



OECD Economics Department Working Papers No. 1050

# Restoring Japan's Fiscal Sustainability

**Randall S. Jones,  
Satoshi Urasawa**

<https://dx.doi.org/10.1787/5k46cvtkbf33-en>

**Unclassified**

**ECO/WKP(2013)42**

Organisation de Coopération et de Développement Économiques  
Organisation for Economic Co-operation and Development

**23-May-2013**

**English - Or. English**

**ECONOMICS DEPARTMENT**

**ECO/WKP(2013)42**  
**Unclassified**

**RESTORING JAPAN'S FISCAL SUSTAINABILITY**

**ECONOMICS DEPARTMENT WORKING PAPERS No. 1050**

**By Randall S. Jones and Satoshi Urasawa**

All Economics Department Working Papers are available through OECD's Internet website at  
<http://www.oecd.org/eco/workingpapers>

**JT03340044**

Complete document available on OLIS in its original format

*This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.*

**English - Or. English**

## ABSTRACT/RÉSUMÉ

### Restoring Japan's fiscal sustainability

With gross government debt surpassing 200% of GDP, Japan's fiscal situation is in uncharted territory. In addition to robust nominal GDP growth, correcting two decades of budget deficits requires a large and sustained fiscal consolidation based on a detailed and credible multi-year plan that includes measures to control spending and raise revenue. On the spending side, reforms to contain ageing-related outlays are the priority, while the consumption tax should be the main source of additional revenue, given that its impact on economic activity is less negative than other taxes. The plan should target a primary budget surplus large enough to stabilise the public debt ratio by 2020. The fiscal policy framework should be improved to help reinforce confidence in Japan's fiscal position and prevent a run-up in interest rates. Higher consumption taxes should be accompanied by well-targeted social spending, including the introduction of an earned income tax credit, to prevent a rise in inequality and poverty.

This Working Paper relates to the 2013 *OECD Economic Survey of Japan* ([www.oecd.org/eco/surveys/japan](http://www.oecd.org/eco/surveys/japan))

JEL classification: H2, H5, H6.

Keywords: Japanese economy; Abenomics; fiscal policy; public debt; social security; consumption tax; fiscal consolidation; fiscal sustainability; debt dynamics; fiscal management strategy; independent fiscal councils; poverty; inequality; pensions; reconstruction spending.

\*\*\*\*\*

### Rétablir la viabilité des finances publiques au Japon

Avec une dette publique brute dépassant 200 % du PIB, les finances publiques japonaises sont en territoire inconnu. Outre une forte croissance du PIB nominal, il faudra, pour remédier à deux décennies de déficit budgétaire, un assainissement important et soutenu des finances publiques dans le cadre d'un plan pluriannuel détaillé et crédible qui comprenne des mesures visant à limiter les dépenses et accroître les recettes. S'agissant des dépenses, la priorité est donnée aux réformes destinées à contenir les dépenses liées au vieillissement, et l'impôt sur la consommation devra constituer la principale source de recettes supplémentaires puisqu'il a, sur l'activité économique, une incidence moins négative que les autres impôts. Le plan devra viser un excédent budgétaire primaire suffisant pour stabiliser le ratio d'endettement d'ici 2020. Le cadre de la politique budgétaire devra être amélioré pour aider à renforcer la confiance dans les finances publiques japonaises et éviter une remontée rapide des taux d'intérêt. La hausse de l'impôt sur la consommation devra s'accompagner de dépenses sociales bien ciblées, notamment d'une réduction de la fiscalité dur travail, pour empêcher une aggravation des inégalités et de la pauvreté.

Ce Document de travail a trait à *l'Étude économique de l'OCDE du Japon, 2013* ([www.oecd.org/eco/etudes/japon](http://www.oecd.org/eco/etudes/japon)).

Classification JEL : H2, H5, H6.

Mots clés : Économie japonaise ; Abenomics ; politique budgétaire ; dette publique ; sécurité sociale ; impôt sur la consommation ; assainissement budgétaire ; viabilité budgétaire ; dynamique de la dette ; stratégie de gestion budgétaire ; conseils budgétaires indépendants ; pauvreté ; inégalité ; dépenses de reconstruction.

© OECD (2013)

---

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org)

---

## TABLE OF CONTENTS

RESTORING JAPAN’S FISCAL SUSTAINABILITY.....	5
An overview of Japan’s fiscal situation .....	6
Despite exceptionally low interest rates.....	7
...Japan’s fiscal situation is not sustainable .....	9
The impact of recent fiscal developments .....	11
Developments in FY 2011-12 under the Fiscal Management Strategy .....	11
The Great East Japan Earthquake: reconstruction spending and its financing .....	13
The consumption tax rate hike and social security reform .....	15
The fiscal outlook .....	17
The 2013 fiscal package .....	18
An appropriate long-term fiscal target and policies to achieve it.....	20
Controlling spending .....	22
Increasing government revenue .....	26
Improving the fiscal policy framework .....	30
Ensuring that fiscal consolidation does not exacerbate inequality and poverty .....	31
Rising income inequality and relative poverty .....	31
Well-targeted increases in social spending are needed to address rising income inequality .....	34
Conclusion.....	37

### Tables

1. Impact of a rise in interest rates on the banking system.....	11
2. The central government's initial budget.....	12
3. Reconstruction packages and FY 2012 budget following the earthquake .....	14
4. Comprehensive reform of social security and taxes.....	16
5. An illustration of debt dynamics .....	21
6. Projection of social security spending.....	23
7. International comparison of health-care services in 2010 or latest year available.....	25
8. The tax mix in OECD countries.....	28
9. National Diet electoral districts with the highest and lowest voting weight.....	31

### Figures

1. Japan’s fiscal situation has deteriorated sharply over the past 20 years .....	5
2. Public debt in selected OECD countries .....	6
3. Structural characteristics of Japan’s budget balance.....	7
4. Government interest payments have fallen significantly .....	8
5. Long-term government bond holdings.....	9
6. The gap between central government expenditure and tax revenue is widening .....	10
7. The primary budget balance is projected to remain in deficit through 2023 .....	18
8. Public social spending has risen rapidly, driven by pensions and health.....	23
9. Pension reserves have declined faster than expected.....	24
10. Public social spending has risen while revenue fell in Japan.....	27
11. Revenues from environmental taxes are low in Japan .....	29

12.	Taxes and transfers have relatively little impact on income inequality and poverty in Japan .....	32
13.	Assistance to low-income households is low in Japan.....	33
14.	The upward trend in public assistance recipients in Japan.....	35
15.	The regressive nature of the consumption tax and possible policy responses .....	36

**Boxes**

Box 1.	The Fiscal Management Strategy .....	12
Box 2.	Financing reconstruction spending .....	14
Box 3.	The January 2013 fiscal package .....	19
Box 4.	Setting an appropriate fiscal target .....	21
Box 5.	Summary of recommendations to restore fiscal sustainability .....	37

*The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.*

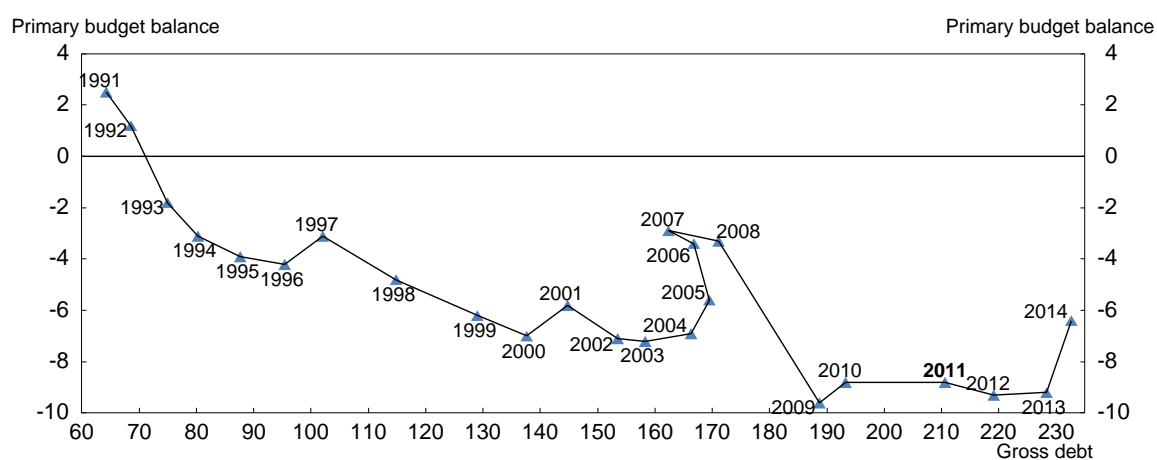
## RESTORING JAPAN'S FISCAL SUSTAINABILITY

By Randall S. Jones and Satoshi Urasawa<sup>1</sup>

Japan's fiscal situation has steadily deteriorated as public debt has risen above 200% of GDP (Figure 1), reflecting rising public spending and falling nominal output, due to deflation and sluggish growth. Under the 2010 Fiscal Management Strategy, the key objective was to eliminate the primary budget deficit of central and local governments – estimated in 2012 at 9% of GDP (on a general government basis) – by 2020, a target maintained by the new government. This would imply rapid fiscal consolidation that would itself hold back nominal GDP growth, making it difficult to stabilise the public debt ratio. The launch of a new fiscal package in January 2013 and the decision to abandon the ceiling on bond issuance in FY 2012 by the new government, which has pledged “fiscal policy flexibility”, creates some uncertainty while it prepares a basic reform programme of economic and fiscal management to be announced in mid-2013. In addition to measures to boost revenue and cut spending, restoring fiscal sustainability requires accelerating output growth and achieving sustained inflation.<sup>2</sup>

**Figure 1. Japan's fiscal situation has deteriorated sharply over the past 20 years**

Primary budget balance<sup>1</sup> and gross government debt as a per cent of GDP on a general government basis<sup>2</sup>



1. Excluding one-off factors, which were about minus 5% of GDP in 1998 and ranged from +0% to +2% of GDP between 2000-14.
2. OECD estimates for 2012 and projections for 2013-14.

Source: OECD Economic Outlook Database.

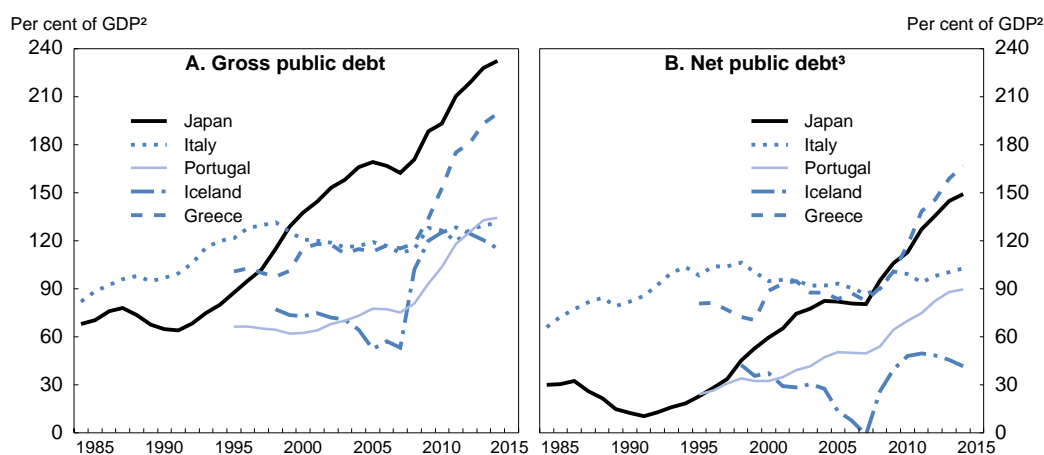
1. Randall S. Jones is head of the Japan/Korea Desk in the Economics Department of the OECD and Satoshi Urasawa is an economist in the Desk. This paper is based on material from the *OECD Economic Survey of Japan* published in April 2013 under the authority of the Economic and Development Review Committee (EDRC). The author would like to thank Andrew Dean, Robert Ford and Vincent Koen and Stephen Matthews for valuable comments on earlier drafts. Special thanks go to Lutécia Daniel for technical assistance and to Nadine Dufour and Pascal Halim for technical preparation.
2. Policies to accelerate output growth and achieve sustained inflation are discussed in Chapter 1 and the Assessment and recommendations, respectively, of the 2013 *OECD Economic Survey of Japan*.

After an overview of Japan's fiscal predicament, this paper reviews the impact of recent fiscal policy developments, including the Fiscal Management Strategy, reconstruction from the 2011 disaster and the tax and social security reform plan. After presenting the 2013 fiscal package and the plans for the FY 2013 budget, the paper discusses what would be an appropriate fiscal target for the next medium-term fiscal plan and how this could be met by limiting spending, increasing revenue and improving the fiscal framework. The paper then considers measures to minimise the adverse impacts of fiscal consolidation on inequality and poverty. Policy recommendations are summarised in Box 5.

### An overview of Japan's fiscal situation

Twenty years of budget deficits have driven gross public debt from 70% of GDP in 1992 to almost 220% in 2012, leaving Japan increasingly vulnerable to a loss of market confidence in the sustainability of its public finances (Figure 2). Moreover, net public debt, at around 135% of GDP in 2012, is the second highest in the OECD after Greece (Panel B). Reconstruction costs related to the 2011 Great East Japan Earthquake and the fiscal package in early 2013 further increase pressure on the already weak fiscal position.

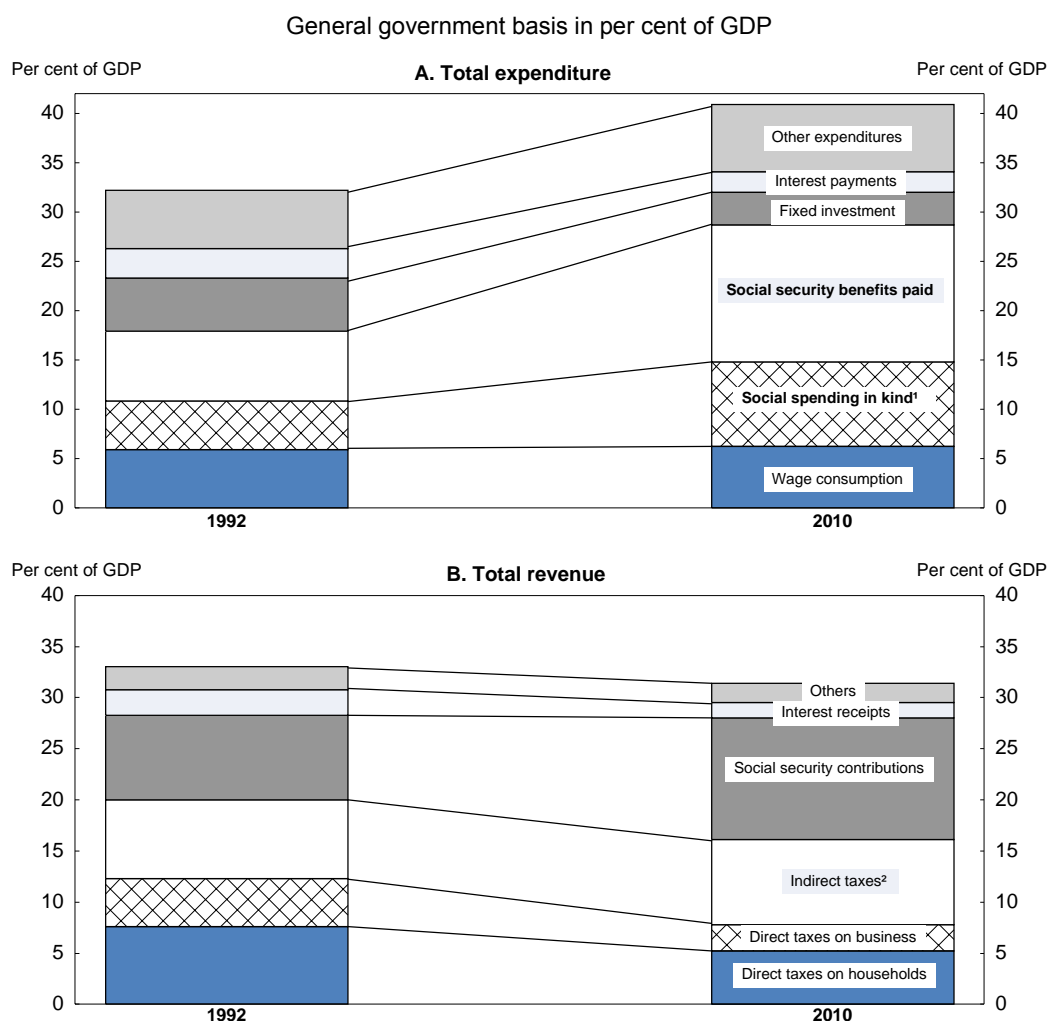
Figure 2. Public debt in selected OECD countries<sup>1</sup>



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 2013-14.

Persistent deficits through periods of expansion and recession alike indicate that the problem is more structural than cyclical in nature. Rising government spending was driven by social security outlays, including cash transfers and in-kind benefits, which expanded by 10.4 percentage points of GDP between 1992 and 2010 (Figure 3), reflecting rapid population ageing. Indeed, the population over age 65 nearly doubled from 21% of the working-age population in 1992 to 39% in 2010, the highest in the OECD. Although rising social security outlays were partially offset by declines in public investment and interest payments, total expenditure has increased by 8.5 percentage points of GDP since 1992.

**Figure 3. Structural characteristics of Japan's budget balance**

1. "Social spending in kind" is calculated from data for FY 1992 and FY 2010. Other government non-wage consumption is included in the category "other expenditures".
2. This includes property taxes based on the SNA definition.

Source: OECD Economic Outlook Database.

Meanwhile, total revenue declined by 1.7 percentage points of GDP between 1992 and 2010, primarily due to the fall in taxes on personal and corporate income from 12% of GDP to 8% (Panel B). In sum, government revenue has been declining even as social security spending is rising sharply. The budget deficit is projected at around 10% of GDP (excluding one-off factors) in 2012 and 2013, pushing gross public debt further into uncharted territory.

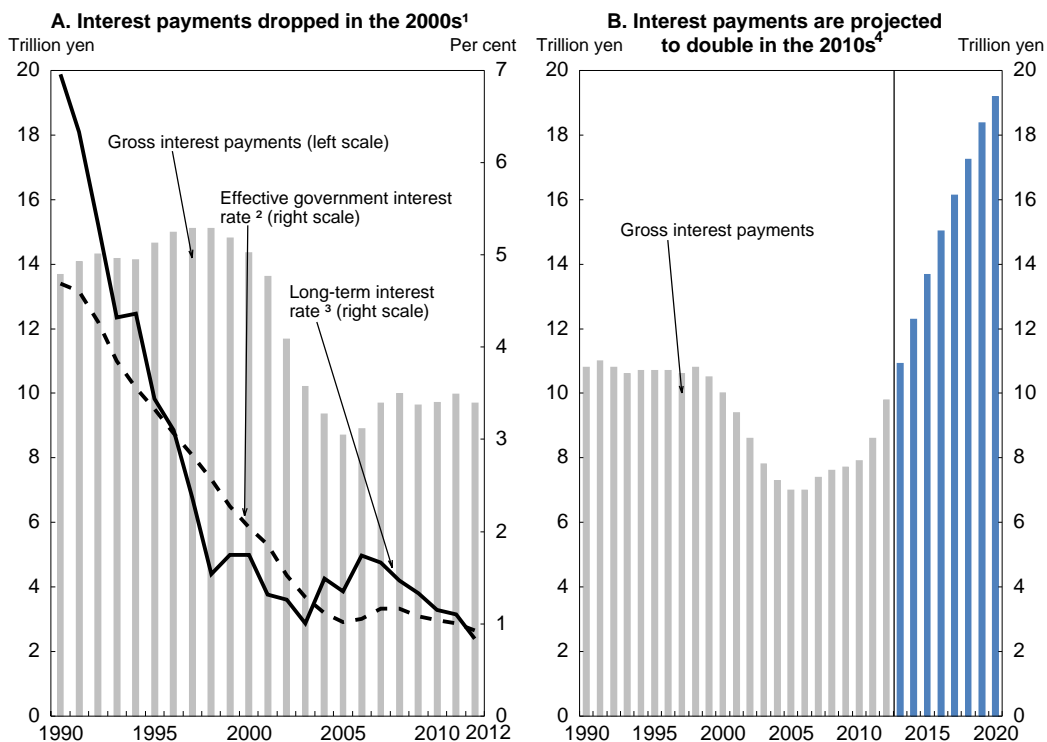
### ***Despite exceptionally low interest rates...***

The impact of rising debt has been mitigated by the low level of long-term interest rates, thus enabling the government to finance deficits at relatively low cost (Figure 4). Indeed, the rate on ten-year government bonds has remained below 2% since 1998, reducing the effective interest rate paid on government gross debt from an average of 4% in the 1990s to only 1% by 2010. The "interest-rate bonus" from refinancing outstanding government debt at lower rates helped cut interest payments from 14 trillion



yen in 1990 to 10 trillion yen in 2010, while gross public debt more than tripled from 292 trillion yen to 936 trillion yen over that period.

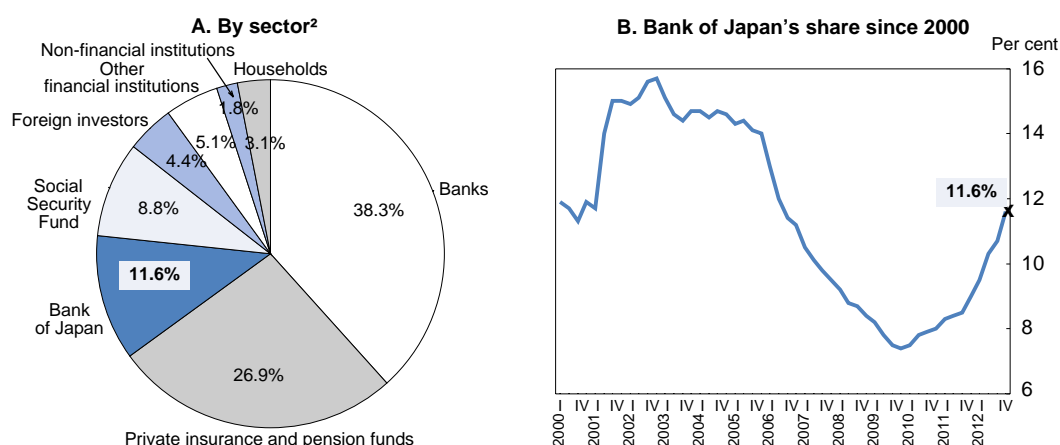
**Figure 4. Government interest payments have fallen significantly**



1. General government, calendar year basis. OECD estimates for interest payments in 2012.
2. Defined as interest payments divided by gross government debt.
3. Ten-year government bonds.
4. Central government general account for fiscal years, based on the final budget for FY 1990-2010; the revised budget for FY 2011; the initial budget for FY 2012; and government projections thereafter. The projection assumes nominal GDP growth of 1.5% during the 2010s. The difference between Panel A and Panel B is primarily due to interest payments by local governments.

Source: Cabinet Office, Ministry of Finance and OECD calculations.

Long-term interest rates remain below 1% in 2013. The exceptionally low level is explained by Japan’s unique economic environment, including the persistence of deflation, the virtually zero policy interest rate since the end of the 1990s and investors’ risk aversion after a prolonged period of economic stagnation. The market has been able to absorb the large quantities of bonds, at low and stable interest rates, thanks in part to ample household financial assets, amounting to around three times the size of GDP and a pronounced home bias, with more than 90% of government debt being held domestically (Figure 5). Banks have increased their government bond holdings by about 10% since 2007 and now hold 38.3% of outstanding bonds. In addition, the Bank of Japan (BoJ) has expanded its purchases of government bonds to 11.6% of the total in the fourth quarter of 2012. Its purchases are to increase further under the 2013 “quantitative and qualitative monetary easing”, which will nearly double purchases of government bonds to 7.5 trillion yen (1.5% of GDP) per month. The central bank is now the third-largest holder of government bonds after banks and private insurance and pension funds.

Figure 5. Long-term government bond holdings<sup>1</sup>

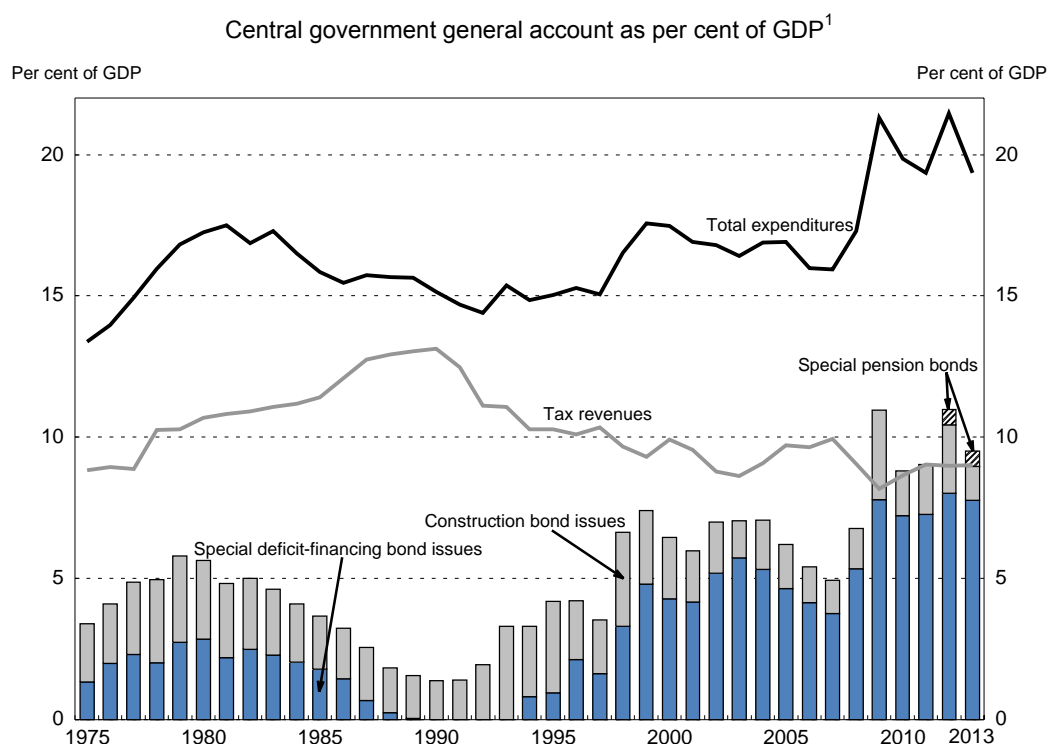
1. Panel A refers to the fourth quarter of 2012, when the total amount of bonds amounted to 785 trillion yen (166% of GDP), including Fiscal Investment and Loan Programme (FILP) bonds.
2. Central and local governments hold 0.1% of the total.

Source: Bank of Japan.

### ***...Japan's fiscal situation is not sustainable***

Central government bond issuance exceeded tax revenue in FY 2009-10 and again in the FY 2012 initial budget (Figure 6). In the initial budget for FY 2013, tax revenue exceeds borrowing if special pension bonds are excluded. In addition to new debt, the government expects to issue 112 trillion yen (nearly one-quarter of GDP) of refinancing bonds in FY 2013. Looking ahead, Japan faces ongoing public spending pressures, notably for social security, due to rapid population ageing. The Cabinet Office's long-term projections made in 2012 showed the primary budget (central and local governments) remaining in deficit through 2023, even assuming the planned hike in the consumption tax rate to 10% and spending restraint (see below). The further increase of public debt into uncharted territory raises the possibility of a rise in the risk premium on government bonds.

In any case, interest rates are likely to rise as the exceptional factors keeping them low fade. For example, the growth of household financial assets is slowing in the context of population ageing and eventually they are likely to decline. According to one study, public debt could surpass household financial assets within a decade, leading to higher interest rates (Hoshi and Ito, 2012). Indeed, the authorities project that the effective interest rate paid on government debt will double to 2% by FY 2020, boosting interest payments by the central government alone from 10 trillion yen in FY 2012 to 19 trillion in FY 2020 (Figure 4, Panel B). Another government study concludes that a one percentage-point increase in short-term interest rates would push up long-term interest rates by 50 basis points over a five-year period. This would reduce real GDP by an annual average of 0.4%, while increasing the budget deficit by 2.5 trillion yen (0.5% of GDP) (CAO, 2010a).

**Figure 6. The gap between central government expenditure and tax revenue is widening**

1. This figure shows 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 issued to finance it) and the initial FY 2013 budget. Reconstruction spending and reconstruction bond issuance are excluded for FY 2011-13.

Source: Ministry of Finance and OECD calculations.

A significant rise in government bond yields would seriously hurt financial institutions. Indeed, government bonds now account for almost a quarter of bank assets. The International Monetary Fund (IMF) concluded that major Japanese banks could handle “moderately large shocks to government bond prices”, although they could pose “sizable risks” to regional banks (IMF, 2012). The BoJ’s 2012 *Financial System Report* reached a similar conclusion: a two percentage-point rise in the yields on all maturities, in tandem with a matching rise in inflation, would result in a 12.6 trillion yen (2.5% of GDP) loss for the banking system during the following year, reducing Tier-1 capital ratios by an average of 0.5 percentage point for major banks and by 1.0 point for regional banks (Table 1).<sup>3</sup> However, the losses would vary between institutions, with more than 20% of banks suffering declines of more than 2 percentage points (BoJ, 2012).

The large losses on bond holdings would induce banks to restrict lending to restore their capital adequacy ratios, with negative consequences for growth. For example, the drop in bank loans outstanding resulting from a 200 basis-point rise in interest rates would reduce nominal output growth by as much as 1.8 percentage points (BoJ, 2012), in turn creating additional concerns about the stability of the banking sector. The risks associated with Japanese banks’ massive holdings of government bonds thus merit close attention, particularly as those holdings are projected to rise to 30% of bank assets by 2017 (IMF, 2012).

3. A one percentage-point increase in the yields on all maturities would be largely offset by unrealised gains on securities and bond holdings, according to the Bank of Japan.

**Table 1. Impact of a rise in interest rates on the banking system**One year after a rise in interest rates<sup>1</sup>

	Upward shift in interest rates by:		
	1% point	2% points	3% points
<b>A. Major banks</b>			
Capital losses in bond holdings <sup>2</sup>	3.7	7.0	10.3
Tier-I capital ratio (%) <sup>3</sup>	12.6	12.1	11.4
Change (percentage points)	0.0	-0.5	-1.2
<b>B. Regional banks</b>			
Capital losses in bond holdings <sup>2</sup>	3.0	5.6	8.1
Tier-I capital ratio (%) <sup>3</sup>	9.9	9.0	8.0
Change (percentage points)	-0.1	-1.0	-2.0

1. Assumes a parallel shift in interest rates for all maturities, with inflation rising by the same amount as interest rates.
2. In trillion yen. Losses would be larger for regional banks, which usually lend at fixed rates, than for major banks, which lend a large amount at floating rates.
3. In March 2012, 12.6% for major banks and 10.0% for regional banks.

Source: Bank of Japan (2012).

A high level of public debt may have adverse effects on economic growth. One study found that a 10 percentage-point increase in debt beyond 90% of GDP reduces annual real per capita GDP growth by 0.2 percentage point (Kumar and Woo, 2010). Other studies identify a negative non-linear effect at debt levels of 77% of GDP (Caner *et al.*, 2010), 66% (Elmeskov and Sutherland, 2012) and 20% (Égert, 2012). Japan may experience such a negative effect on growth as the factors responsible for low interest rates fade away. The challenge for Japan is to reduce the structural budget deficit and boost nominal GDP growth before the period of low interest rates ends. Otherwise, rising interest payments on the accumulated debt would lead to a sharp deterioration in the fiscal situation, resulting in serious damage to the real economy.

### The impact of recent fiscal developments

Some improvement in the fiscal situation was achieved between 2002 and 2007 during Japan's longest expansion in its post-war history. However, the severe recession in 2008-09 in the wake of the global financial crisis quickly reversed the progress. This section analyses the impact of the Fiscal Management Strategy, the March 2011 Great East Japan Earthquake and tax and social security reform on the fiscal outlook.

#### *Developments in FY 2011-12 under the Fiscal Management Strategy*

The Fiscal Management Strategy, announced in June 2010 (NPU, 2010), set a number of numerical targets to enhance the credibility of the government's commitment to fiscal consolidation (Box 1). These targets were maintained after the 2011 disaster, although reconstruction spending was excluded from the Strategy, and accepted by the new government. While the initial budgets for FY 2011 and FY 2012 were consistent with the Strategy, the final outcomes exceeded the targets.

The initial budget in FY 2011 met the targets for primary spending and bond issuance (Table 2, Column B). Increased spending on social security was offset by cuts in other spending, notably public investment and transfers to local governments, keeping spending at the FY 2010 level of 70.9 trillion yen. On the revenue side, an increase in tax revenue in the initial FY 2011 budget was to offset the fall in non-tax revenue, leaving bond issuance at 44.3 trillion yen. As for the FY 2011 budget outcome, primary spending – excluding reconstruction outlays – overshot the initial budget by 1.1 trillion yen. However, it was more than offset by higher-than-expected revenue, reducing bond issuance below the 44 trillion yen

ceiling. If reconstruction spending and bond issuance were included in the general account, spending and borrowing would have each exceeded their ceilings by about 10 trillion yen (2% of GDP).

### Box 1. The Fiscal Management Strategy

The objective was to stabilise and eventually reduce the public debt ratio. The Strategy was based on a rolling three-year medium-term framework that was revised in August of 2011 and 2012 (covering FY 2013-15).

- *A short-term target:* limit new government bond issuance to the previous fiscal year. In practice, this has meant constraining bond issuance to the FY 2010 level of 44 trillion yen (9% of GDP).
- *A medium-term target:* halve the primary budget deficit of central and local governments, which was 6.4% of GDP in FY 2010, by FY 2015. To meet the target, central government spending in the general account (excluding debt repayment and interest) was to be kept to the previous fiscal year. This has meant limiting spending to 71 trillion yen, the level in the initial budget for FY 2010. However, the spending cap has excluded reconstruction spending. On the revenue side, the Strategy called for multi-year measures, including hikes in the consumption tax. Additional revenue that is secured through permanent tax reforms could be added to the overall expenditure limit. However, if additional tax revenue were temporary, it was to be used to reduce government bond issuance rather than increase outlays. This principle should prevent using unexpected tax revenue to finance supplementary spending, although this occurred in FY 2011 and FY 2012.
- *A long-term target:* achieve a primary budget surplus for central and local governments by FY 2020, putting the public debt ratio on a downward trend from FY 2021.

In addition, the Strategy established a number of basic principles for fiscal management:

- A pay-as-you-go rule, which requires the government to secure permanent revenue sources to finance new spending programmes (including ageing-related outlays) and tax reductions.
- Annual reductions in the budget deficit to achieve the medium-term targets.
- Reductions in wasteful spending, including in the special accounts, to allow flexibility in budget allocation.
- Co-operation between central and local governments to achieve fiscal consolidation and avoid shifting financial burdens to local governments.

**Table 2. The central government's initial budget**

Central government general account in trillion yen for fiscal years

	Per cent			Per cent			Per cent	
	(A) 2010 <sup>1</sup>	(B) 2011 <sup>1</sup>	change (B/A)	(C) 2012 <sup>2</sup>	(D) 2012 <sup>3</sup>	change (D/B)	(E) 2013 <sup>3</sup>	change (E/D)
Total expenditures	92.3	92.4	0.1	90.4	92.9	0.6	92.6	-0.3
Debt servicing	20.6	21.5	4.4	21.9	21.9	1.8	22.2	1.4
Primary spending <sup>4</sup>	70.9	70.9	-0.1	68.4	71.0	0.2	70.4	-0.9
<i>of which:</i>								
Social security	27.3	28.7	5.3	26.4	29.0	1.1	29.1	0.5
Transfers to local government	17.5	16.8	-4.0	16.6	16.6	-1.1	16.4	-1.2
Public investment	5.8	5.0	-13.8	4.6	4.6	-8.1	5.3	15.6
Total revenue	92.3	92.4	0.1	90.4	92.9	0.6	92.6	-0.3
Taxes	37.4	40.9	9.4	42.3	42.3	3.5	43.1	1.8
Non-tax revenues	10.6	7.2	-32.2	3.7	3.7	-47.9	4.1	8.3
Borrowing (public bonds)	44.3	44.3	0.0	44.2	46.8	5.8	45.5	-2.9

1. Including the government's contribution to the basic pension system, which amounted to around 2.6 trillion yen (0.6% of GDP).
2. Excluding the government's contribution to the basic pension system and the "special pension bonds" used to finance it.
3. Including the government's contribution to the basic pension system and the "special pension bonds" used to finance it.
4. Total spending minus debt servicing.

Source: Ministry of Finance.

The initial FY 2012 budget also met the spending target by reducing public investment and transfers to local governments enough to offset rising social security spending (Table 2, column D).<sup>4</sup> The revenue side was more problematic due to a significant decline (3.5 trillion yen) in non-tax revenue. To meet the 44 trillion yen bond issuance target, the authorities created a new type of bonds – special pension bonds – to finance the government's 2.6 trillion yen contribution to the basic pension plan. However, without this accounting change, bond issuance increased to 46.8 trillion yen (column D), even before taking account of 2.7 trillion in reconstruction bonds. Moreover, on an outcome basis, spending and bond issuance far exceeded the ceilings in FY 2012 with the launch of a large fiscal package in early 2013.

### ***The Great East Japan Earthquake: reconstruction spending and its financing***

Japan also faces the cost of reconstruction in areas devastated by the 2011 Great East Japan Earthquake (see Chapter 1 of the 2013 *OECD Economic Survey of Japan*). The 2011 *Basic Guidelines for Reconstruction* estimated that at least 23 trillion yen (almost 5% of 2011 GDP) would be needed over the next decade, with 19 trillion yen to be spent by 2016. The government launched packages in May, July and November 2011, amounting to 0.9%, 0.4% and 2.6% of GDP, respectively (Table 3):<sup>5</sup>

- The May package aimed at responding to immediate reconstruction needs, such as temporary housing and infrastructure, including roads and ports.
- The July package provided additional financial support, including measures to ease the debt burdens of individuals and firms, as well as to promote investment by small firms in the devastated areas.
- The November package expanded transfers to local governments in devastated areas to support their reconstruction efforts.

In addition, the FY 2012 budget included 3.8 trillion yen of reconstruction spending. Excluding spending in the packages not related to reconstruction, the three packages and the FY 2012 budget contained a total of about 17 trillion yen (3.6% of GDP) of reconstruction spending,<sup>6</sup> close to the five-year target of 19 trillion yen. The financing of reconstruction is explained in Box 2.

---

4. The screening process by the Government Revitalisation Unit (GRU) helped to limit spending. In 2009, the GRU screened 449 government programmes, leading to 1 trillion yen in spending cuts (1.4% of central government primary spending). In addition, it generated 1 trillion yen in non-tax revenue by requiring incorporated administrative agencies and public service corporations to refund surplus funds. The second round in the spring of 2010 examined 117 public service corporations and 233 programmes, followed by a third round that examined all 51 special accounts. The second and third rounds cut spending by another 0.4 trillion yen and secured another 1.4 trillion yen in non-tax revenue. In addition, the number of special accounts was reduced. The fourth round in 2011 reviewed ten policy areas.

5. In addition to three reconstruction packages, the government implemented a fourth supplementary budget of around ½ per cent of GDP in December 2011, in part to cope with the impact of yen appreciation.

6. The total for reconstruction (17 trillion yen) is obtained by excluding non-reconstruction spending included in the three packages and the FY 2012 budget, such as the cost of the government paying back its contribution to the basic pension fund (2.5 trillion yen), responding to the impact of yen appreciation (2 trillion yen) and the cost of recovering from the damage caused by a typhoon (0.3 trillion yen). The 17 trillion yen does not include some reconstruction-related expenditures, notably decontamination spending, which will be reimbursed by TEPCO.

**Table 3. Reconstruction packages and the FY 2012 budget following the earthquake**

Spending in trillion yen

Category	May 2011	July 2011	November 2011	FY 2012 budget
Disaster relief, including clearing disaster waste	0.8	-	0.5	0.4
Public works (to restore public facilities)	1.6	-	1.5	0.5
Financial measures <sup>1</sup>	0.6	0.4	0.7	0.1
Grants to local government	0.1	0.5	3.2	0.8
Nuclear accident-related spending	-	0.3	0.4	0.5
Other <sup>2</sup>	0.8	0.8	5.9 <sup>3</sup>	0.9
Total	4.0	2.0	12.1	3.8 <sup>4</sup>
<b>Total as per cent of GDP</b>	<b>0.9</b>	<b>0.4</b>	<b>2.6</b>	<b>0.8</b>
<b>Impact on GDP growth (government estimate)</b>	<b>0.7</b>	<b>0.3</b>	<b>1.7</b>	<b>0.5</b>

1. Includes income support to households, as well as measures to ease the debt burdens on individuals and firms.
2. Includes reserves for future emergency spending and measures to prevent national disasters.
3. Includes non-reconstruction spending, such as paying back the 2.5 trillion yen borrowed from the basic pension system to finance the May package, 0.3 trillion yen for typhoon damage, and 2 trillion to respond to the impact of yen appreciation.
4. Includes reserves for reconstruction (0.4 trillion yen) and transfers to special accounts (0.1 trillion yen).

Source: Cabinet Office, Ministry of Finance and OECD calculations.

However, by mid-2012, about half of the approved reconstruction appropriations had been spent. The spending pace is somewhat slower than initially expected, in part reflecting problems in the relationship between the central government and local governments in Tohoku. While the government is including more reconstruction spending in the January 2013 fiscal package and in the FY 2013 budget, ensuring the implementation of already approved budgets is more important than creating a new budget plan. However, the new government decided to boost reconstruction spending by another 6 trillion yen (1.3% of GDP), with 1.6 trillion yen in the January 2013 fiscal package and 4.4 trillion yen in the FY 2013 budget (see below). Reconstruction spending in FY 2011-15 is thus revised up to 25 trillion yen.

### Box 2. Financing reconstruction spending

The government stated in 2011 that, "The financial cost for recovery and reconstruction shall basically be borne by the entire current generation (...) and not be left as a cost of future generations" (Government of Japan, 2011a). The first two packages, amounting to 6 trillion yen, were financed without additional borrowing, in line with the Fiscal Management Strategy's target of restricting bond issuance in FY 2011 to its FY 2010 level of 44 trillion yen. They were instead financed by *i*) borrowing 2.5 trillion yen from the basic pension system; *ii*) reducing other planned spending; *iii*) using the surplus from FY 2010; and *iv*) the reserve fund in the FY 2011 budget.

To finance spending beyond the first two packages, the government issued 10.5 trillion yen of "reconstruction bonds", which are managed under a separate account that was excluded from the Fiscal Management Strategy, as noted above. These bonds will be redeemed by temporary tax hikes:

- Surcharges on personal income (7.3 trillion yen), beginning in 2013 and lasting up to 25 years.
- Surcharges on corporate income (2.4 trillion yen) between FY 2012 and FY 2014, which will offset the decision taken in FY 2011 to cut the corporate tax rate (national plus local) from 40% to 35%.
- An increase in the personal income tax levied by local governments (0.8 trillion yen).

Additional resources for reconstruction will be provided by 3 trillion yen of spending cuts, including a reduction in the child allowance, and another 2 trillion yen will be raised through the sale of state-owned assets. In sum, all of the 19 trillion yen in reconstruction spending in 2011-16 will be financed without issuing conventional government bonds, leaving reconstruction outside of the Fiscal Management Strategy. The additional 6 trillion yen proposed by the new government will be financed by the sale of government shares in Japan Post Holdings (about 4 trillion yen) and by other sources, including expected cash surpluses carried over from previous years (amounting to about 2 trillion yen) over 2013-15, thereby avoiding additional tax hikes.

The government estimated that the three packages and the FY 2012 budget together have boosted real GDP by around 3%, primarily during FY 2011-12 (Table 3). Meanwhile, the negative impact of the temporary tax hikes is estimated to be negligible at only around 0.1% of GDP. Although reconstruction spending will eventually be covered by tax increases over the next 25 years (Box 2), it is exacerbating the current fiscal predicament. Indeed, the OECD estimates that the general government deficit in cyclically-adjusted terms widened from 7.9% of GDP in 2010 to 9.7% in 2012.

### ***The consumption tax rate hike and social security reform***

The Diet passed legislation in August 2012 to increase the consumption tax rate in two stages, from the current 5% to 8% in April 2014 and 10% in October 2015. However, the hike, which would be the first one since 1997, is conditional on “an improvement in economic conditions”, which is to be assessed on a range of factors, although the bill does not spell out any numerical criteria to guide this assessment. While the hike of the consumption tax rate is stipulated by law in the context of an improvement in economic conditions, the government is required to:

- Implement comprehensive measures, together with other necessary actions, to bring the economy closer to a desirable rate of economic growth, aiming at achieving a nominal economic growth rate of 3% and a real economic growth rate of 2% at an annual average pace over the decade FY 2011-20, by overcoming deflation and revitalising the economy.
- When flexible fiscal policies are possible, consider necessary measures for Japan’s economic growth, in part by allocating financial resources to areas of the growth strategy, as well as disaster prevention and minimising the damage from disasters.
- From the perspective of responding to major changes in economic and fiscal conditions in a flexible manner, the government will judge economic conditions in a comprehensive way by examining various economic factors, including the nominal and real growth rates and price developments, together with the two points mentioned above. The government will then take necessary measures, which may include a suspension of the tax hike.

The government is required to make a final decision based on a comprehensive review of the economic situation about half a year before the planned hike. The 10% tax rate would generate additional receipts of about 13.5 trillion yen (2.7% of 2015 GDP) (Table 4).

About one-fifth of the increased revenue is to be used to finance additional social security spending announced in 2011. The plan set out four basic principles aimed at improving the quality and efficiency of the system: *i*) avoiding a further widening of income disparities and social exclusion; *ii*) putting in place a high-quality and sustainable system; *iii*) narrowing the inter- and intra-generational gap in benefits and burdens; and *iv*) achieving a strong economy, robust public finances and a strong social security system (Government of Japan, 2011b). To help achieve these goals, the government will increase spending on childcare, health and long-term care and pensions by 2.7 trillion yen. Given that reforms are expected to result in 1.2 trillion yen in savings, 3.8 trillion yen will be available for additional spending. The major initiatives in the social security reform include:

- Upgrading early childhood education and care (ECEC) services by increasing investment, while promoting the establishment of “Centres for ECEC” (*Nintei Kodomo-en*), which provide childcare and kindergarten services.
- Relaxing the qualifications for basic pension eligibility by reducing the minimum period of pension premium payments from the current 25 years to ten.



- Expanding the coverage of part-time workers in the employees' pension insurance (EPI) by relaxing the eligibility requirement from workers earning more than 98 000 yen (about \$1 025) per month to those earning more than 88 000 yen (about a third of the average wage).
- Integrating the pension schemes of civil servants and private-school teachers with the EPI by matching pension benefits and premium payments under both schemes.

**Table 4. Comprehensive reform of social security and taxes**

In FY 2015

	Trillion yen	Consumption tax rate increase equivalent (in percentage points) <sup>1</sup>
<b>Total</b>	<b>13.5</b>	<b>5.0</b>
Introducing additional spending programmes	2.7	1.0
<i>Of which</i>		
Increase childcare services	0.6	0.2
Medial and long-term care services <sup>2</sup>	1.6	0.6
Pension benefits to low-income elderly	0.6	0.2
Funding existing commitments for social security spending	10.8	4.0
Securing a sound funding source for basic pensions	2.9	1.0
Financing other social security spending commitments	7.0	2.7
Increases in social security spending associated with the consumption tax hike	0.8	0.3

1. Calculations by the OECD.

2. To provide high-level hospital and in-home care and reduce payments for health insurance premiums.

Source: Ministry of Finance.

These priorities are in line with past OECD recommendations. *First*, greater investment in ECEC, as discussed in the chapter on education in the 2011 *OECD Economic Survey of Japan*, can generate large returns by increasing the quality of childcare, which has a positive impact on children's development, while favouring female labour force participation. In addition, providing high-quality services to children from low-income families promotes social cohesion. The integration of childcare and kindergarten, an objective of the 2010 New Growth Strategy, would improve quality while reducing administrative costs. *Second*, relaxing qualifications for basic pension eligibility would encourage participation in the system. However, it would increase the number of elderly with low pensions, who may need to be supported by other measures. *Third*, expanding the coverage of the EPI would help reduce firms' incentives to hire non-regular workers, as noted in the labour market chapter in the 2011 *OECD Economic Survey of Japan*. *Fourth*, integrating the occupational pension schemes with the EPI would promote labour mobility. However, social security reform should incorporate more cost-saving measures, notably reforming the fee schedule for health and long-term care and cutting public assistance for medical bills for high-income elderly, as suggested in the Draft Plan of Social Security and Tax Reform (Government of Japan, 2011b). To promote reform, the Act for Promotion of Social Security Reform in August 2012 created a national council composed of experts on social security in the Cabinet. The government is required to take legislative measures by August 2013 based on the council's discussions.

The remaining 10.8 trillion yen (about 2% of GDP) raised by the consumption tax hike will finance existing social security spending, thereby reducing the deficit.<sup>7</sup> In particular, it will provide a permanent source for the government's contribution to the basic pension system (2.9 trillion yen in 2015), thus ending

7. As noted in Table 4, 800 billion yen will be used to finance the increase in social security benefits and thus will not reduce the deficit.

the reliance on stopgap measures, such as requiring the Japan Railway Construction, Transport and Technology Agency to return its surplus in FY 2011 and the special pension bonds issued in FY 2012-13. The tax hike will also be used to finance the rise in social security benefits due to the increase in the consumer price index resulting from the consumption tax hike (Table 4). The government also decided to strengthen the progressivity of the tax system by raising the top rate of the personal income tax from 40% to 45% and the top rate of the inheritance tax from 50% to 55%, while reducing the basic deduction of the inheritance tax. However, increasing the redistributive power of the tax system should focus on broadening the tax base rather than on increasing rates (see below).

### *The fiscal outlook*

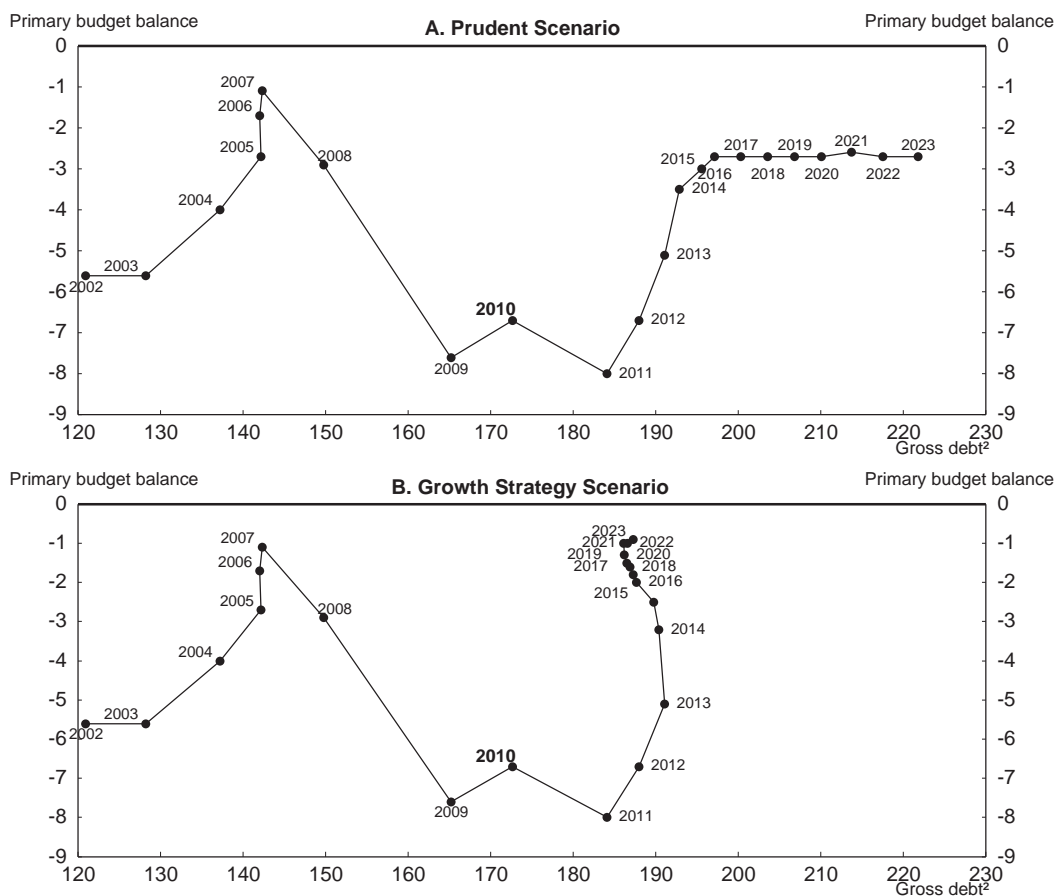
The planned increase in the consumption tax and the spending ceilings imposed by the Fiscal Management Strategy were judged to be sufficient to meet the Strategy's target of reducing the primary budget deficit to 3.2% of GDP in FY 2015, according to the projection made by the Cabinet Office in August 2012 (Figure 7). However, even before the January 2013 fiscal package, the primary budget was expected to remain in deficit through FY 2023 under both scenarios in the projection, even assuming that primary spending, excluding social security, was constant after FY 2015:

- In the “prudent scenario” (Panel A), which assumes nominal GDP growth of around 1½ per cent over the next decade, the primary budget deficit was projected to level off at around 3% of GDP in FY 2015. Consequently, the public debt ratio was to rise by about 40% of GDP by 2023.
- The “Growth Strategy scenario” (Panel B) assumed a real growth rate of around 2% over the next decade through the implementation of reforms and a nominal GDP growth rate of 3% by overcoming deflation. Even with faster growth, the primary budget was projected to remain in deficit at about 1% of GDP in FY 2023.

Both scenarios thus assumed that nominal GDP, which has declined at a ¾ per cent annual rate during the past decade, achieves positive growth. The prudent scenario was the more realistic baseline, given the difficulty of achieving an average of 2% real growth. Indeed, the Cabinet Office estimate of potential growth is 0.9% (Cabinet Office, 2012), which is close to the OECD estimate.

**Figure 7. The primary budget balance is projected to remain in deficit through 2023<sup>1</sup>**

Primary budget balance of central and local governments and gross debt as a per cent of GDP



1. The projections include a “prudent scenario” and a “Growth Strategy scenario”, based on different assumptions about productivity, the labour force and world growth. The projections assume that primary spending is frozen in nominal terms during FY 2013-15. During the following years, primary spending, excluding social security outlays, is assumed to be constant in real terms.
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 based on general government as defined in 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).

### The 2013 fiscal package

With Japan having fallen into recession for the third time in five years, the new government in its first month in office introduced a stimulus package of 10.3 trillion yen (2.2% of GDP) in January 2013 that it expects to lift real GDP by around 2% (Box 3). The supplementary budget for the package is expected to total 13.1 trillion yen, as it includes the government’s 2.6 trillion yen contribution to the basic pension. The economic impact of the package on growth will facilitate a decision to implement the consumption tax hike as planned.

### Box 3. The January 2013 fiscal package

There are three main priorities in the latest fiscal package:

#### I. Reconstruction of the Tohoku region and disaster prevention (3.8 trillion yen);

##### A. Acceleration of reconstruction efforts (1.6 trillion yen)

- i). Building and improving the social infrastructure, facilitating the settlement of residents, etc.
- ii). Restoring industries and creating employment opportunities
- iii). Promoting swift recovery from the nuclear plant disaster

##### B. Strengthening the resilience of infrastructure for better disaster prevention (2.2 trillion yen)

- i). Rebuilding ageing infrastructure that protects lives and livelihood
- ii). Developing protective measures against disasters to ensure the functioning of key social infrastructure
- iii). Disaster prevention measures to improve the quake-resistance of schools and address the ageing of buildings
- iv). Strengthening the large-scale disaster response systems

#### II. Measures to promote industrial competitiveness and innovation (3.1 trillion yen)

##### A. Stimulating private investment (1.8 trillion yen)

- i). Encouraging business investment, including to promote energy savings and renewable energy, in part by providing subsidies
- ii). Promoting R&D and innovation
- iii). Improving infrastructure that will help strengthen international competitiveness
- iv). Resource and oceanic development

##### B. Measures for small and medium-sized enterprises (SMEs) and agriculture, forestry and fisheries (0.9 trillion yen)

- i). Fostering SMEs and small-scale businesses
- ii). Improving the competitiveness of agriculture, forestry and fisheries through aggressive promotion, including expanding exports.

##### C. Facilitating the expansion of Japanese businesses in overseas markets (0.1 trillion yen)

- i). Creating a public-private fund to promote mergers and acquisitions by Japanese firms abroad

##### D. Promoting human capital development and employment (0.3 trillion yen)

#### III. Promoting the security of daily life and regional revitalisation (3.1 trillion yen)

##### A. Ensuring a sense of security in daily life (0.8 trillion yen)

- i). Improving the health-care system
- ii). Ensuring the security of students and promoting measures to support parents in raising children
- iii). Promoting a safer and higher quality living space and facilitating the creation of a recycling society
- iv). Achieving a sense of national security

##### B. Revitalising regions by making use of local assets (0.9 trillion yen)

- i). Promoting tourism
- ii). Developing policies to revitalise public transport and other measures
- iii). Revitalising regional economies using local assets and accelerating the construction of resident-friendly communities
- iv). Promoting the renovation of regional cities and compact cities

##### C. Supporting local government funding and ensuring swift implementation of emergency measures (1.4 trillion yen)

Source: Government of Japan (2013).

Given signs of renewed growth in early 2013, the fiscal stimulus package raises a number of concerns. *First*, with public works spending accounting for almost one-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 aims 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 by 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 discussed above is a positive sign. *Third*, even if the package in FY 2012 lifts growth, it further enlarges the already large fiscal consolidation needed to achieve the FY 2015 primary deficit target of 3.2% of GDP that the new government has retained. 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, 2012b).

The draft budget for FY 2013 reduces general account expenditures by 0.3% (Table 2), the first decline in seven years, underscoring the new government's intention to maintain fiscal discipline. Consequently, primary spending is to be kept below the 71 trillion yen ceiling set by the Fiscal Management Strategy for the third straight year on an initial budget basis. Public investment is to rise by more than 15%, reflecting the new government's emphasis on strengthening infrastructure. This will be offset by eliminating contingency funds and cutting transfers to local government. On the revenue side, tax receipts were expected to increase by 1.8% in the context of an economic recovery. Nevertheless, borrowing continues to account for about half of central government revenue, in addition to 112 trillion yen of refinancing bonds in FY 2013.

### **An appropriate long-term fiscal target and policies to achieve it**

The Fiscal Management Strategy called for a primary budget surplus for central and local governments by FY 2020 without specifying a numerical target and the new government has said that it will keep that target. It is crucial that the new government's fiscal strategy set a target high enough to stabilise the debt ratio. The appropriate target depends on the gap between the nominal interest rate and the nominal growth rate, and the debt ratio (Box 4). The government's long-term projection has a 1.2 point gap in FY 2020. If the gap between the interest rate and nominal growth were to be 1½ percentage points, Japan's average gap recorded between 1981 and 2011, Japan would need a primary budget surplus of around 3.9% of GDP just to stabilise the debt ratio, with a larger budget surplus necessary to start reducing it. Given that the primary budget balance was projected to remain in deficit at 3% of GDP in FY 2020 under the "prudent scenario" (Figure 7), achieving a 3.9% of GDP surplus implies an improvement of 6.9% of GDP just to stabilise the debt ratio (Table 5) and even more to achieve its goal of reducing it from FY 2021. However, achieving faster nominal growth, either through inflation or higher real output, would reduce the size of the primary budget surplus necessary to stabilise the debt ratio and, moreover, would stabilise it at a lower level.

As noted above, the Fiscal Management Strategy targeted the primary balance of central and local governments, even though the evolution of public debt depends on the general government balance, which includes the social security balance. The social security balance has been in deficit every year since FY 2002, averaging 0.6% of GDP, and the Cabinet Office's long-term projections imply that it will remain in deficit every year through FY 2021. Bringing the social security system into balance increases the amount of fiscal consolidation necessary to stabilise the public debt ratio.

**Box 4. Setting an appropriate fiscal target**

The evolution of the debt ratio is sensitive to nominal output growth and the gap between the nominal interest rate and the nominal growth rate, as illustrated in Table 5. In this mechanical calculation, the primary budget deficit is assumed to remain at 3% of GDP through 2020, as projected in the government's "prudent scenario", even as nominal output growth varies due to changes in inflation, while real output growth remains at 1%. Such an assumption may be reasonable for Japan, given that the impact of inflation on the primary budget balance (D), shown in the following equation, is close to nil:

$$\Delta D = g[bX - aR] = gR [b (X/R) - a], \text{ where}$$

g = nominal economic growth

b = elasticity of spending, *i.e.* rise in spending due to a 1% rise in nominal growth (estimated at close to 1.0)

X = primary spending

a = elasticity of tax, *i.e.* rise in tax revenue due to a 1% rise in nominal growth (estimated at about 1.1)

R = tax revenue

The ratio of primary spending to revenue (X/R) in Japan is about 1.1, implying that the primary balance is little affected by changes in inflation.

**Table 5. An illustration of debt dynamics**  
On a general government basis through 2020<sup>1</sup>

<b>A. Level at which debt-to-GDP ratio is stabilised (% of GDP)<sup>2</sup></b>					
Gap between interest rate and nominal growth <sup>3</sup>	Nominal growth rate (per cent at an annual average rate through 2020)				
	<b>-0.75</b>	<b>1.5</b>	<b>3.0</b>	<b>5.0</b>	<b>10.0</b>
0.0	284	248	227	202	153
<b>1.5</b>	298	<b>261</b>	239	<b>213</b>	161
3.0	314	274	251	224	169
4.5	330	288	264	235	178

<b>B. Improvement in the primary budget surplus needed to stabilise the debt-to-GDP ratio (% of GDP)</b>					
Gap between interest rate and nominal growth <sup>3</sup>	Nominal growth rate (per cent at an annual average rate through 2020)				
	<b>-0.75</b>	<b>1.5</b>	<b>3.0</b>	<b>5.0</b>	<b>10.0</b>
0.0	3.0	3.0	3.0	3.0	3.0
<b>1.5</b>	7.5	<b>6.9</b>	6.6	<b>6.2</b>	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. The interest rate is the government's effective borrowing rate.

Source: OECD Economic Outlook Database and OECD calculations.

A 3% primary deficit through 2020 in the government's "prudent scenario" of 1.5% nominal GDP growth, combined with a 1.5 percentage-point gap between the interest rate and nominal GDP growth, boosts the debt ratio to 261% in 2020 (Panel A). The formula below can be used to calculate the primary balance necessary to stabilise the debt ratio:

$$(r - g) * (\text{debt}/\text{GDP}), \text{ where } r \text{ represents the nominal interest rate and } g \text{ the nominal growth rate}$$

A primary surplus of 3.9% is necessary to stabilise the debt ratio (assuming no special factors such as privatisation revenues). Moving from a primary deficit of 3% of GDP to a surplus of 3.9% implies an improvement of 6.9% of GDP (Panel B). However, if the nominal annual average growth rate were 5%, nominal GDP in 2020 would be substantially larger, reducing the debt ratio to 213% of GDP (Panel A). Based on the above identity, a primary surplus of 3.2% would be needed to stabilise the debt ratio, implying an overall improvement of 6.2% of GDP.

Given its unprecedented level of public debt, the Fiscal Management Strategy's objective of reducing the debt ratio was appropriate. Indeed, fiscal consolidation is not only about stabilising debt, but also reducing it to an appropriate long-term level (Sutherland *et al.*, 2012). As Japan advances toward a primary budget surplus, it should set a long-term path in the 2020s to reduce the public debt ratio.

It is essential to maintain confidence in Japan's fiscal sustainability despite the high level of the debt and deficits and the extended period of consolidation ahead. A priority to sustain confidence is to draw up and commit to a detailed and credible medium-term plan containing specific spending cuts and tax increases necessary to achieve a primary budget surplus. The following sections discuss specific spending and tax policies before considering measures to improve the fiscal policy framework.

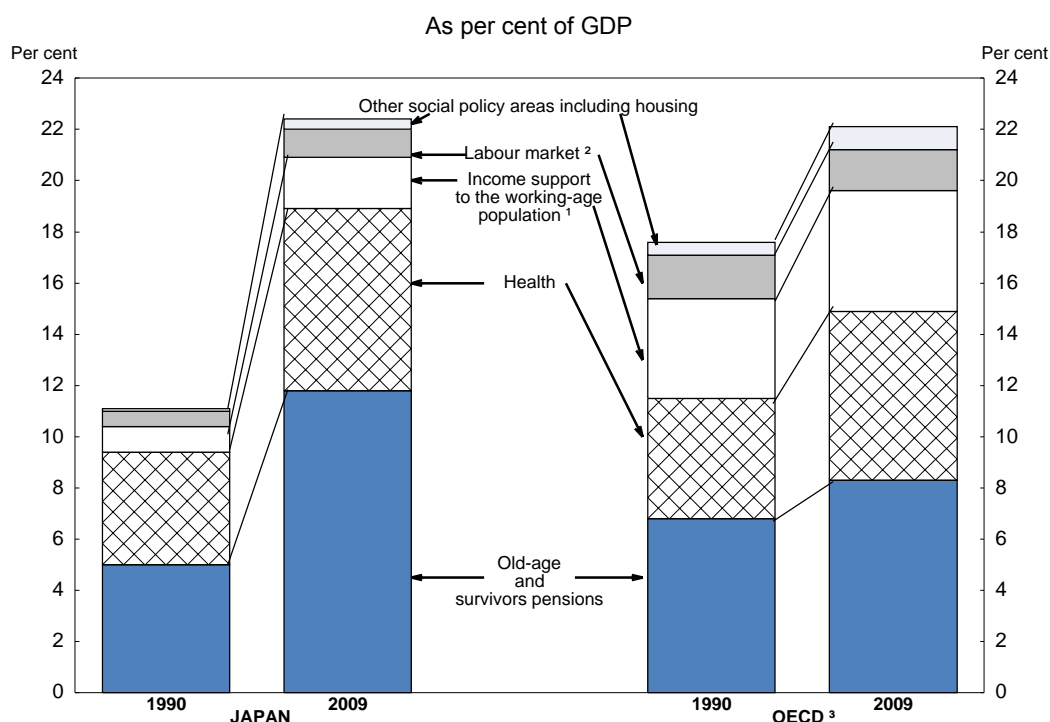
### ***Controlling spending***

#### *Reforming the social security system*

Given that the increase in government expenditures is largely driven by rising public social spending, social security reform is key to controlling spending. The OECD measure of public social spending shows an increase from 11% of GDP in Japan in 1990 to 22% in 2009, a level that matches the OECD average (Figure 8). Pension and health spending accounted for 9 percentage points of the increase. The upward trend is likely to continue, driven by population ageing; the number of persons over age 65 is projected to increase by 17% by 2020, pushing the elderly dependency ratio above 50% and keeping it the highest among OECD countries. Under the current framework, Japan expects total public social spending to rise from 22.8% of GDP in FY 2012 to 23.6% in FY 2020 (Table 6), with central and local government's financing rising from 8.5% of GDP to 9.2% and the remainder financed by the social security fund. Under the social security reform plan, which includes new spending measures (Table 4), total public social spending would increase further to 24.1% of GDP.

#### Pension reform

The 2004 pension reform, which aimed at ensuring the sustainability of the system for up to 100 years, was projected to reduce pension spending from 11.2% of GDP in FY 2012 to 10.5% in FY 2020 and further to 9.9% in FY 2025, despite population ageing. The 2004 reform is raising the contribution rate from 13.6% to 18.3% by FY 2017. It also introduced "macroeconomic indexation", which adjusts pension benefits based on changes in the number of contributors and life expectancy. In addition, the government's contribution rate to the basic pension was increased from one-third in FY 2004 to one-half in FY 2009.

**Figure 8. Public social spending has risen rapidly, driven by pensions and health care**

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.

**Table 6. Projection of social security spending**

	FY 2012		FY 2020				FY 2025			
			Without reform		With reform <sup>1</sup>		Without reform		With reform <sup>1</sup>	
	Trillion yen	Share of GDP <sup>2</sup>	Trillion yen	Share of GDP <sup>2</sup>	Trillion yen	Share of GDP <sup>2</sup>	Trillion yen	Share of GDP <sup>2</sup>	Trillion yen	Share of GDP <sup>2</sup>
<b>Total benefits</b>	<b>109.5</b>	<b>22.8</b>	<b>131.8</b>	<b>23.6</b>	<b>134.4</b>	<b>24.1</b>	<b>144.8</b>	<b>23.7</b>	<b>148.9</b>	<b>24.4</b>
Pension	53.8	11.2	58.5	10.5	-	-	60.4	9.9	-	-
Health care	35.1	7.3	46.1	8.3	46.9	8.4	53.3	8.7	54.0	8.9
Long-term care	8.4	1.8	13.1	2.3	14.9	2.7	16.4	2.7	19.8	3.2
Childcare	4.8	1.0	5.8	1.0	-	-	5.6	0.9	-	-
Others	7.4	1.5	8.4	1.5	-	-	9.0	1.5	-	-
<b>Total contributions</b>	<b>101.2</b>	<b>21.1</b>	<b>126.8</b>	<b>22.7</b>	<b>129.5</b>	<b>23.2</b>	<b>142.1</b>	<b>23.3</b>	<b>146.2</b>	<b>23.9</b>
Premium payments	60.6	12.6	75.3	13.5	76.5	13.7	83.9	13.7	85.7	14.0
Government	40.6	8.5	51.6	9.2	52.9	9.5	58.3	9.5	60.5	9.9
<i>Of which:</i>										
Pension	12.4	2.6	13.2	2.4	-	-	13.7	2.2	-	-
Health care	15.0	3.1	21.1	3.8	21.4	3.8	25.2	4.1	25.5	4.2
Long-term care	4.8	1.0	7.3	1.3	8.4	1.5	9.2	1.5	11.1	1.8

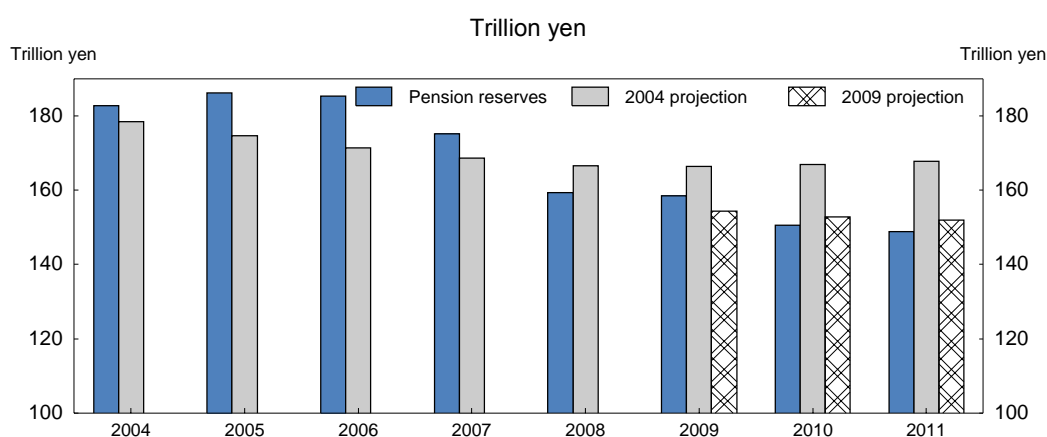
1. Includes the new spending measures planned in the comprehensive social security reform (Table 4), such as the provision of high-level hospital and in-home care and the reduction of payments for health insurance premiums.
2. The GDP growth rate is based on the Cabinet Office's "prudent scenario" announced in January 2012. The Ministry of Health, Labour and Welfare assumes an annual nominal growth rate of 1.7% after FY 2023.

Source: Ministry of Health, Labour and Welfare (2012).



Despite these reforms, concern about the sustainability of the public pension system is growing. *First*, the share of the population paying the mandatory pension contribution has fallen for six straight years, dropping from 67% in FY 2005 to 59% in FY 2011, far below the 80% necessary to maintain the current system. The falling contribution rate reflects weakening confidence in the pension system following the loss of pension records reported in 2007. Moreover, the rising share of non-regular workers, who earn substantially lower wages, reduces contributions. *Second*, the price indexation of pension benefits was suspended in the early 2000s. Given deflation, therefore, pension benefits in real terms are substantially higher than planned (Hosen, 2010). According to the government, the overpayment of pension benefits, relative to the level implied by the original indexation rule, pushes up total benefits by around 1 trillion yen (0.2% of GDP) a year on average. These factors, combined with weak economic growth, caused the pension fund – the reserve for future pension spending – to shrink faster than projected in the 2004 reform (Figure 9). Reserves in FY 2011 were 149 trillion yen, more than 10% below the 168 trillion yen projected in 2004, raising concern about the system's long-run sustainability. In 2012, the Diet passed a bill to eliminate the overpayment of pension benefits in three steps by FY 2015.

**Figure 9. Pension reserves have declined faster than expected<sup>1</sup>**



1. Includes the national and employees' pension schemes and Employees' Pension Funds. Final budget basis.

Source: Ministry of Health, Labour and Welfare.

There are three options to ensure the sustainability of the pension system: raising the pension eligibility age, increasing contributions or reducing pension benefits (or some combination thereof). However, pension benefits are already low. Indeed, the average gross replacement rate (the pension benefit as a share of gross wages for a couple with one earner) is 48%, the fifth lowest in the OECD area and well below the 57% average (OECD, 2011c). Reducing benefits would increase old-age poverty. As for boosting the contribution rate, it could further reduce the number of persons contributing to the pension system, while weakening work incentives by raising the tax burden.

The best option therefore is to increase the pension eligibility age, as it would reduce the fiscal burden while raising the labour participation of older persons (Sutherland *et al.*, 2012). The pension eligibility age is now 64 for men (62 for women) for the basic pension and 60 for the EPI. Although the age is to be raised to 65 by 2025 for men and 2030 for women, it will remain relatively low compared to Japan's life expectancy of 84 years, the world's longest. Consequently, the gap between life expectancy and the pension eligibility age is larger in Japan than in most OECD countries. Accelerating the increase in the eligibility age to 65 and raising it further – through a link to longevity – would help achieve fiscal sustainability. In addition, a higher retirement age would narrow the intergenerational gap between benefits and contributions, which currently favours older generations. A hike in the pension eligibility age should be accompanied by eliminating the preferential treatment of pension income. At present, around three-

quarters of pension benefit income is tax-exempt (Kashiwase *et al.*, 2012). Finally, pension contributions should be collected from the spouses of workers in the EPI system, as they are eligible for benefits.

### Health and long-term care reform

Japan also needs to limit the upward trend in health and long-term care spending, which is projected to rise from 9.1% of GDP in FY 2012 to 11.1% in FY 2020 under the reform scenario, which aims to improve the quality of services (Table 6). The chapter on health care in the 2009 *OECD Economic Survey of Japan* identified a number of policies to contain health and long-term care spending:

- Shift long-term care away from hospitals toward more appropriate institutions using the fee schedule and closer monitoring of patient classifications in hospitals. This would shorten the average length of hospital stays, which is the highest in the OECD area and almost four times the average (Table 7).
- Improve the payment system by reforming the diagnosis procedure combination (DPC), which sets an overall fee based on the illness, so as to strengthen incentives for hospitals to increase efficiency. While the DPC coverage has risen to around half of acute-care hospital beds, the basis for reimbursement should be shifted to the best-performing hospitals rather than the worst. The payment system for out-patient care also needs to be reformed to reduce the large number of physician consultations per year.
- Expand the use of generic medicine by making them the standard for reimbursement. Generics accounted for only 21% of prescriptions in volume terms in 2011, compared to 59% in the United States. Moreover, they cost more relative to branded drugs than in the United States.
- Introduce gatekeepers to reduce the number of unnecessary consultations with specialists. In contrast to many other OECD countries, patients are allowed to see any specialist with full reimbursement by the National Health Insurance.

The government has introduced several reforms to achieve such objectives, such as the 2012 revision of the Long-term Care Insurance Act, which aims at promoting community-based care, and the 2012 revision of medical fees, which is intended to increase the use of generic medicine. However, more reforms are needed.

**Table 7. International comparison of health-care services in 2010 or latest year available**

	Number of hospital beds <sup>1,2</sup>	Average hospital stay (in days)	Number of physicians <sup>1</sup>	Number of medical graduates <sup>3</sup>	Number of physician consultations per capita per year	Number of consultations per physician per year
Japan	13.6	32.5	2.2	6.0	13.1	5 874
OECD average	4.9	8.5	3.1	10.3	6.4	2 337
Highest country	13.6	32.5	4.8	22.8	13.1	6 482
Lowest country	1.6	3.9	2.0	4.1	2.9	763

1. Per 1 000 population.

2. Hospital beds for acute care.

3. Per 100 000 population.

Source: *OECD Health Database 2012*.

*Cutting government personnel costs*

Government employment fell by 9% between FY 2001 and FY 2010. To help finance reconstruction spending, the number of new graduates hired by the central government in FY 2013 is to be halved compared to FY 2009 while salaries are to be cut by about 8% in both FY 2012 and FY 2013. Also, the retirement allowances for central government officials are to be reduced by 15% by 2014. In addition to cutting public employment and wage levels, the priority should be to reform the government wage system, which has a steeper tenure profile and stronger downward rigidity than in the private sector. Such reforms should be extended to local governments, which account for more than 70% of total government personnel costs, and to public enterprises. Wages for local government officials were 7% higher than for those in the central government in FY 2012, despite the higher cost of living in Tokyo, where most central government employees live. This reflects the fact that wage cuts for central government employees were not applied to local jurisdictions. Local governments are required to take measures in FY 2013 to reduce their personnel costs, taking into account wage cuts imposed on central government employees.

*Reducing public investment*

Reconstruction from the 2011 earthquake and tsunami boosted public investment from 4.6% of GDP in 2010 to an estimated 4.8% in 2012, with a further increase expected in 2013, as public investment is set to rise 16% to improve infrastructure related to ageing and disaster prevention. As reconstruction spending fades, the long-run fall in public investment can resume, although the cost of maintaining public infrastructure limits the scope for decline. According to the Ministry of Land, Infrastructure and Transport, maintenance costs, which accounted for around half of total investment in FY 2010, will exceed the current level of all public investment by FY 2037, thus crowding out new investment projects (MLIT, 2010). Sustaining Japan's growth potential through productive public investment requires closing unnecessary public infrastructure to reduce maintenance costs. Moreover, the allocation of public investment should be driven more by economic criteria to improve the low marginal productivity of public capital than by concern about balanced regional development. Public investment by prefecture falls as the level of income increases (2008 *OECD Economic Survey of Japan*).

*Increasing government revenue*

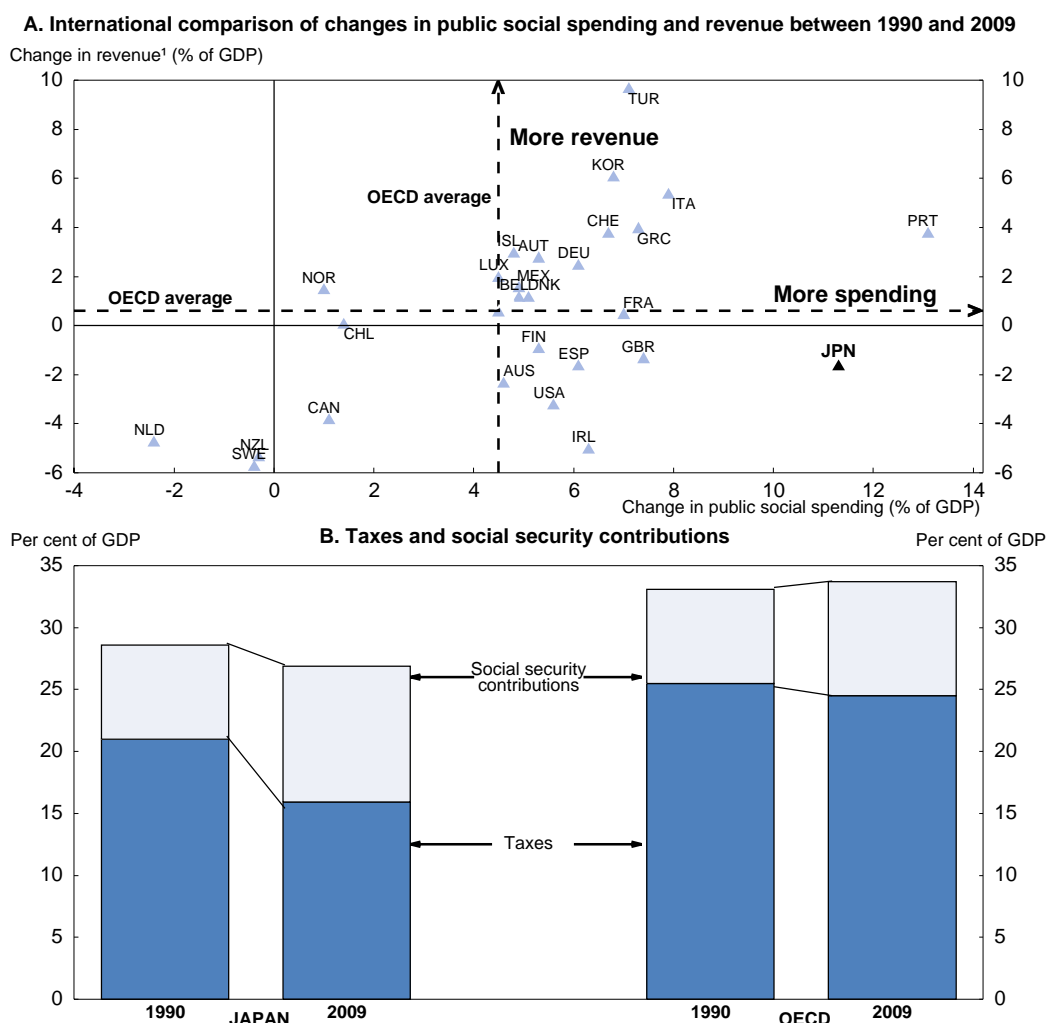
Government spending in Japan, excluding interest payments and social security outlays, was the fifth lowest in the OECD area at 27% of GDP in 2010, compared to an OECD average of 33%, suggesting limited scope for spending cuts. Moreover, continued rapid ageing will keep the elderly's share of the population the highest in the OECD. In the government's long-term projection, the primary budget remains in deficit through 2023 even if primary spending, excluding social security, is kept constant (Figure 7). In short, revenue increases are inevitable if fiscal sustainability is to be achieved. Tax revenues were the seventh lowest in the OECD at 27.6% of GDP in 2010. A recent OECD study found that large consolidations tend to be achieved through both revenue and spending measures (Molnar, 2012).

Japan's tax revenue has failed to increase in line with social spending. As noted above, public social spending doubled from 11% of GDP in 1990 to 22% in 2009, the second-largest increase among OECD countries after Portugal and well above the OECD average of 4% (Figure 10). Meanwhile, total revenue fell by 1.5% of GDP over the same period in Japan, as the rise in social security contributions was more than offset by the fall in tax revenue (Panel B). In sum, the deterioration in the balance between public social spending and revenue stands out in Japan.

*The consumption tax needs to be further increased after 2015*

Taxes on goods and services amounted to 5.2% of GDP in 2010, less than one-half of the OECD average (Table 8). Revenue increases should come primarily from further hikes in the consumption tax, which is a value-added tax (VAT). It currently generates revenues of only 2.6% of GDP, reflecting the low rate of 5%, the lowest in the OECD and well below the OECD average of 18%. A VAT is a relatively stable revenue source and less harmful for economic growth, as it imposes fewer distortions on employment and investment (Arnold *et al.*, 2011). A greater role for the VAT would also improve intergenerational equity, as the elderly would bear more of the tax burden. In short, a VAT is the most appropriate tax for raising the revenue needed to achieve a balanced budget.

**Figure 10. Public social spending has risen while revenue fell in Japan**



1. Includes tax and social security contributions.

Source: OECD Social Expenditure Database and OECD Revenue Statistics Database.

Even with the doubling of the consumption tax rate to 10% by 2015, the government’s projection shows that the primary budget balance would remain in deficit of around 3% of GDP in FY 2020 (Figure 7). If the primary balance were to be achieved through the consumption tax alone, the rate would need to rise by six percentage points to 16%, given that a one-point hike in the consumption tax rate

generates revenue equivalent to ½ per cent of GDP. Achieving the primary budget surplus of 3.9% needed to stabilise the debt ratio (Table 5) would require another eight percentage-point hike in the tax rate. Consequently, if Japan were to achieve its fiscal targets by relying solely on the consumption tax, the rate would have to converge toward the 22% average in Europe. Reducing the debt ratio from 2021 would require an even larger tax hike.

The comprehensive reform plan for social security and taxes has led to discussions of whether to introduce a multiple-rate VAT, with a lower rate for food and other necessities, to mitigate the regressive nature of a higher consumption tax. Given its single-rate approach, Japan's VAT base is the eighth largest in the OECD area.<sup>8</sup> Japan should retain its single-rate approach, as a multiple-rate VAT would have little impact on the regressive nature of the consumption tax (Owens *et al.*, 2011). Instead, the negative impact on income distribution should be addressed through other measures targeted on low-income earners, notably an earned income tax credit (EITC) (see below). In addition, introducing multiple VAT rates has a number of drawbacks. *First*, it would entail higher administrative and compliance costs. *Second*, it would provide opportunities for fraud through the misclassification of items. *Third*, it would have to be compensated by a higher standard rate. *Fourth*, it would reduce the neutrality of the VAT, thus distorting consumption decisions and decreasing welfare.

**Table 8. The tax mix in OECD countries**

Tax revenue as a per cent of GDP

	2000		2010			Change <sup>1</sup> 2000-10
	Japan	OECD	Japan	Rank	OECD	
Direct taxes on households	5.6	9.3	5.1	26	8.4	-0.5
Direct taxes on firms	3.7	3.4	3.2	9	2.9	-0.5
Social security and payroll	9.4	9.3	11.4	15	9.5	2.0
Goods and services	5.1	11.3	5.2	33	11.0	0.1
Property	2.8	1.8	2.7	8	1.8	-0.1
Holding taxes	2.0	0.9	2.1	6	1.0	0.1
Taxes on property transactions	0.4	0.6	0.3	19	0.4	-0.1
Estate, inheritance and gift taxes	0.3	0.1	0.3	5	0.1	0.0
Other	0.1	0.2	0.1	13	0.2	0.0
<b>Total</b>	<b>26.6</b>	<b>35.2</b>	<b>27.6</b>	<b>28</b>	<b>33.8</b>	<b>1.0</b>

1. For Japan in percentage points.

Source: OECD Revenue Statistics 1965-2011 (edition 2012).

As noted above, the implementation of the tax hike in 2014 and 2015 is contingent on an improvement in the economic situation, which is to be assessed based on a range of factors explained above. While it is important to avoid a recession, the authorities should also consider the risk that delaying fiscal consolidation would hurt credibility and lead to a rise in long-term interest rates. Although consolidation may slow output growth in the short term, a number of studies find that credible consolidation has a positive impact on growth in the medium and long run by boosting private-sector confidence (OECD, 2010a and OECD 2010b). The importance of limiting the impact of fiscal consolidation does suggest that the hike in the VAT towards 20% and above should be implemented gradually.

8. Based on the VAT revenue ratio, which is defined as VAT revenues as a share of consumption divided by the standard rate, expressed as a percentage. Given that the VAT in most countries excludes the wages and salaries of the public sector, Japan's relatively small public sector increases the ratio.

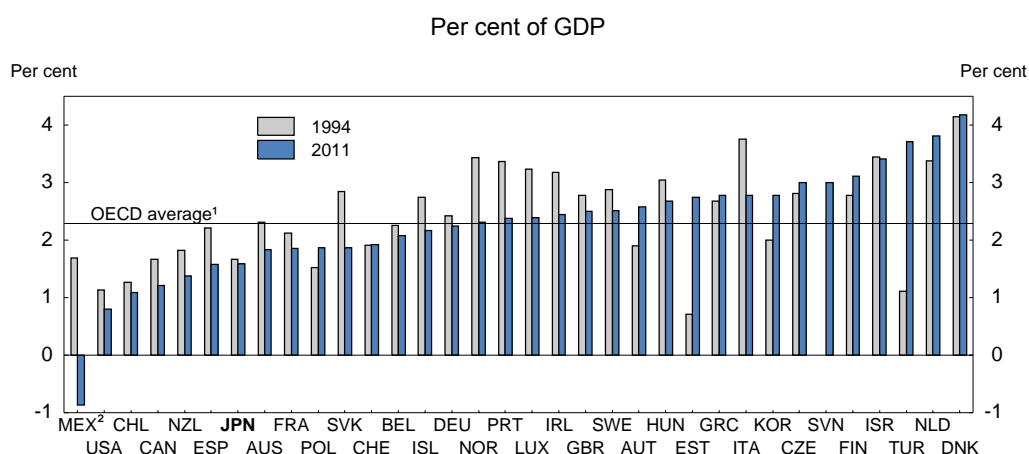
### Other measures to boost revenues

Environmental taxes hold the promise of both boosting revenue and helping to achieve environmental objectives, such as reducing pollution and greenhouse gas emissions. While revenues from environmentally-oriented taxes averaged 2.3% of GDP in the OECD, their share in Japan was only 1.6% (Figure 11). Further promoting the use of such taxes would spur green innovation and growth, in addition to raising additional revenue and achieving environmental objectives.

Broadening personal and corporate income tax bases is another option to raise revenue, although in the FY 2013 budget, tax deductions have been expanded. In Japan, less than one-half of wage income is taxed, reflecting deductions for wage income that are intended to level the playing field for employees relative to the self-employed. As a result, personal income tax revenues are low in Japan, at 5.1% of GDP in 2010, well below the OECD average (Table 8). Additional personal income tax revenue could be generated by broadening the tax base as transparency about self-employed income is enhanced. For example, taxation of pension income should be strengthened (2008 *OECD Economic Survey of Japan*). Moreover, reforming the treatment of spouse earnings under the tax and social security system would also boost incentives for female employment.

Less than one-half of firms pay income tax. Corporate income tax revenues were close to the OECD average of around 3% of GDP in 2010 (Table 8), as the narrow tax base was offset by a relatively high tax rate. Indeed, Japan's corporate tax rate of 39.5% in 2011 was the highest in the OECD and well above the average of 25.5%. As noted above, the corporate tax rate was reduced to 35% in 2012, although the cut has been temporarily offset by a surcharge in FY 2012-14 to pay for reconstruction spending. At the same time, the base broadened, in part by revising the special tax measures for depreciation and loss carryover provisions. The high corporate income tax rate weakens the economic performance of Japanese firms paying the tax, while the numerous exemptions distort the allocation of resources and investment. Further cutting the corporate tax rate and widening its base would stimulate economic activity without necessarily reducing revenues. Cutting down the number and size of tax expenditures, particularly those that target specific industries and regions, would improve the allocation of resources (2008 *OECD Economic Survey of Japan*).

**Figure 11. Revenues from environmental taxes are low in Japan**



1. The solid line shows the arithmetic average. The weighted average was 2%.

2. In Mexico, consumer prices on motor vehicle fuels are held more or less constant, in spite of large variations in world market prices. In years when world market prices are high, the excise tax on fuels turns into a subsidy – equalling 1% of GDP in 2011.

Source: OECD/EEA Database on Instruments Used for Environmental Policy.

## ***Improving the fiscal policy framework***

### *Independent fiscal councils*

Maintaining market confidence in Japan's fiscal position is essential, particularly in light of the sovereign debt crisis in the euro area. In addition to a detailed and credible medium-term plan of spending cuts and tax increases, Japan needs improvements in its fiscal policy framework, as discussed in the fiscal chapter in the 2011 *OECD Economic Survey of Japan*. Responsibility for fiscal policy in Japan has been divided between three institutions: *i*) the Cabinet Office is responsible for the economic forecast underlying annual budgets and produces medium to long-term economic and fiscal projections; *ii*) the Ministry of Finance formulates the annual budgets; and *iii*) the National Policy Unit (NPU), created in 2009 and closed in 2012, set the Fiscal Management Strategy (Box 1) and evaluated progress each year in implementing it. While each institution has a different role, thereby enhancing transparency in the policy process, none of them is independent from policymaking.

The establishment of independent fiscal councils in many OECD countries in recent years has helped to improve fiscal policymaking (OECD, 2012a). Such councils have a number of benefits, including providing objective policy analysis and independent budget forecasts. One of the lessons from fiscal councils is that they need to be independent from policymaking and appropriately resourced if they are to boost policy credibility (Hagemann, 2010). Most importantly, such an institution can play a key role in monitoring and assessing fiscal performance relative to the announced objectives. Given such benefits, independent fiscal councils have been established in Sweden (2007), Canada (2008), Slovenia (2010), the United Kingdom (2010), and Australia, Ireland, Portugal, and the Slovak Republic (2011-12) (OECD, 2012a). Several countries have adopted fiscal rules or reformed their budget frameworks, set constitutional limits on debt or deficits (Spain and Poland) or reintroduced pay-as-you-go (Germany, Switzerland, and the United States) (Sutherland *et al.*, 2012). In sum, the creation of independent fiscal institutions is a sign of political commitment to fiscal consolidation and promotes fiscal discipline and compliance with fiscal rules. The benefit of an independent fiscal council in Japan would be particularly large, given the unprecedented size of its debt ratio and the risk of higher interest rates during the decade, at least, of fiscal consolidation ahead. Such a council, for instance, could provide an objective analysis of economic conditions to determine whether the tax hike should be implemented as planned.

The resurrection by the new government of Japan's Council on Economic and Fiscal Policy (CEFP), which played an important role in fiscal consolidation in the past, could be an important step in this regard. The CEFP will prepare the new government's *Basic Policy for Economic and Fiscal Management* by mid-2013 to replace the Fiscal Management Strategy. The CEFP, though, is not independent from policymaking as its 11 members include the prime minister, four economic ministers, the chief cabinet secretary and the Bank of Japan governor, in addition to two academic experts and two business leaders. Nevertheless, the presence of four private-sector experts may help it function as an objective body in evaluating progress in fiscal consolidation, thereby helping to sustain confidence in the fiscal position.

Other key reforms should include a stronger legal foundation for medium and long-term fiscal targets and multi-year budgeting plan for spending and taxes, even though such plans have to be reconsidered in the event of unforeseeable circumstances (2011 *OECD Economic Survey of Japan*). OECD experience suggests that a mutually reinforcing framework of budget procedures, fiscal rules and independent fiscal oversight can help countries achieve their fiscal objectives.

### *Improving the electoral system*

It is not just institutions that can influence economic policy but also electoral systems. The re-apportionment of electoral districts has lagged behind the population migration from rural to urban areas.

By the 1980s, as many as five times the votes were needed to elect a representative from an urban district compared with those needed in a rural district, which the Supreme Court ruled violated the constitutional principle of one person-one vote. Nevertheless, the disparity was still two urban votes to one rural vote in the 2009 House of Representatives election and more than five to one in the 2010 House of Councillors election (Table 9). The 2009 election was subsequently found to be unconstitutional by the Supreme Court, a ruling that did not invalidate the election, but required the Diet to reapportion the districts. However, no districting changes were made for the December 2012 election, leading to the filing of lawsuits challenging its legitimacy.

**Table 9. National Diet electoral districts with the highest and lowest voting weight**

In thousands

House of Representatives				House of Councillors			
Lowest vote weight		Highest vote weight		Lowest vote weight		Highest vote weight	
District	Registered voters per member elected	District	Registered voters per member elected	District	Registered voters per member elected	District	Registered voters per member elected
Chiba 4	496.14	Kōchi 3	207.69	Kanagawa 1	225.48	Tottori	242.48
Kanagawa 10	493.15	Nagasaki 3	211.29	Osaka	187.45	Shimane	295.74
Tokyo 6	484.28	Fukui 3	213.56	Hokkaidō	149.66	Kōchi	318.97
Hokkaidō 1	482.51	Tokushima 1	214.73	Hyōgo	139.23	Fukui	326.76
Tokyo 3	480.31	Kōchi 1	214.74	Tokyo	1073.39	Tokushima	328.29
Hyōgo 6	475.92	Kōchi 2	215.51	Fukuoka	1029.80	Saga	344.24
Tokyo 1	474.62	Tokushima 3	215.52	Saitama	977.47	Yamanashi	351.36
Tokyo 19	467.80	Miyagi 5	216.93	Aichi	977.29	Fukushima	412.05
Tokyo 23	464.70	Fukui 2	218.40	Chiba	847.03	Kagawa	414.63
Tokyo 22	463.70	Yamanashi 1	219.21	Tochigi	816.88	Gifu	422.24

Source: Ministry of Internal Affairs and Communications.

The disparities in the electoral system have important implications for economic policy. In particular, the extra weight given to rural districts provides support for agricultural policies that boost food prices far above world levels and impose heavy burdens on consumers and taxpayers.<sup>9</sup> In addition, it gives an unfairly large advantage to older voters, who already benefit from large inter-generational transfers in their favour.

## Ensuring that fiscal consolidation does not exacerbate inequality and poverty

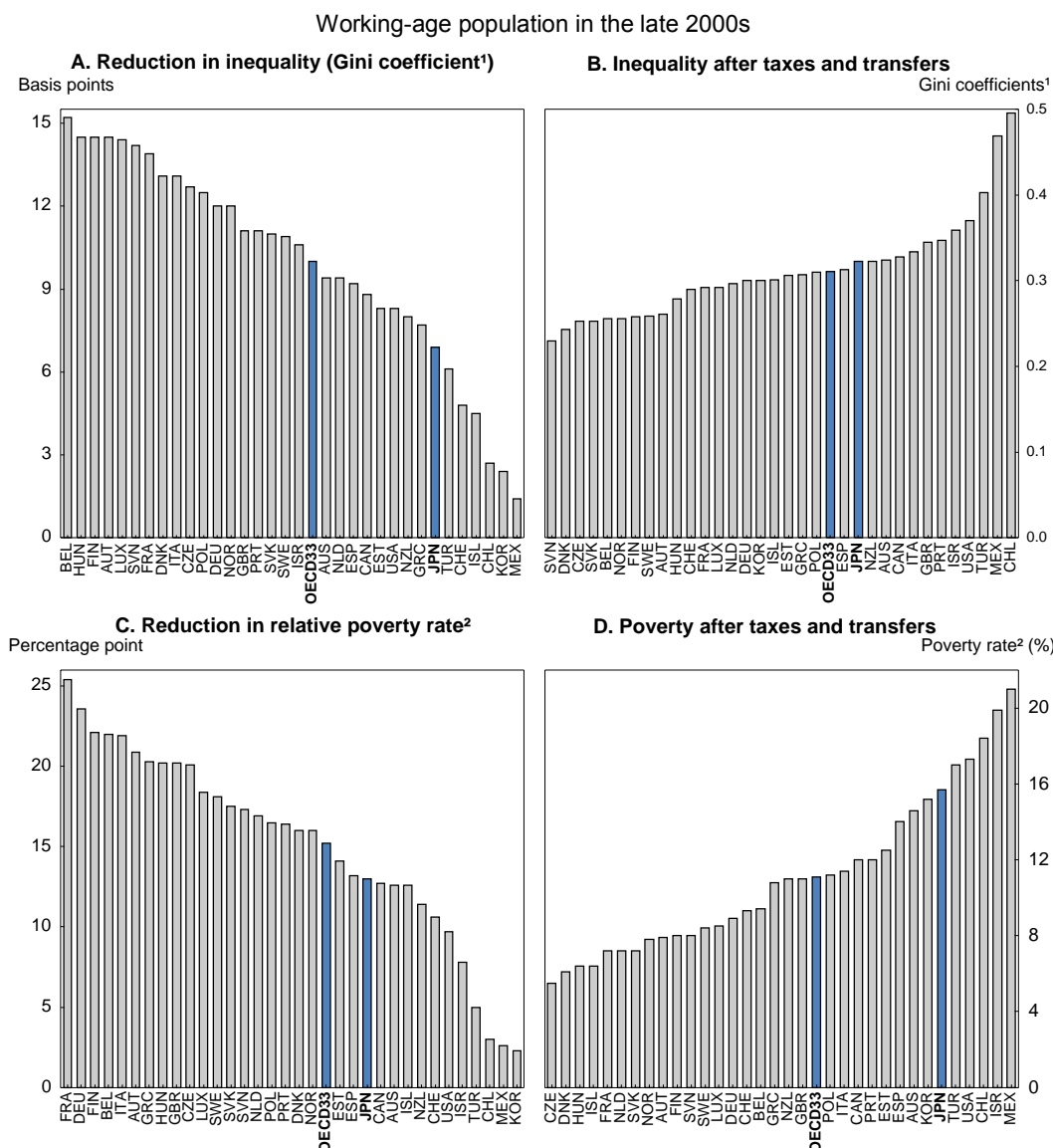
### *Rising income inequality and relative poverty*

OECD studies have found that large and rapid fiscal consolidations can reduce the income share of the two lowest quintiles of the income distribution, thereby increasing income inequality (Rawdanowicz *et al.*, 2013). Compared to other OECD countries, tax and social spending policies in Japan have relatively little impact on income inequality and relative poverty, even though their impact has strengthened in recent years. Indeed, they reduced the Gini coefficient by seven basis points (cutting the coefficient from 0.39 to 0.32) in the late 2000s (Figure 12, Panel A). Likewise, the impact of the tax and benefit systems on relative poverty, which was the sixth highest in the OECD, was relatively small (Panel C). This reflects the fact that the Japanese tax and benefit system primarily redistributes income over the life-cycle rather than across individuals.

9. Agriculture is discussed in detail in Chapter 1 of the 2013 *OECD Economic Survey of Japan*.



**Figure 12. Taxes and transfers have relatively little impact on income inequality and poverty in Japan**



1. The Gini coefficient ranges from 0 (perfect equality) to 1 (perfect inequality). Market incomes are all gross incomes from earnings, savings and capital. Disposable income adds transfers and subtracts taxes.
2. The relative poverty rate is defined as the share of population that lives on less than one-half of the median income.

Source: OECD (2011a).

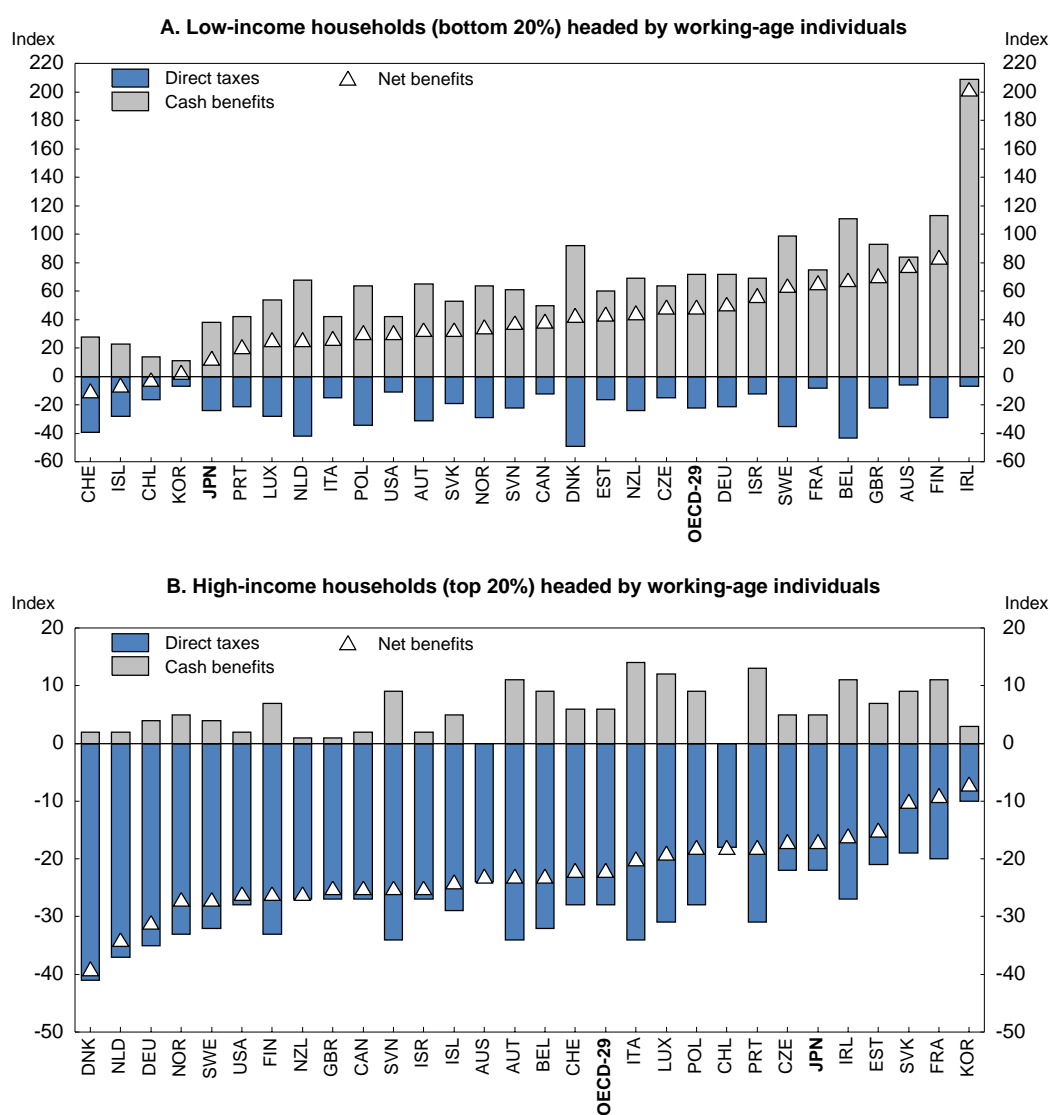
The small impact on the income distribution among the working-age population in Japan reflects a number of factors. *First*, while public social spending matches the OECD average (22% of GDP), it is concentrated in pension and health-care programmes (19%) that primarily benefit the elderly, compared to the OECD average of 15% (Figure 8). On the other hand, social spending for the working-age population is limited to 2% of GDP, compared to the OECD average of 5%. Given the small amount of support to the working-age population and the large transfers to the elderly, Japan is the only OECD country where the poverty rate among all working households and households with children is higher after taking account of benefits and taxes than before. *Second*, the distribution of benefits between different income quintiles in Japan is the least progressive in the OECD. The poorest 20% of households headed by a working-age

person received cash benefits amounting to only 38% of their earned market income, well below the OECD average of 72% (Figure 13). *Third*, despite low transfers, the bottom quintile bears a significant tax and social security burden, as they contribute to the income transfers to the elderly. One study found that social security contributions have a regressive nature in Japan, given that the self-employed and economically non-active pay flat-rate contributions to the National Pension and National Health Insurance (Oshio, 2010).

Combining the impact of redistribution through transfers and taxes, the net income transfer to the lowest-income quintile in Japan is 13% of market income, the fifth lowest in the OECD and a quarter of the OECD average of 49% (Figure 13). Similarly, for the top income quintile, net taxes paid were low at 17% in Japan, compared to an OECD average of 22% (Panel B). In sum, Japan's redistribution system is less targeted on the working-age poor and less progressive than in other OECD countries.

**Figure 13. Assistance to low-income households is low in Japan**

In the late 2000s<sup>1</sup>



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 in Panel A, taxes exceed benefits.

Source: OECD Database on Household Income Distribution and Poverty ([www.oecd.org/els/social/inequality](http://www.oecd.org/els/social/inequality)).

The large increase in public social spending in Japan, therefore, has not enabled it to avoid the upward trend in inequality in the OECD area since the mid-1980s. On a disposable income basis, Japan's Gini coefficient for its working-age population increased from 0.30 in the mid-1980s to 0.32 in the late 2000s, pushing it above the OECD average, which also increased during that period (Figure 12, Panel B). Rising inequality reflects falling income at the lower end of the income distribution: Japan is one of only two OECD countries, along with Israel, where real household income of the lowest decile has fallen since the mid-1980s in absolute terms.

The increase in income inequality was accompanied by a rise in the relative poverty rate, defined as the share of the population that lives on less than half of the median income. Based on disposable income, the poverty rate among the working-age population increased from 11.9% in the mid-1990s to 15.7% in late 2000s, the sixth highest in the OECD and well above the average of 11.1% (Figure 12, Panel D).<sup>10</sup> In particular, the poverty rate for households with children and one working adult is the highest in the OECD at almost 60%. Widespread poverty among single parents in Japan results in a high incidence of poverty among children. Given the high cost of schooling and private tutoring institutes, children in poor families are at risk of receiving an inadequate education, thus perpetuating poverty across generations.

Widening income inequality in OECD countries reflects a number of structural changes, notably the increase in wage dispersion. This has been a key factor in Japan due to the rising share of non-regular workers, which has doubled since 1990 to almost 34% of total employment in 2012. Given that non-regular workers only earn 60% as much per hour as regular workers, this increased wage inequality (see the labour market chapter in the 2011 *OECD Economic Survey of Japan*). 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). Moreover, changes in household structure – notably the increase in single-headed households – may have also played a role in increasing inequality, although less so than changes related to the labour market (OECD, 2011a).

### ***Well-targeted increases in social spending are needed to address rising income inequality***

There is a growing consensus that economic performance should not be judged solely on the basis of income growth, but should also take into account income distribution, as well as other factors (Stiglitz *et al.*, 2009). The large-scale fiscal consolidation underway in many OECD countries thus raises concerns about the social impact of changing tax and benefit systems. In some cases, the potential trade-offs between deficit reduction and income redistribution can be mitigated by re-designing tax and benefit systems, although other systemic reforms may be necessary in some cases (Joumard and Pisu, 2012).

Cash transfers account for three-quarters of the reduction in income disparities in the OECD area, compared to only a quarter for taxes (Joumard and Pisu, 2012). Well-targeted social spending is thus essential to promote inclusive growth. Given its limited fiscal space, Japan needs to carefully design spending to achieve its objectives and, in particular, avoid wasteful spending and weakening work incentives. The government plans to strengthen redistribution through the comprehensive reform of social security and tax, in part by reducing social security contributions for low-income persons (Table 4). In addition, as noted above, the progressivity of the tax system is to be strengthened, in part by raising the top rates of the personal income tax and the inheritance tax, while reducing the basic deduction for the inheritance tax.

The falling share of the population contributing to the basic pension system raises concerns that the poverty rate among the elderly will rise in the future. Moreover, the minimum contribution period to be

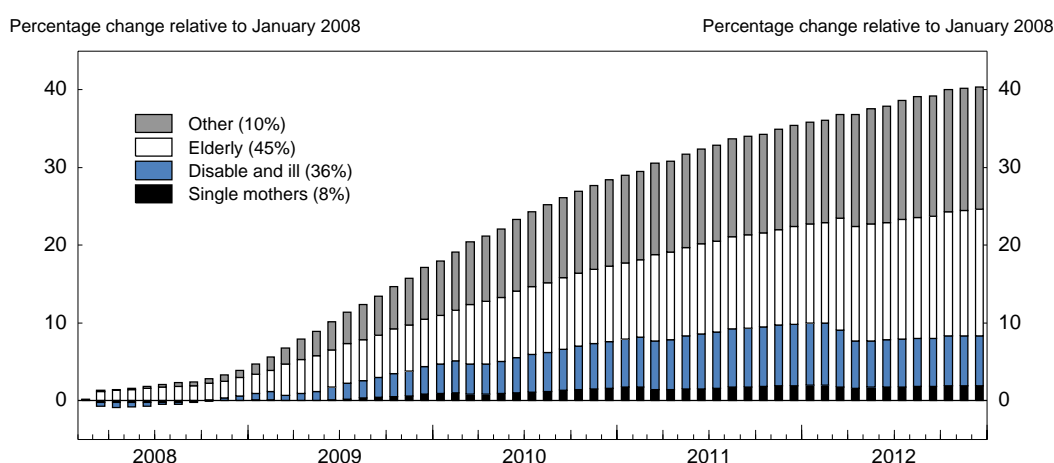
---

10. Given that income distribution and poverty statistics for the elderly are affected by changes in living arrangements and dis-saving, this section focuses on the working-age population.

eligible for pension benefits was recently reduced from 25 years to 10 years. This would increase the number of recipients by 170 thousand, equivalent to about 40% of the people currently without pension benefits. However, it would not prevent an increase in the number of elderly with small or no pension benefits. The government plans to increase benefits for the low-income elderly. Better policy co-ordination with other social programmes, notably public assistance, is needed. A guaranteed minimum pension would resolve the problem of the rising number of persons with inadequate pension benefits, while narrowing the intergenerational gap. However, it would require a large increase in taxes. Moreover, shifting to a new system would create transitional problems and uncertainty about how past contributors to the basic pension would be treated under a guaranteed pension system. It is thus important to avoid expensive new programmes, such as a guaranteed minimum pension, given the dire fiscal situation.

Upgrading the safety net, notably the Basic Livelihood Protection Programme (BLPP), which provides cash and a package of in-kind benefits to those living under the absolute poverty line, is another priority. The benefits are relatively generous: for a married couple with two children, they amount to half of the national median income (67% including the housing benefit) (OECD 2012c). The limited impact on poverty is due to the low coverage of the BLPP. In 2012, only 3% of households received BLPP benefits, reflecting strict eligibility requirements, including an asset test and the exclusion of persons who could receive support from family members. Nevertheless, the number of recipients has increased by 40% since 2008, spurred by the rise in unemployment in the wake of the global financial crisis (Figure 14). In addition, there has been a marked shift in the composition of recipients since 2008, when single mothers, handicapped or ill persons and the elderly accounted for 90% of recipients. The category “other” – which presumably includes many persons capable of working – has jumped from 10% of total recipients to 18%. With the rising number of recipients, total benefits were set to increase to 3.7 trillion yen (0.8% of GDP) in the initial FY 2012 budget. The government plans to reduce spending on public assistance, while providing job assistance for the poor and needy in FY 2013.

**Figure 14. The upward trend in public assistance recipients in Japan<sup>1</sup>**



1. The number in parentheses in the legend of the graph shows the share of each category in the total number of public assistance recipients in January 2008.

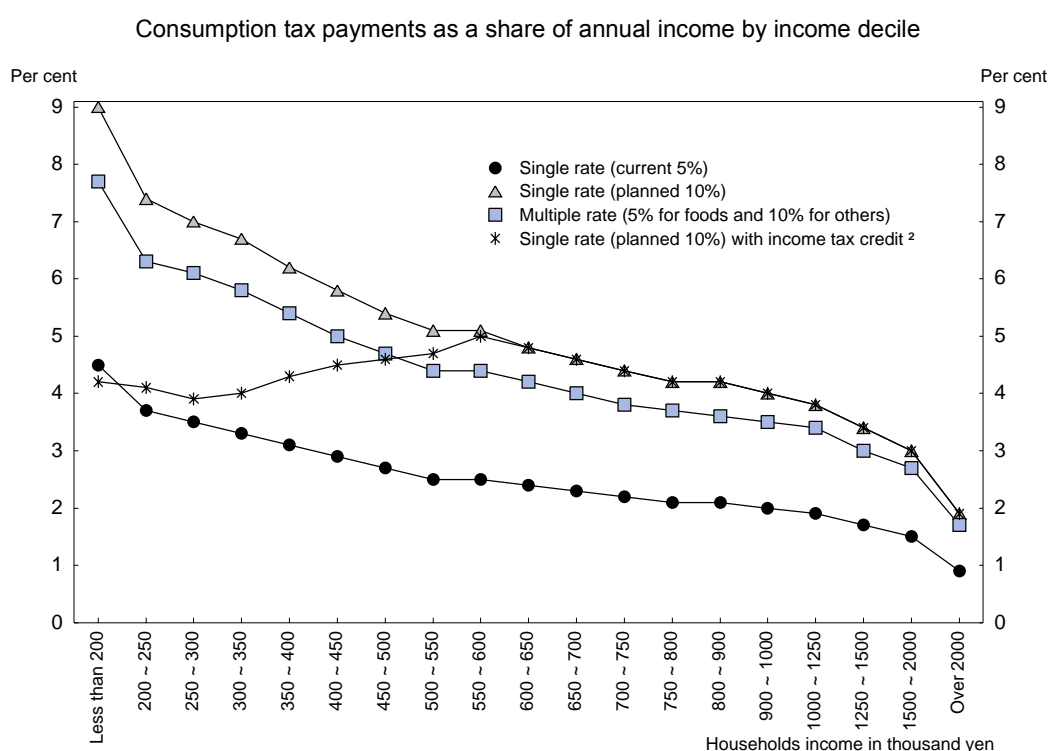
Source: Ministry of Health, Labour and Welfare.

The BLPP needs to adjust to the rising number of welfare recipients capable of working. The “Life Support Strategy” announced in September 2012 aims at addressing poverty in a more comprehensive way. The initiative includes: *i*) strengthening job support for those with weak vocational abilities; *ii*) preventing the perpetuation of poverty across generations; and *iii*) enhancing incentives to leave public assistance, in part by introducing the “working-income reserve system”, which keeps some of the earned income of

households receiving public assistance and then refunds it to them when they leave the programme. It is essential to integrate the BLPP with other programmes, notably the “second safety net”, which was introduced in 2009 and provides 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 EITC, an in-work benefit that is used in a number of OECD countries. The EITC lowers taxes or provides a refund when the deduction is larger than the tax amount, thereby raising take-home pay at the low end of the income distribution, while strengthening work incentives. Such an approach is likely to be effective in Japan, given its relatively wide earnings distribution, low taxes on labour and low benefits for the non-employed. Indeed, one study showed that an income tax credit would effectively ease the burden of the consumption tax hike for the lowest income decile (Figure 15). An EITC could be financed by an additional hike in the consumption tax or other revenues. Such a system would be more successful if accompanied by effective activation measures, such as training, to help the unemployed find jobs that would allow them to participate in the EITC. Finally, the introduction of an EITC would be facilitated by the introduction of a single identification number for taxpayers and those contributing to social security, a proposal that is currently under discussion, to enhance transparency about income, particularly for the self-employed.

**Figure 15. The regressive nature of the consumption tax and possible policy responses<sup>1</sup>**



1. The regressiveness is defined as a higher tax burden for lower-income households.
2. The amount of the income tax credit matches the amount of revenue that would be lost by introducing a 5% rate for food. It assumes that the amount of tax credit is 48 thousand yen, which is proportionally reduced once income exceeds a threshold of 3 million yen.

Source: The Tokyo Foundation (2010).

The government is considering measures to ease the effect of the consumption tax hike on low-income persons. While the planned increase to a 10% rate would double the burden on all income classes, tax payments for the lowest decile would rise by 5% of their income, compared to only 1% for the highest

decile, thus raising inequality and poverty (Figure 15). Such calculations based on annual income data may overstate the regressive impact of consumption taxes since consumption largely depends on lifetime income, which is less variable than annual income. In particular, pensioners with low annual income may consume out of their previous (accumulated) earnings (Joumard and Pisu, 2012). The tax hike legislation requires the introduction of a cash benefit as a temporary measure when the consumption tax rate is raised to 8% in 2014. It also calls for a discussion of other measures, including an EITC and multiple consumption tax rates, to prepare for the hike to 10% in 2015. As noted above, an income tax credit – such as the EITC – would be most effective in limiting the regressiveness for employed persons, while multiple consumption tax rates should be avoided.

Japan should also address the underlying causes of inequality by reforms in the labour market and education system, as discussed in the Assessment and recommendations of the 2013 *OECD Economic Survey of Japan*. A recent OECD study concluded that while technological change and globalisation play at least some role in driving inequality patterns, structural policy can also have an important influence on inequality, in particular through education and labour market policies (Koske *et al.*, 2012). The priorities are to break down labour market dualism, ensure low-income families' access to high-quality early childhood education and care and to reduce reliance on private, after-school tutoring institutions known as *juku* (2011 *OECD Economic Survey of Japan*).

## Conclusion

Overcoming Japan's decades-long fiscal deterioration and restoring fiscal sustainability requires a detailed and credible fiscal consolidation plan, including specific revenue increases and measures to control spending, in addition to boosting nominal GDP growth. The major concern on the spending side is the rapid increase in social security outlays in the context of rapid population ageing, making reforms to contain such spending a priority. Much of the consolidation, though, will have to be on the revenue side, mainly through hikes in the consumption tax rate beyond the currently planned 10% in 2015. In view of the severity of Japan's fiscal predicament, a reform of the fiscal framework is needed to help achieve the fiscal targets and bolster credibility, thereby mitigating the risk of a run-up in long-term interest rates. The adverse effects of fiscal consolidation on equity should be addressed by enhancing redistribution through taxes and benefits. Recommendations to achieve fiscal sustainability are summarised in Box 5.

### Box 5. Summary of recommendations to restore fiscal sustainability

#### **Develop a new fiscal consolidation plan**

- Develop a more detailed and credible fiscal consolidation plan, including spending targets by category and a timetable for tax hikes, to maintain confidence in the fiscal situation and prevent a run-up in interest rates.
- Aim for a sufficiently large primary budget surplus – around 4% of GDP – to stabilise the debt ratio by 2020.

#### **Limit government spending**

- Achieve spending cuts in such areas as public investment and the government wage bill to partially offset rising social security outlays.
- Implement approved reconstruction spending before creating new budget plans.
- Continue the screening process to find ways to reduce low-priority and ineffective spending programmes.
- Reform social security to limit spending increases, particularly in the areas of health and long-term care.
- Ensure the sustainability of the public pension programme by accelerating the hike in the retirement age.

***Increase government revenue***

- Implement the planned doubling of 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, while introducing measures, notably an earned income tax credit, to address the regressive nature of the tax.
- 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***

- Ensure that the Council on Economic and Fiscal Policy functions as an effective impartial body to monitor and evaluate progress in fiscal consolidation.
- Reform the fiscal policy framework through a multi-year budgeting plan and a stronger legal basis for fiscal targets.

***Take measures to address inequality***

- Enhance redistribution through well-targeted taxes and benefits to increase the share of social spending received by low-income households.
- Introduce an earned income tax credit, initially for wage earners, and then expand it to the self-employed as transparency about their income is enhanced, in part by introducing a tax identification number.
- Upgrade public assistance by ensuring that those capable of working are enrolled in training, while promoting incentives to leave assistance and co-ordinating such programmes with the existing safety net.
- Address the underlying causes of inequality through reforms in the education system and the labour market.

## BIBLIOGRAPHY

- Arnold, J., B. Brys, C. Heady, A. Johansson, C. Schweltnus and L. Vartia (2011), “Tax Policy for Economic Recovery and Growth”, *Economic Journal*, Vol. 121.
- Bank of Japan (2012), *Financial System Report*, Tokyo (October).
- Brückner, M. and A. Tuladhar (2010), “Public Investment as a Fiscal Stimulus: Evidence from Japan’s Regional Spending during the 1990s”, *IMF Working Paper*, WP/10/110, Washington D.C.
- Cabinet Office (2010a), *Economic and Fiscal Model*, 2010, Tokyo.
- Cabinet Office (2010b), *Economic and Fiscal Projections for Medium to Long-Term Analysis*, June, Tokyo (in Japanese).
- Cabinet Office (2011), *Economic and Fiscal Projections for Medium to Long-Term Analysis*, January, Tokyo (in Japanese).
- Cabinet Office (2012), *Economic and Fiscal Projections for Medium to Long-Term Analysis*, August, Tokyo (in Japanese).
- Caner, M., T. Grennes and F. Koehler-Geib (2010), “Finding the Tipping Point – When Sovereign Debt Turns Bad”, *World Bank Policy Research Working Paper*, No. 5391, Washington, DC.
- Economic and Social Research Institute (2012), *Initial Investigation on the Data from the Quality of Life Survey FY 2011*, Cabinet Office, Government of Japan, Tokyo.
- Égert, B. (2012), “Public Debt, Economic Growth and Nonlinear Effects: Myth or Reality?”, *OECD Economics Department Working Papers*, No. 993, OECD, Paris.
- Elmeskov, J. and D. Sutherland (2012), “Post-Crisis Debt Overhang: Growth and Implications across Countries”, OECD Economics Department, <http://www.oecd.org/dataoecd/7/2/49541000.pdf>.
- Government of Japan (2011a), *Basic Guidelines for Reconstruction*, 29 July.
- Government of Japan (2011b), *Draft Plan of Social Security and Tax Reform*, 1 July.
- Government of Japan (2013), *Emergency Economic Measures for the Revitalisation of the Japanese Economy* (January), Tokyo.
- Hagemann, R. (2010), “Improving Fiscal Performance through Fiscal Councils”, *OECD Economics Department Working Papers*, No. 829, OECD, Paris.
- Hosen, M (2010), “Japan’s Public Pension: The Great Vulnerability to Deflation”, *ESRI Discussion Paper Series*, No. 253, Tokyo.
- Hoshi, T. and T. Ito (2012), “Defying Gravity: How Long Will Japanese Government Bond Prices Remain High?”, *NBER Working Papers*, No. 18287.
- International Monetary Fund (2012), *Global Financial Stability Report*, Washington, DC (October).
- Joumard, I. and M. Pisu (2012), “Less Income Inequality and More Growth – Are they Compatible? Part 3. Income Redistribution via Taxes and Transfers across OECD Countries”, *OECD Economics Department Working Papers*, No. 926, OECD, Paris.



- Kashiwase, K., M. Nozaki and K. Tokuoka (2012), “Pension Reforms in Japan”, *IMF Working Papers*, No. 12/285, IMF, Washington, DC.
- Koske, I., J. Fournier and I. Wanner (2011), “Less Income Inequality and More Growth – Are They Compatible? Part 2. The Distribution of Labour Incomes”, *OECD Economics Department Working Papers*, No. 925, OECD, Paris.
- Kumar, M. and J. Woo (2010), “Public Debt and Growth”, *IMF Working Paper*, WP/10/174, Washington DC.
- Ministry of Health, Labour and Welfare (2012), *Projection on Social Security Benefits and Contributions*, March 2012, Tokyo (in Japanese).
- Ministry of Land, Infrastructure and Transport (2010), *Annual Report on Land, Infrastructure, Transport and Tourism in Japan, 2009*, Tokyo.
- Molnar, M. (2012), “Fiscal Consolidation: Part 5. What Factors Determine the Success of Consolidation Efforts?”, *OECD Economics Department Working Papers*, No. 936, OECD, Paris.
- National Policy Unit (2010), *Fiscal Management Strategy*, 22 June.
- OECD (2008), *OECD Economic Survey of Japan*, OECD, Paris.
- OECD (2009), *OECD Economic Survey of Japan*, OECD, Paris.
- OECD (2010a), *OECD Economic Outlook*, No. 88, OECD, Paris.
- OECD (2010b), *Restoring Fiscal Sustainability: Lessons for the Public Sector*, OECD, Paris.
- OECD (2011a), *Divided We Stand: Why Inequality Keeps Rising*, OECD, Paris.
- OECD (2011b), *OECD Economic Survey of Japan*, OECD, Paris.
- OECD (2011c), *Pensions at a Glance, 2011*, OECD, Paris.
- OECD (2012a), *Draft Principles for Independent Fiscal Institutions*, OECD, Paris.
- OECD (2012b), “Fiscal Consolidation: How Much, How Fast and By What Means”, *OECD Economic Policy Papers*, No. 01, OECD, Paris.
- OECD (2012c), *OECD Tax and Benefit Models*, OECD, Paris.
- Oshio, T. (2010), *Welfare Analysis on Redistribution: Fairness and Efficiency*, Nippon Hyoron Sha, Tokyo (in Japanese).
- Owens, J., P. Battiau and A. Charlet (2011), “VAT’s Next Half Century: Towards a Single-rate System?”, *OECD Observer*, No. 284.
- Rawdanowicz, L., E. Wurzel and A. Christensen (2013), “The Equity Implications of Fiscal Consolidation”, *Economics Department Working Papers*, No. 1013, OECD, Paris.
- Stiglitz, J., A. Sen and J. Fitoussi (2009), *Report by the Commission on the Measurement of Economic Performance and Social Progress*.
- Sutherland, D., P. Hoeller and R. Merola (2012), “Fiscal Consolidation: Part 1. How Much is Needed and How to Reduce Debt to a Prudent Level?”, *OECD Economics Department Working Papers*, No. 932, OECD, Paris.
- The Tokyo Foundation (2010), *Tax Credit: Specific Recommendations*, Tokyo (in Japanese).

## WORKING PAPERS

The full series of Economics Department Working Papers can be consulted at [www.oecd.org/eco/workingpapers/](http://www.oecd.org/eco/workingpapers/)

1049. *Measuring Total Factor Productivity at the Firm Level using OECD-ORBIS*  
(May 2013) by Peter Gal
1048. *A projection method for public health and long-term care expenditures*  
by Christine de la Maisonneuve and Joaquim Oliveira Martins (forthcoming)
1047. *R&D, patenting and growth: the role of public policy*  
(May 2013) by Ben Westmore
1046. *Knowledge-based capital, innovation and resource allocation*  
(May 2013) by Dan Andrews and Chiara Criscuolo
1045. *Reforms for a Cleaner, Healthier Environment in China*  
(April 2013) by Sam Hill
1044. *Making the tax system less distortive in Switzerland*  
(April 2013) by Andrés Fuentes
1043. *The determinants of informality in Mexico's states*  
(April 2013) by Sean M. Dougherty and Octavio Escobar
1042. *Legal reform, contract enforcement and firm size in Mexico*  
(April 2013) by Sean M. Dougherty
1041. *Improving the economic situation of young people in France*  
(April 2013) by Hervé Boulhol  
*Améliorer la situation économique des jeunes en France*  
(avril 2013) par Hervé Boulhol
1040. *Improving employment prospects for young workers in Spain*  
(April 2013) by Anita Wölfl
1039. *Youth labour market performance in Spain and its determinants - a micro-level perspective*  
(April 2013) by Juan J. Dolado, Marcel Jansen, Florentino Felgueroso, Andres Fuentes and Anita Wölfl
1038. *The efficiency and equity of the tax and transfer system in France*  
(April 2013) by Balázs Égert  
*Efficacité et équité du système de prélèvements et de transferts en France*  
(avril 2013) par Balázs Égert
1037. *Income inequality and poverty in Colombia. Part 2. The redistributive impact of taxes and transfers*  
(April 2013) by Isabelle Joumard and Juliana Londoño Vélez
1036. *Income inequality and poverty in Colombia. Part 1. The role of the labour market*  
(April 2013) by Isabelle Joumard and Juliana Londoño Vélez

1035. *Policy options to durably resolve euro area imbalances*  
(March 2013) by Yvan Guillemette and Dave Turner
1034. *Labour market, welfare reform and inequality in the United Kingdom*  
(March 2013) by Christophe André, Clara Garcia, Giulia Giupponi and Jon Kristian Pareliussen
1033. *Work incentives and Universal Credit – reform of the benefit system in the United Kingdom*  
(March 2013) by Jon Kristian Pareliussen
1032. *Strengthening social cohesion in Luxembourg: making efficiency and equity go hand in hand*  
(March 2013) by Jean-Marc Fournier and Clara Garcia
1031. *The price of oil – Will it start rising again?*  
(March 2013) by Jean-Marc Fournier, Isabell Koske, Isabelle Wanner and Vera Zipperer
1030. *The system of revenue sharing and fiscal transfers in China*  
(February 2013) by Xiao Wang and Richard Herd
1029. *The declining competitiveness of French firms reflects a generalised supply-side problem*  
(February 2013) by Hervé Boulhol and Patrizio Sicari
1028. *Do the overall level and dispersion of socio-economic background measures explain France's gap in PISA scores?*  
(February 2013) by Hervé Boulhol and Patrizio Sicari
1027. *Labour market performance by age groups: a focus on France*  
(February 2013) by Hervé Boulhol and Patrizio Sicari
1026. *Moving towards a single labour contract: pros, cons and mixed feelings*  
(February 2013) by Nicolas Lepage-Saucier, Juliette Schleich and Etienne Wasmer
1025. *Boosting productivity in Australia*  
(January 2013) by Vassiliki Koutsogeorgopoulou and Omar Barbiero
1024. *Housing, financial and capital taxation policies to ensure robust growth in Sweden*  
(January 2013) by Müge Adalet McGowan
1023. *Labour market and social policies to foster more inclusive growth in Sweden*  
(January 2013) by Stéphanie Jamet, Thomas Chalaux and Vincent Koen
1022. *Educational attainment and labour market outcomes in South Africa, 1994-2010*  
(January 2013) by Nicola Branson and Murray Leibbrandt
1021. *Education quality and labour market outcomes in South Africa*  
(January 2013) by Nicola Branson and Murray Leibbrandt
1020. *Do policies that reduce unemployment raise its volatility? Evidence from OECD countries*  
(January 2013) by Alain de Serres and Fabrice Murin