-term target:* Limiting new government bond issuance to the previous fiscal year, excluding reconstruction and special pension bonds. In practice, this has meant limiting issuance to the FY 2010 level of around 44 trillion yen (9% of GDP).
- *A medium-term target:* Reducing the primary budget deficit of central and local governments, which was 6.4% of GDP in FY 2010, by half by FY 2015. To meet the target, central government primary spending (*i.e.* not including interest and debt repayments), excluding reconstruction spending, was to be kept at the level of the previous fiscal year for the following three years.
- *A long-term target:* Achieving a *primary* budget surplus for central and local governments by FY 2020 and putting the public debt ratio on a downward trend from FY 2021.

The Diet passed legislation in 2012 to raise the consumption tax rate in two stages, from 5% to 8% in April 2014, and to 10% in October 2015. Although the tax hike is conditional on “an improvement in

economic conditions”, which is to be assessed based on a range of factors, it is crucial that Japan follow through on the tax hike to maintain confidence in its public finances and achieve its FY 2015 target of halving the primary fiscal deficit. The doubling of the tax rate will generate revenue equivalent to almost 13.5 trillion yen (about 2.7% of projected GDP in 2015), of which about one-fifth will be used to improve the social security system through increased outlays for childcare, health care and pensions. The remainder is to be used to finance existing social outlays, thereby reducing the deficit. With the tax hike, Japan appeared to be on track to reduce the primary budget deficit to 3.2% of GDP by FY 2015, based on the government’s long-term projection (Figure 18).

Figure 18. The primary budget balance is projected to remain in deficit through 2023



1. Based on the government’s prudent scenario of nominal GDP growth of 1½ per cent.
2. The definition of gross public debt in this figure consists of central and local government bonds and loans by the “Special Account for Local Allocation and Local Transfer Tax”. It is thus less than the OECD figure, which is general government based on SNA93. The difference between the Cabinet Office and OECD figures is primarily due to short-term bonds, the social security fund’s debt and other liabilities that are not accounted for by the Cabinet Office.

Source: Cabinet Office (2012).

How to read this figure. The vertical axis shows the central and local government primary deficit (that is, the difference between revenues and spending, excluding net interest payments on the public debt), divided by GDP. For example, in 2011, the primary deficit was 8% of GDP, and gross debt was 184%.

In January 2013, the new government announced a 10.3 trillion yen (2.2% of GDP) fiscal package that includes additional funds for the reconstruction of the Tohoku region and disaster prevention (3.8 trillion yen), social spending and regional revitalisation (3.1 trillion yen) and measures to promote industrial competitiveness and innovation (3.1 trillion yen). Financing the package will require around 5 trillion yen (1% of GDP) of additional bond issuance (Government of Japan, 2013). The economic impact of the package on growth will facilitate a decision to implement the consumption tax hike as planned.

Given signs of renewed growth in early 2013 (noted above), the fiscal stimulus package raises a number of concerns. *First*, with public works spending accounting for almost half of the fiscal package, there is concern that it will provide only a temporary boost to growth, while increasing government debt, although the package includes projects aimed at enhancing growth potential. Between 1990 and 2008, Japan introduced 15 fiscal stimulus packages containing public works spending, amounting cumulatively to 15% of 2011 GDP, without much positive impact on its growth potential (Brückner and Tuladhar, 2010). *Second*, the additional borrowing to finance the package requires breaking the 44 trillion yen ceiling on bond issuance and the 71 trillion yen ceiling on primary spending in FY 2012, adding to uncertainty as the new government prepares a new basic reform programme for economic and fiscal management for mid-2013 and raising risks of an adverse reaction in the government bond market. The government’s decision in January 2013 that it will maintain the fiscal targets for FY 2015 and FY 2020 noted above is a positive sign. *Third*, even if the package in FY 2012 lifts growth, it further enlarges the primary deficit, thereby increasing the already-large amount of fiscal consolidation needed to achieve the FY 2015 primary deficit target of 3.2% of GDP. Past experience in OECD countries shows that even a short delay in

consolidation increases the required tightening of the underlying primary balance to reach prudent debt levels (OECD, 2012c).

Even before the January 2013 fiscal package, Japan was not on track to achieve the target of a primary budget surplus in FY 2020. Instead, the deficit was projected to stabilise at around 3% in the government's "prudent growth" scenario, which assumed nominal GDP growth of 1½ per cent (Figure 18). Under this scenario, the public debt ratio was estimated to rise further to 261% of GDP on a general government basis (Table 6). A primary budget that is close to balance is unlikely to be sufficient to stabilise the debt ratio, let alone put it on a downward trend. Instead, this may require a primary surplus (on a general government basis) of almost 4% of GDP, given that public debt is projected to be 2.6 times GDP and assuming that the nominal interest rate is 1½ percentage points above the nominal growth rate, the average gap since 1980 and close to the 1.2 point gap in FY 2020 assumed in the government's long-term projection.

Table 6. An illustration of debt dynamics

On a general government basis through 2020¹

A. Level at which debt-to-GDP ratio is stabilised (% of GDP)²					
Gap between interest rate and nominal growth ³	Nominal GDP growth rate (per cent at annual average rate through 2020)				
	-0.75	1.5	3.0	5.0	10.0
0.0	284	248	227	202	153
1.5	298	261	239	213	161
3.0	314	274	251	224	169
4.5	330	288	264	235	178
B. Improvement in the primary budget surplus needed to stabilise the debt-to-GDP ratio (% of GDP)					
Gap between interest rate and nominal growth ³	Nominal GDP growth rate (per cent at annual average rate through 2020)				
	-0.75	1.5	3.0	5.0	10.0
0.0	3.0	3.0	3.0	3.0	3.0
1.5	7.5	6.9	6.6	6.2	5.4
3.0	12.4	11.2	10.5	9.7	8.1
4.5	17.9	16.0	14.9	13.6	11.0

1. General government (central and local government, plus social security) is the appropriate measure as it determines the evolution of government debt.
2. The calculations are anchored on the projection of a debt ratio of 230% of GDP in 2014 (*OECD Economic Outlook*, No. 92).
3. In percentage points in 2020. The average gap during the past 30 years was 1.5 points and the government projects a 1.2 point gap in 2020. The interest rate is the government's effective borrowing rate.

Source: *OECD Economic Outlook Database* and OECD calculations.

In this scenario, Japan would need additional fiscal consolidation of around 7% of GDP to stabilise the debt ratio by 2020, moving from the projected primary deficit of 3% of GDP to a primary surplus of almost 4%. However, the amount of fiscal consolidation that is needed and the level at which the debt ratio are stabilised are sensitive to nominal output growth (Table 6). Were nominal GDP to keep declining at the ¾ per cent annual rate of the past 10 years, the primary budget would have to improve by 7.5% of GDP (from a 3% of GDP deficit to a surplus of 4.5%) in 2020 (assuming that the gap between nominal growth and the interest rate remained at 1.5 percentage points). In this case, debt would stabilise at 298% of GDP. If nominal growth were 3% instead, an improvement of 6.6% in the primary balance would stabilise the debt ratio at 239% of GDP, illustrating the importance of higher nominal growth in reducing the amount of necessary fiscal consolidation and the level at which debt is stabilised. The gap between

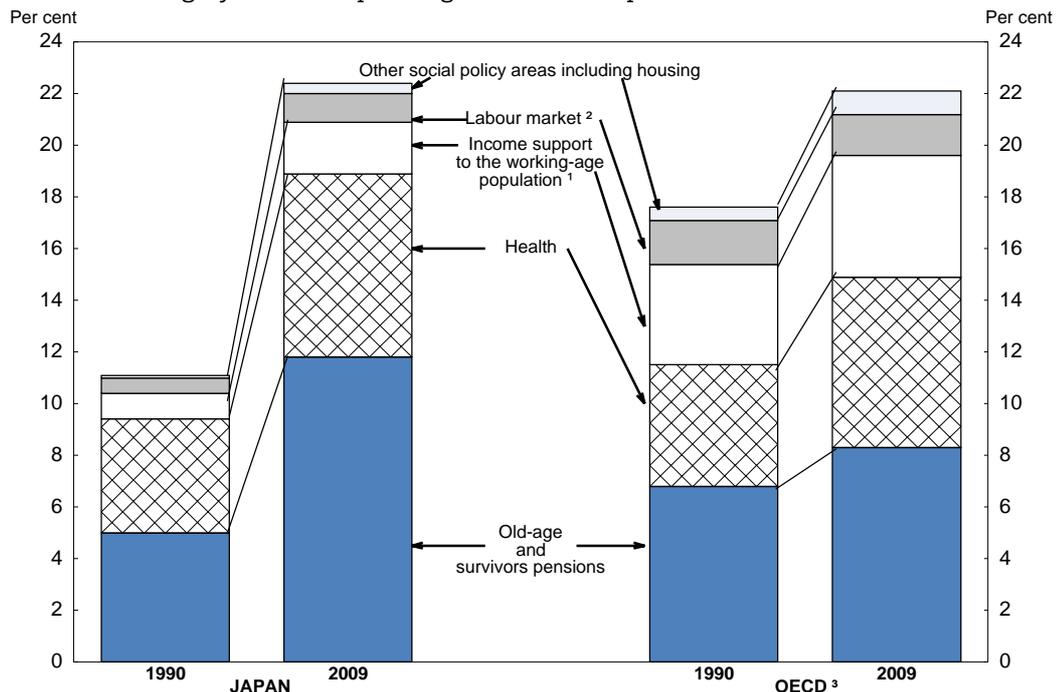
the interest rate and nominal growth is also crucial. For example, if the gap were to double to 3 percentage points, the required fiscal consolidation would be 10.5% of GDP, assuming 3% nominal growth.

Sustaining fiscal consolidation to achieve Japan's long-term goals

The fiscal challenge is heightened by the continuing rise in social spending driven by population ageing and the new initiatives to be financed by the 2014-15 tax increase. Reforms to control social spending, which doubled from 11% of GDP in 1990 to 22% in 2009 (Figure 19), should focus on pension and health spending, which together accounted for 9 percentage points of the rise. The chapter on health care in the 2009 *OECD Economic Survey of Japan* identified a number of policies to contain spending:

- Promote the shift of long-term care away from hospitals toward more appropriate institutions using the fee schedule and closer monitoring of the classification of patients in hospitals.
- Improve the payment system by reforming the diagnosis procedure combination, which sets an overall fee based on the illness, so as to strengthen incentives for hospitals to increase efficiency.
- Expand the use of generic medicine by making it the standard for reimbursement.
- Introduce gatekeepers to reduce the number of unnecessary consultations with specialists.

Figure 19. Public social spending has risen rapidly, driven by pensions and health care
Each category of social spending is shown as a per cent of nominal GDP



1. Includes the spending categories "Incapacity related" and "Family".
2. Includes the spending categories of "Active labour market programmes" and "Unemployment".
3. Weighted average of 34 OECD countries.

Source: OECD Social Expenditure Database.

Pension reform is also urgent, as the share of the population contributing to the mandatory basic pension continues to decline. The best option would be to raise the pension eligibility age, which would reduce the fiscal burden while increasing the labour participation of older persons (Sutherland *et al.*,

2012) and improving intergenerational equity. The hike in the pension eligibility age to 65 should be accelerated, followed by further increases achieved by linking it to longevity. Ensuring the sustainability of the pension system could also be achieved by reducing pension benefits and raising contributions. However, pension benefits are already low, with a replacement rate that is the fifth lowest in the OECD area (OECD, 2011d). Further reducing it would increase poverty among the elderly. As for the contribution rate, raising it beyond the 18.3% rate planned by 2018 could weaken work incentives.

Government spending in Japan, excluding social security outlays, was the fifth lowest in the OECD at 27% of GDP in 2010, compared to an OECD average of 33%, suggesting limited scope for major spending cuts. Consequently, revenue increases are inevitable to stabilise the debt ratio. Further hikes in the consumption tax, which is a value-added tax (VAT), should be the major source of additional revenue. A VAT is a relatively stable revenue source and is less harmful for economic growth, as it imposes fewer distortions on employment and investment (see the tax reform chapter in the 2008 *OECD Economic Survey of Japan*). Even with the hike to 10% in 2015, Japan's VAT rate would still be only about half of the OECD average of 19%.

Given that a one-point hike in the consumption tax rate generates revenue equivalent to about ½ per cent of GDP, achieving a 4% primary surplus entirely through the consumption tax would require boosting the rate to around the European average of 22%. To moderate the impact on growth, a smooth pattern of hikes is preferable. Moreover, it is important to maintain a single rate, relying on other policies to address the equity implications of a higher VAT (see below). A multiple-rate VAT would be less effective in reducing the regressive impact and would require a higher standard rate. Moreover, it would introduce a number of problems: *i)* higher administrative and compliance costs; *ii)* opportunities for fraud; and *iii)* distortions in consumption decisions. In addition to the consumption tax, environmental taxes, which are relatively low in Japan, would be a good source of revenue, as they would also help achieve environmental objectives, such as cutting greenhouse gases and pollution, while promoting green growth. Finally, there is scope to broaden direct tax bases, which are too narrow, by limiting tax allowances and exemptions. This would boost revenue from personal and corporate income tax from its current level of around 8% of GDP toward the OECD average of 11%.

Improving the fiscal policy framework

Given the unprecedented size of its debt ratio and the risk of higher interest rates, Japan needs a detailed and credible medium-term plan of spending cuts and tax increases, accompanied by improvements in the fiscal policy framework (as discussed in the fiscal chapter in the 2011 *OECD Economic Survey of Japan*). The establishment of independent fiscal councils in many OECD countries in recent years has helped to improve fiscal policymaking (OECD, 2012b). The resurrection by the new government of Japan's Council on Economic and Fiscal Policy (CEFP), which played an important role in past consolidation efforts, could be an important step in this regard. The CEFP, which includes four private-sector members in addition to economic ministers and the Bank of Japan governor, will prepare the new government's *Basic Policy for Economic and Fiscal Management* by mid-2013. A strong role for the private-sector members may compensate for the absence of an independent fiscal council, enabling it to play a useful role in evaluating progress in fiscal consolidation and helping to strengthen confidence in Japan's fiscal position. In addition, budget procedures should be improved through a multi-year budgeting plan, while fiscal targets need a stronger legal foundation to strengthen their credibility.

Box 4. Summary of recommendations to restore fiscal sustainability

- Target a primary budget surplus large enough to stabilise the debt ratio by 2020 and set out a detailed and credible plan, including spending goals by category and a timetable for tax hikes, to reach the target, thereby maintaining confidence in the fiscal situation and preventing a run-up in interest rates.
- Implement the government's plan to double the consumption tax rate in two stages to 10% by 2015.
- Maintain a single rate for the consumption tax to avoid the distortions associated with multiple rates.
- Reform social security programmes, particularly in health and long-term care, to limit spending pressures.
- Enhance the sustainability of the public pension programme by accelerating the rise in the pension eligibility age and then linking it to longevity.
- Rely primarily on the consumption tax and other indirect taxes, such as environment-related levies, as well as the broadening of income tax bases, to boost government revenue.
- Improve the fiscal policy framework through a multi-year budgeting plan and a stronger legal basis for fiscal targets, while using the Council on Economic and Fiscal Policy to guide the fiscal consolidation.

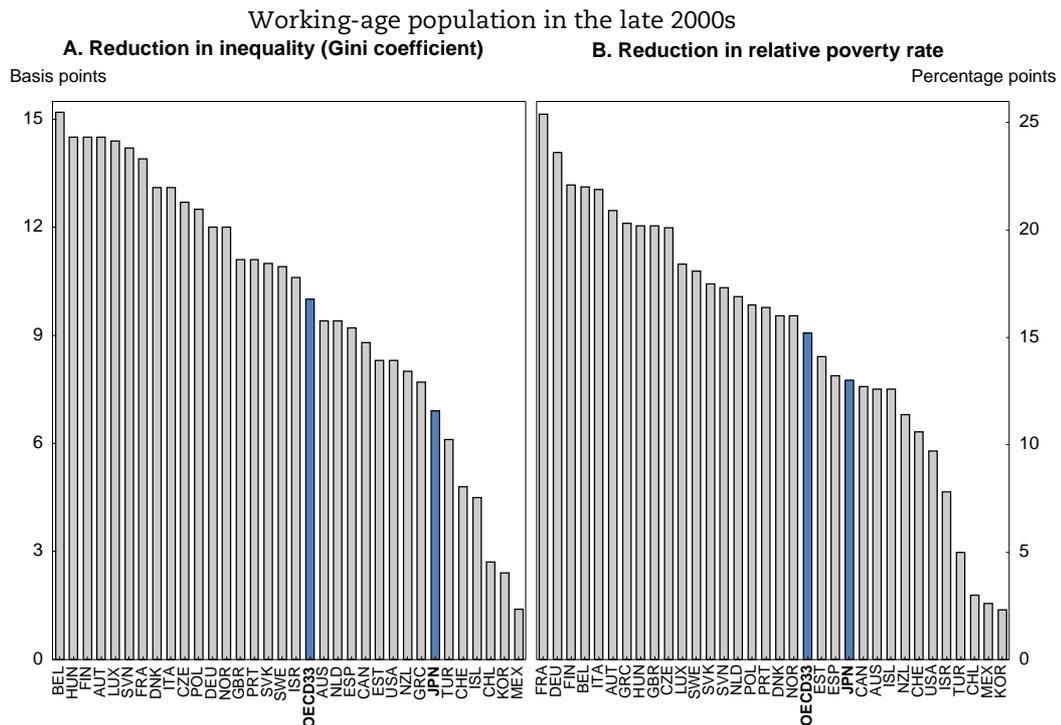
Promoting social cohesion

Fiscal consolidation needs to take into account the social impact. As in most OECD countries, income inequality and relative poverty have risen in recent years in Japan, reflecting structural changes, such as technological progress, resulting in widening wage dispersion (OECD, 2011a), and the increase in single-person households. In Japan, three other factors are especially important: *i)* the redistributive impact of the tax and benefit systems in offsetting inequality has been weak; *ii)* Japan's dualistic labour market increases wage dispersion; and *iii)* the education system relies heavily on private spending, resulting in inequality in educational outcomes. The associated social problems show up in quality-of-life indicators.

Strengthening the redistributive impact of Japan's tax and benefit systems

Japan is one of only two OECD countries, along with Israel, where the lowest income decile has suffered an absolute decline in their real income since the mid-1980s, thus boosting income inequality. Japan's tax and benefit systems reduced income inequality, as measured by the Gini coefficient, by only seven basis points (cutting the coefficient from 0.39 to 0.32) in 2008, the seventh-lowest reduction in the OECD (Figure 20), leaving Japan's Gini coefficient above the OECD average. Likewise, the impact of the tax and benefit systems on relative poverty, which was the sixth highest in the OECD, was relatively small. Japan is the only OECD country where the poverty rate for all working households and all households with children is higher after taking account of taxes and benefits. Moreover, the relative poverty rate for working single parents is the highest in the OECD at around 60%, resulting in a high incidence of child poverty and raising the risk of poverty being perpetuated across generations.

Figure 20. The impact of taxes and transfers on income inequality and poverty is weak in Japan



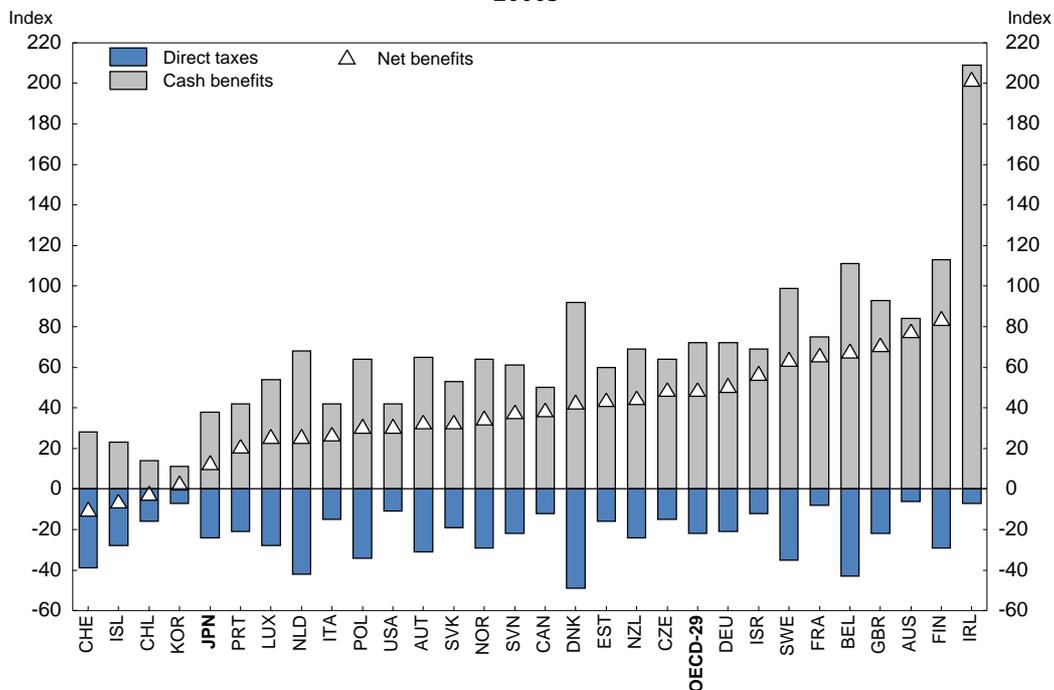
How to read this figure: The Gini coefficient is a measure of income inequality that ranges from 0 (all individuals have the same income, or complete equality) to 1 (one individual has all the income). The relative poverty rate is the percentage of households whose income is less than half median income. Panel A shows the reduction in income inequality, as measured by the Gini coefficient, due to taxes and transfers. Panel B shows the same for relative poverty. For Japan, taxes and transfers reduce the Gini by about seven basis points (cutting the coefficient from 0.39 to 0.32), and the relative poverty rate by about 13 percentage points.

The net transfer to the lowest income quintile in Japan through cash benefits and taxes boosted their total income only 13% above their market income, the fifth lowest in the OECD area and less than a quarter of the average (Figure 21). The low level of transfers reflects two factors. *First*, while total public social spending matches the OECD average of 22% of GDP, spending on the working-age population (2% of GDP) is far below the OECD average (5%). Social spending in Japan is instead concentrated on pensions and health care, which are largely focused on the elderly (Figure 19). *Second*, the distribution of benefits and the tax burden is the least progressive in the OECD.

The government plans to increase the progressivity of the tax system by raising the top rates of the personal income tax and the inheritance tax, while reducing the basic deduction for the inheritance tax. However, given that cash transfers account for three-quarters of the reduction in income disparities in the OECD area, well-targeted social spending is essential to promote inclusive growth (Joumard and Pisu, 2012). Japan should carefully design such policies to avoid wasteful spending and negative incentives for work.

Figure 21. Assistance to low-income households is small in Japan

Taxes paid by and benefits for the bottom 20% of households headed by working-age persons in the late 2000s¹



1. Countries are ranked by the impact of the redistribution system on household income, *i.e.*, by net benefits (benefits minus taxes). For the three countries with negative net benefits, taxes exceed benefits.

Source: OECD (2011a).

How to read this figure: On the vertical axis, 100 represents the market income of the poorest 20% of households. The bars above the horizontal axis show cash benefits received by this group and the bottom bars the taxes they pay. The triangles are the top bar minus the bottom bar, or benefits less taxes. For three countries, taxes exceed benefits, so the triangle is below zero. For Japan, the triangle shows that net benefits (benefits minus taxes) amount to 13% of market income for the poorest 20% of households.

The number of recipients of the Basic Livelihood Protection Programme (BLPP), which provides cash and a package of in-kind benefits to those living under the absolute poverty line, reached a record high of 3% of the population in 2012, with benefits increasing to 0.8% of GDP in the FY 2012 budget. Still, it is important to ensure that eligibility requirements, notably the asset test and the presence of relatives capable of providing support, do not prevent the provision of assistance to those in need. The “Life Support Strategy” announced in 2012 correctly focuses on: *i)* strengthening job support for those capable of working but lacking vocational skills; *ii)* preventing the perpetuation of poverty through generations;

and *iii*) promoting incentives to leave public assistance. It is important to co-ordinate the BLPP with the “second safety net” introduced in 2009 to provide income support primarily to former non-regular workers who are enrolled in training programmes but do not receive unemployment benefits.

The main priority is to introduce an earned income tax credit (EITC), which is likely to be effective in promoting work and assisting low-income persons in Japan, given its relatively wide earnings distribution, low taxes on labour and low benefits for the non-employed (see the fiscal policy chapter in the 2011 *OECD Economic Survey of Japan*). In particular, an EITC would mitigate the regressive impact of the consumption tax hike. An EITC should be accompanied by effective labour market activation measures to help the unemployed find jobs that would allow them to receive the EITC and a single identification number for taxpayers and those contributing to social security to enhance transparency about income, particularly of the self-employed.

Breaking down labour market dualism

A recent OECD study concluded that structural reforms can also have an important influence on inequality outcomes, in particular through education and labour market policies (Koske *et al.*, 2012). Japan’s labour market is segmented between regular and non-regular workers, primarily part-time, fixed-term and dispatched workers (*i.e.* workers sent from private employment agencies). The share of non-regular workers has nearly doubled since 1990 to 34% of total employment in 2012, as firms hire non-regular workers to achieve greater employment flexibility and to reduce labour costs (see the labour market chapter in the 2011 *OECD Economic Survey of Japan*). However, it creates a number of equity concerns:

- *A significant wage gap.* Non-regular workers were paid only 60% as much per hour as regular workers (excluding bonus payments) in 2009. Even after adjusting for workers’ type of job and educational attainment, the wage gap between full and part-time workers is 54.8% for men and 69.5% for women, making it a major cause of rising income inequality (Cabinet Office, 2009).
- *Less firm-based training.* The short tenure of non-regular workers reduces the incentive for firms to invest in training them, thus reducing their human capital accumulation and earning power. Only about a quarter of firms provided systematic on-the-job training to non-regular workers, less than half the proportion for regular workers.
- *Less coverage by the social safety net.* Around 35% of non-regular workers are not covered by employment insurance, even though they face precarious employment and consistently higher unemployment rates. Moreover, less than half of non-regular workers are covered by employee pension insurance.
- *Limited mobility between regular and non-regular employment.* non-regular employment is not a pathway to regular employment, heightening concern about the equity impact of dualism. One study found that only about 10% of non-regular workers become regular workers.

Not surprisingly, the government’s 2012 survey on well-being found that the happiness level reported by non-regular workers is below that of regular workers and the self-employed (ESRI, 2012).

Revisions to the labour law in 2012 introduced tighter restrictions on the use of non-regular workers. *First*, the dispatch of workers for employment lasting less than 31 days was prohibited and the dispatching agency must disclose the gap between the fees it receives and the wages paid to the workers. *Second*, workers on fixed-term contracts can become regular workers after five years in a firm. However, restrictions on non-regular workers tend to increase the costs of employment flexibility and lower overall employment, without addressing the fundamental causes of dualism. Moreover, further restricting the use of dispatched workers would promote the use of other types of non-regular workers, as occurred when restrictions on fixed-term contracts were introduced in Korea (OECD, 2012e). In Japan, further restricting the use of dispatched workers may increase the number of part-time employees, who on average receive lower wages and have less chance of achieving regular status. Instead, a comprehensive strategy aimed at reducing the factors that encourage firms to hire non-regular workers is needed, including increasing social insurance coverage and reducing effective employment protection for regular workers, while upgrading training programmes for non-regular workers.

Promoting social inclusion through the education system

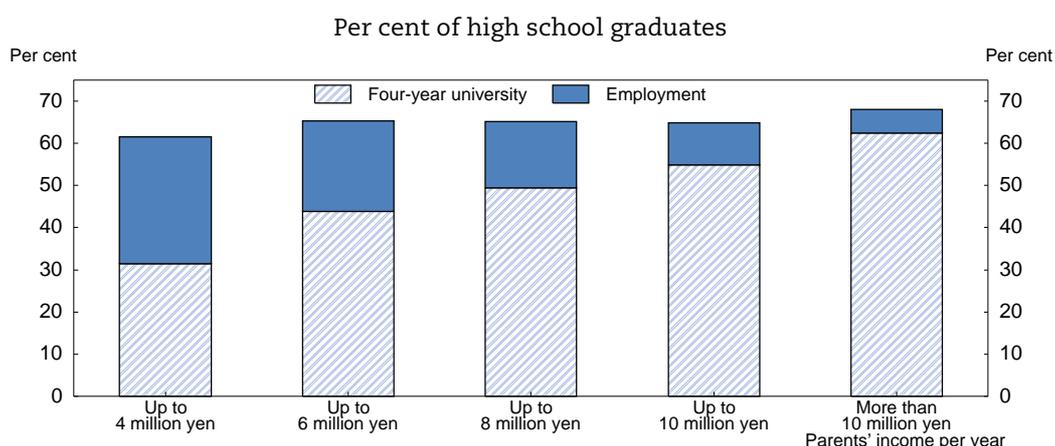
A number of education policy changes are needed to promote social cohesion, beginning with increased investment in early childhood education and care for children from disadvantaged families, who receive less intellectual development at home. A second concern is the heavy reliance on private, after-school tutoring, particularly in *juku*. Indeed, three-quarters of 15-year-olds participated in after-school lessons in math in Japan in 2009, the second-highest share after Korea, imposing heavy financial burdens on families. The average expenditure per student for after-school lessons more than doubled in real terms between 1985 and 2007, reaching around 11% of per capita income (see the education chapter in the 2011 *OECD Economic Survey of Japan*).

Not surprisingly, family income is a key determinant of spending on *juku* (Oshio and Seno, 2007). Educational results, in turn, are positively related to spending on after-school lessons, making family income a key determinant of educational outcomes and admission to prestigious universities, which offer significantly higher returns. For high school graduates with parents earning less than 4 million yen per year, a third enter four-year universities and another third begin working (Figure 22). In households earning more than 10 million yen, almost two-thirds enter university, more than ten times more the share entering the labour market. University attendance, in turn, is a critical factor determining employment status (including regular or non-regular) and income.

Policies to limit reliance on expensive, after-school lessons are thus a priority to reduce the importance of economic factors in determining students' educational performance. *First*, it is important to improve the performance of schools, given that parents cite low quality as a reason for sending their children to *juku*. *Second*, reducing the importance of multiple-choice exams – an area where *juku* are most effective for entrance to high school and university – would reduce their role. In any case, *juku* are likely to continue to play an important role, making it important to improve the access of low-income families to such opportunities by, for example, offering inexpensive after-school lessons in schools, as in Korea.

University tuition fees, which are the fifth highest in the OECD area, create concern about access for low-income students. Only about one-third of students received public loans in 2009, compared to more than three-quarters in a number of OECD countries with lower tuition fees. Japan should expand the loan system to complement its means-tested grant system.

Figure 22. Family income plays a key role in determining students' path following high school graduation



Source: Ministry of Education, Culture, Sports, Science and Technology (2009).

Promoting well-being and social progress

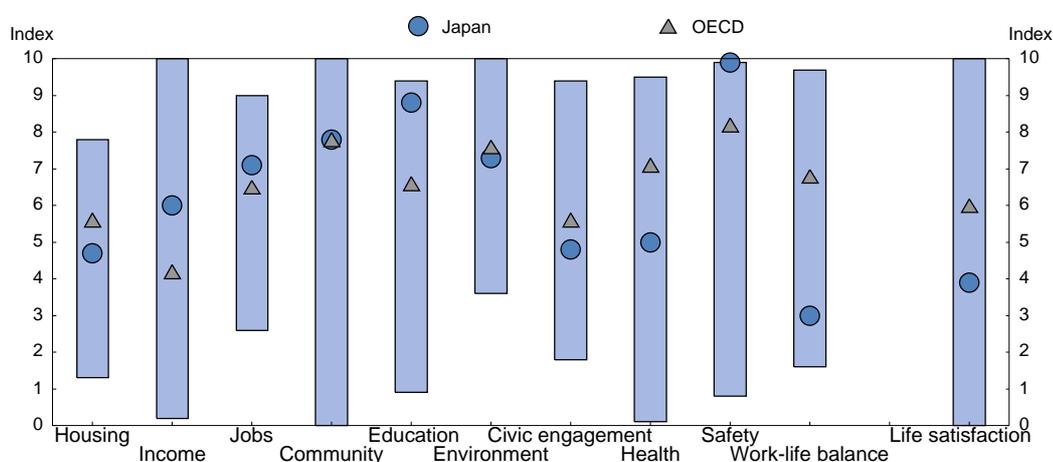
There is growing recognition that GDP and other economic indicators alone cannot fully portray people's well-being, which depends on other factors, including security, leisure, income distribution and the environment. In the 11 dimensions identified as essential to well-being in the OECD Better Life Initiative, Japan ranked significantly above the OECD average in four (Figure 23):

- *Income and wealth*: while per capita income is only slightly above the average, household financial wealth is the fourth highest in the OECD.
- *Jobs*: Japan has a relatively high employment rate and a low long-term unemployment rate.
- *Education*: Japan is near the top in the PISA assessment and in the share of adults with a university education.
- *Personal security*: the homicide and personal assault rates are among the lowest in the OECD.

However, Japan was lagging on other indicators, including:

- *Work-life balance*: Japan ranked 32nd among OECD countries, reflecting workplace practices, including long working hours, which also contribute to the very low fertility rate.
- *Health*: Despite Japan's life expectancy, the longest in the OECD, the self-evaluation of personal health status is low in Japan, which may reflect work-related stress stemming from the problems in work-life balance.
- *Housing*: Japan ranked 25th, with 77% of people reporting that they are satisfied with their current housing situation, compared to the OECD average of 87%.
- *Environment*: Japan ranked 23rd, reflecting concerns about air pollution.

Figure 23. How does life compare in Japan?¹



1. The rectangles represent the maximum and minimum scores of OECD countries.

Source: OECD (2011b).

Overall, only 40% of the Japanese said that they were satisfied with their life, well below the OECD average of 59% (Figure 23). This may point to genuine problems in Japanese society, or might instead reflect a cultural reluctance to report high scores. Further research is needed in this area. Japan has put improving the quality of people's lives high on its political agenda, including the development of well-being measures in the New Growth Strategy. Around 130 indicators have been developed to assess well-being, focusing on economic and social conditions, physical and mental health, and social relatedness. Based on these indicators, the government conducted a survey in March 2012 (ESRI, 2012), with a second one planned in February 2013. The priority will be to link these indicators to government policies in order to improve people's lives and foster social progress.

Box 5. Summary of recommendations to reduce income inequality and poverty

- Enhance the redistributive power of the tax and benefit systems by increasing the share of net benefits received by low-income households.
- Introduce an earned income tax credit, initially for wage earners, while expanding it to the self-employed as transparency about their income is enhanced.
- Ensure adequate coverage of public assistance and co-ordinate the Basic Livelihood Protection Programme and the "second safety net".
- Provide training programmes for recipients of public assistance who are capable of working, while ensuring that there are incentives to leave assistance.
- Implement a comprehensive strategy to break down labour dualism, including increasing the social insurance coverage of non-regular workers and reducing effective employment protection for regular workers, while upgrading training programmes.
- Ensure access to high-quality early childhood education and care for children from low-income families.
- Reduce reliance on private, after-school lessons, particularly in *juku*, in part by increasing the quality of schools, and increase the accessibility of after-school lessons for students from low-income families.
- Expand public loans for tertiary education to encourage students from low-income households to invest in higher education.
- Build on the national surveys of well-being to identify the priorities and policies to improve well-being.

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