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Chapter 4

FISCAL CONSOLIDATION: REQUIREMENTS, TIMING, INSTRUMENTS AND INSTITUTIONAL ARRANGEMENTS

Introduction

Major fiscal consolidation is needed in many OECD countries…

Most OECD countries face severe fiscal consolidation requirements. At a time when the recovery is still fragile and monetary policy already extended, difficult trade-offs arise between short-term growth and consolidation. Trade-offs also exist with other policy objectives, such as equity and long-term growth. Ultimately, difficult choices will have to be made and will depend on the economic and budget situations of individual countries. However, the choice of instruments used to improve public finances may help alleviate these trade-offs, with some measures potentially strengthening growth in the longer run, while also influencing the consequences of consolidation on equity and its political acceptance.

… raising issues of timing, instruments and institutions

This chapter discusses the size of current consolidation requirements and the pace at which budget positions should be strengthened in the context of a set of macroeconomic projections to 2025. It analyses what spending and revenue changes can be used to achieve consolidation, taking into account the scope for each instrument to generate budget improvements, its impact on growth and equity, and its likely political acceptance. The final section reviews the potential role of fiscal frameworks, rules and institutions.

Main findings are:…

The main findings are:

… consolidation needs are substantial…

- Consolidation requirements are substantial; merely to stabilise debt-to-GDP ratios by no later than 2025 requires strengthening the underlying primary balance from the current position by more than 5% of GDP in the OECD area on average. Tightening by more than 8% of GDP is called for in the United States and Japan, with the United Kingdom, Portugal, Slovak Republic, Poland and Ireland all requiring consolidation of 5 to 7 percentage points of GDP. Consolidation requirements would be much more demanding if the aim were to return debt-to-GDP ratios to their pre-crisis levels. In addition, for a typical OECD country, offsets of 3% of GDP will have to be found over the coming 15 years to meet spending pressures due to ageing, representing additional cumulative consolidation requirements of about ¼ per cent of GDP per year.

… the appropriate speed of consolidation depends on a range of factors…

- For countries with credibility and therefore choice as regards timing, the consolidation should be more frontloaded the weaker the state of public finances, the stronger the economy, the weaker the short-term multiplier effects, the greater the scope for monetary policy to offset growth-restraining effects or the larger the adverse long-term growth effects from delaying consolidation.

... and may imply a trade-off between temporary output losses and long-term gains...

- Typical estimates of short-run fiscal multipliers, representing the effects of a 1 percentage point of GDP consolidation on economic activity, are of the order of ½ to 1, depending on a range of factors including the policy instrument used and the openness of the economy. Hence, the short-run impact of consolidation on GDP growth is likely to be negative, but this may only last two to three years (depending on the degree to which monetary policy can provide offsetting support) and, if consolidation leads to reduced risk premia and lower interest rates, there may be permanent gains in the level of output beyond four to five years. Over and above this, reduction in debt levels may be a pre-requisite for fiscal policy to be able to cushion future downturns.

... spending cuts should be considered as a priority...

- There are arguments to spread the consolidation on both the revenue and the expenditure side of the budget, especially given the required scale of consolidation. However, past experience suggests that budget consolidation concentrated on spending cuts rather than revenue increases is more likely to result in durable retrenchment. Given the size of consolidation needs in many countries, cuts should be considered in most major components of spending. Priority should be given to pension reform, which may have important signalling effects and limited impacts on near-term demand; to expenditure categories where there is scope to increase efficiency, such as education and health care in many countries; and to reducing distortions, such as those created by many subsidies and tax expenditures. Some countries may also have scope to revise social spending with a view to limiting the long-term effects of the crisis on employment and to increase participation in the labour market, while limiting the costs to the budget.

... tax hikes should focus on property, consumption and pollution...

- Beyond eliminating distortive tax expenditures, tax hikes may be necessary to meet the consolidation requirements. They should concentrate on the tax components that have the least harmful impact on growth, such as taxes on immovable property and broad taxes on consumption. Environmental revenues, be it through taxation or through the auction of emission permits, would also bolster both budgets and welfare.

... structural reform can bolster consolidation and growth...

- Structural reforms, especially those that increase employment, would contribute to growth and consolidation. A durable drop in the unemployment rate of 1 percentage point could boost budget balances by ¼-¾ per cent of GDP. Some privatisation proceeds could also be used to reduce gross debt while contributing to higher growth, but should only be considered where and when market conditions are favourable.

... and fiscal rules and institutions can improve the chances of success

- Historical evidence suggests that fiscal rules and institutions can play an important role in consolidation. In current circumstances, specifying a debt objective including the path to stabilising and subsequently reducing the debt-to-GDP ratio would be useful. It could be supplemented by a spending and/or deficit rule, with a combination

of such rules seemingly giving the best results. An independent fiscal watchdog can play an important role in assessing fiscal conditions in general and compliance with rules, with the implied greater discipline on policy helping to boost credibility.

Fiscal consolidation requirements in a stylised long-term scenario

Fiscal imbalances cannot be resolved in the short run

As observed in previous financial crises (Box 4.1), the recent crisis has led to a substantial build-up in government debt. Moreover, fiscal balances in most countries will remain far below levels that would be consistent with stable government debt at the end of the short-term projections described in Chapter 1. A stylised baseline scenario to 2025 has been constructed in order to consider how these fiscal imbalances might be resolved.

Projections are underpinned by potential output estimates

For OECD countries, the long-term growth projections are underpinned by projections of potential output (Box 4.2), while for non-OECD economies the scenario is constructed using a growth convergence framework (Duval and de la Maisonneuve, 2009).[1] Most of the

Box 4.1. **The consequences of previous banking crises for public debt**

Financial crises are not only typically associated with sharp economic downturns, but also with a substantial deterioration of fiscal positions. Declining revenues due to weaker economic conditions and higher expenditures associated with bailout costs and fiscal stimulus measures have historically led to a rapid deterioration of fiscal balances and a substantial increase in public debt.[1]

Analysing a panel of developed and developing economies, Reinhart and Rogoff (2009) estimate that in the three years after the occurrence of a banking crisis the real value of government debt rises on average by 86%. Furceri and Zdzienicka (2010) instead focus on the absolute change in the government gross debt-to-GDP ratio and, using an unbalanced panel of 154 countries from 1980 to 2006, find that severe banking crises (defined as those among the episodes identified by Laeven and Valencia (2008) in which the deviation of the annual GDP growth rate from the trend exceeds 4 percentage points) are associated with a significant and long-lasting increase of about 37 percentage points.[2] Analysis based on both severe and non-severe crises, suggests that the effect of banking crises on public debt is not statistically different between OECD and non-OECD countries.

In addition, the increase in public debt in the aftermath of a banking crisis is greater for countries that have a higher initial debt-to-GDP ratio. This can be partly explained by the fact that a higher initial level of debt means that a country may both be more likely to experience, and more vulnerable to, higher risk premia and an increased debt service burden. The empirical evidence suggests that those countries with a higher initial debt-to-GDP ratio (corresponding to the upper quartile of the distribution, *i.e.* above 76% of GDP) experience an increase in the debt-to-GDP ratio that is about 15 percentage points of GDP higher than in countries with a lower initial debt ratio (the first quartile, *i.e.* below 20% of GDP).

1. Duval and de la Maisonneuve (2009) develop and apply a simple "conditional growth" framework to make long-term GDP projections for the world economy. GDP per capita in each country depends on technology, investment in physical and human capital and the employment rate. As these vary across countries, conditional convergence implies that, in the very long run, differences will remain in per capita income levels, but not in growth rates.

Box 4.1. **The consequences of previous banking crises for public debt** *(cont.)*

Finally, the magnitude of the increase in public debt in the aftermath of banking crises is found to be sensitive to the amount of public foreign debt (foreign currency debt issued in foreign countries and under the jurisdiction of a foreign court). In particular, in countries with a higher initial foreign public debt-to-GDP ratio (corresponding to the upper quartile of the distribution, *i.e.* above 57% of GDP) the increase in the total public debt-to-GDP ratio in the medium term is about 23 percentage points higher than in countries with a lower initial foreign debt ratio (the first quartile, *i.e.* below 13% of GDP). Several factors can explain this result. First, countries with a high share of foreign public debt may face higher interest payments on debt coming due as capital markets become unwilling to continue rolling debt over. Second, when foreign exposure is heavy, expectations that debt service and repayment may be made difficult by currency depreciation may lead to a self-fulfilling public debt default. Third, in countries with a high foreign public debt ratio currency depreciation may lead to a substantial increase in the debt burden.

1. See, for example, Caprio and Klingebiel (1997), Honohan and Klingebiel (2000), Laeven and Valencia (2008), Reinhart and Rogoff (2008).
2. Based on this definition, during the period 1980-2006 only two OECD countries (Finland and Hungary in 1991) experienced a "severe" crisis; however, during the recent episode virtually all OECD countries experienced a "severe" crisis.

Box 4.2. **Assumptions underlying the baseline scenario**

The baseline represents a stylised scenario that is conditional on the following assumptions for the period beyond the short-term projection horizon from 2013 onwards:

- The gap between actual and potential output is eliminated by 2015 in all OECD countries. Thereafter GDP grows in line with potential output.
- Unemployment returns to its estimated structural rate in all OECD countries by 2015. Historical estimates of the structural unemployment rate are based on Gianella *et al.* (2008), on which is imposed a post-crisis hysteresis effect. The structural unemployment rate is assumed to eventually return to pre-crisis levels but at a speed which differs across countries based on previous historical experience (Guichard and Rusticelli, 2010); for those countries with more flexible labour markets structural unemployment returns to pre-crisis levels by 2015 and for other countries by 2025.
- Non-oil commodity prices remain unchanged in real terms, while oil prices rise by 1% per annum in real terms after 2012.
- Exchange rates remain unchanged in nominal terms in OECD countries; real exchange rates for non-OECD countries appreciate in line with growth differentials (through the so-called Balassa-Samuelson effect) from 2012.
- Policy interest rates remain low and are directed at avoiding deflation and, towards 2015, are normalised in order to bring inflation in line with medium-term objectives. For Japan it is assumed that once the output gap has closed and inflation returns to 1% in 2015, the target rate of inflation for monetary policy will be fixed at 2%.
- The adverse effects on the level of potential output resulting from the crisis (through adjustments to capital intensity, structural unemployment and labour force participation) have reached their peak by about 2013.
- After 2012, non-OECD economies show a slow convergence to US growth rates in per capita income (measured in purchasing power parity) (Duval and de la Maisonneuve, 2009).
- For the period 2015 to 2025, OECD countries experience a slow convergence to annual labour productivity growth of 1¾ per cent.

assumptions underlying the scenario tend to err on the optimistic side, including that: the crisis itself only reduces the level of potential output but has no permanent adverse effect on the rate of growth of total factor productivity or potential output; output gaps are closed by 2015 as a result of sustained above-trend growth with output growing in line with potential thereafter; and, with the exception of Japan, countries do not experience deflation despite continued negative output gaps over this period, and eventually return to targeted inflation by 2015.[2]

Demographics imply slowing potential growth

The scenario builds in a reduction in the level of potential output due to the effect of the crisis so that compared with OECD medium-term projections made prior to the crisis, the level of area-wide potential output is lowered by about 3%, with most of this reduction having already taken place by 2012. From 2013 onwards, the growth rate of OECD-wide potential output recovers to average about 2.0% per annum (Table 4.1), but this is still below the average growth rate of 2.3% per annum achieved over the seven years preceding the crisis. Most of this latter difference is due to slower growth both in participation rates and in the working-age population, mainly reflecting demographic trends rather than additional effects from the crisis.

Output is assumed to return to potential by 2015

Given the assumption that negative output gaps close by 2015, and despite slower potential growth, area-wide GDP growth averages 2¾ per cent per annum over the period 2010-15 (Table 4.2), compared with 2 per cent per annum over the period 2000-08. Unemployment is falling in all countries, with the area-wide unemployment rate down from 8¼ per cent in 2010 to a rate of just over 6% by 2015 and 5¾ per cent in 2025, reflecting both the recovery and the assumed eventual reversal of post-crisis hysteresis effects.

Fiscal consolidation requirements

Fiscal consolidation is essential to prevent unstable debt dynamics

In 2012, fiscal deficits and debt in many countries are large, and while there is more-than-usual uncertainty about the size of output gaps and thus about cyclically adjusted fiscal indicators, it is clear that in many countries there is a substantial component of the fiscal balance which is not explained by the cycle (Table 4.3, Box 4.3). In these circumstances, fiscal consolidation is inevitable for many countries, as is already recognised by many OECD governments which have announced plans for moving back towards more sustainable fiscal positions already in 2011 and 2012 (see Chapter 1).

As a stylised assumption, future fiscal consolidation sufficient to stabilise the ratio of government debt to GDP before 2025 has been incorporated in the baseline scenario (Box 4.4). However, the relatively modest pace of consolidation assumed (½ per cent of GDP per annum

2. This is consistent with inflation expectations remaining fairly well anchored (both upwards and downwards) and with the operation of "speed-limit" effects.

Table 4.1. **Potential output in the baseline scenario**

Annual averages, percentage change

	Output Gap	Potential GDP growth			Potential labour productivity growth (output per employee)		Potential employment growth		Components of potential employment[1]					
									Trend participation rate		*Working age population*		*Structural Unemployment*	
	2012	2000-2007	2010-2015	2016-2025	2010-2015	2016-2025	2010-2015	2016-2025	2010-2015	2016-2025	2010-2015	2016-2025	2010-2015	2016-2025
Australia	-1.6	3.3	3.2	2.5	1.6	1.4	1.5	1.1	0.1	-0.2	1.4	1.2	0.0	0.0
Austria	-2.1	2.2	1.8	2.1	1.2	1.7	0.6	0.4	0.4	0.5	0.2	0.0	0.0	0.0
Belgium	-5.8	2.2	1.7	1.6	1.3	1.6	0.4	0.0	0.0	-0.1	0.5	0.0	-0.1	0.1
Canada	-2.5	2.9	1.8	1.6	1.1	1.5	0.8	0.1	0.0	0.0	0.8	0.1	0.0	0.0
Chile	2.1	3.8	3.6	2.3	1.6	1.8	2.0	0.5	1.0	0.1	1.1	0.4	0.0	0.0
Czech Republic	-2.6	3.8	2.7	2.3	3.3	2.7	-0.5	-0.4	0.1	0.0	-0.5	-0.4	-0.1	0.1
Denmark	-4.7	1.7	1.3	1.1	1.5	1.5	-0.2	-0.4	-0.1	-0.3	-0.1	-0.1	0.0	0.1
Finland	-4.4	3.3	1.4	1.7	1.6	2.0	-0.2	-0.3	0.2	0.0	-0.4	-0.5	0.0	0.0
France	-2.9	2.1	1.4	1.7	1.3	1.5	0.0	0.2	-0.2	0.1	0.2	0.0	0.0	0.1
Germany	-1.2	1.3	1.4	1.2	1.4	1.7	0.0	-0.5	0.2	0.1	-0.2	-0.6	0.0	0.0
Greece	-8.3	3.7	0.5	1.4	0.9	1.5	-0.4	-0.1	0.0	0.0	-0.1	-0.3	-0.3	0.2
Hungary	-5.1	3.6	1.3	1.6	1.8	2.0	-0.5	-0.4	-0.1	0.1	-0.4	-0.6	-0.1	0.2
Iceland	-4.7	4.1	1.0	2.1	1.5	1.7	-0.4	0.5	-0.3	0.0	0.0	0.4	-0.1	0.1
Ireland	-6.7	5.8	1.4	2.7	1.7	1.8	-0.3	0.9	-0.5	-0.4	0.5	1.0	-0.3	0.4
Israel	0.5	3.6	3.6	3.4	1.2	1.5	2.3	1.8	0.5	0.5	1.6	1.3	0.2	0.0
Italy	-3.0	1.1	0.7	1.5	0.9	1.5	-0.2	0.0	-0.1	-0.1	0.0	-0.1	-0.1	0.1
Japan	-0.7	1.0	0.7	1.0	1.7	1.8	-1.0	-0.8	0.0	-0.1	-1.0	-0.7	0.0	0.0
Korea	0.3	4.6	3.7	1.8	3.2	2.6	0.4	-0.7	0.1	0.0	0.4	-0.7	0.0	0.0
Luxembourg	-3.9	4.2	2.8	2.5	1.5	1.7	1.3	0.8	0.1	0.0	1.1	0.8	0.0	0.0
Mexico	-0.9	2.6	2.9	2.6	1.2	1.6	1.7	1.0	0.2	0.2	1.5	0.8	0.0	0.0
Netherlands	-1.5	2.3	1.1	1.4	1.1	1.5	-0.1	-0.1	0.1	0.1	-0.1	-0.3	0.0	0.0
New Zealand	-1.9	3.1	1.8	2.4	0.7	1.5	1.1	0.9	0.0	0.0	1.1	0.9	0.0	0.0
Norway[2]	-1.1	3.4	2.0	2.6	1.5	2.3	0.5	0.3	0.0	0.0	0.6	0.3	0.0	0.0
Poland	0.3	3.9	2.9	1.4	3.0	2.3	-0.1	-0.9	0.0	0.0	-0.2	-0.9	0.1	0.0
Portugal	-2.1	1.7	1.2	2.1	1.3	1.9	-0.1	0.2	-0.1	0.0	0.1	0.0	-0.1	0.2
Slovak Republic	-1.7	5.1	3.3	2.0	3.6	2.8	-0.3	-0.7	-0.2	-0.1	-0.2	-0.7	0.1	0.0
Slovenia	-0.9	3.8	1.5	1.4	1.7	1.7	-0.1	-0.3	0.2	0.4	-0.1	-0.7	-0.1	0.0
Spain	-3.7	3.6	1.0	2.3	1.7	1.5	-0.7	0.8	-0.5	0.1	0.1	0.3	-0.3	0.4
Sweden	-2.5	2.8	2.0	2.0	1.7	1.9	0.3	0.1	0.0	0.0	0.3	0.1	0.0	0.0
Switzerland	-0.4	1.9	1.7	1.6	0.9	1.4	0.8	0.2	0.0	-0.1	0.6	0.1	0.0	0.0
United Kingdom	-3.4	2.5	1.4	1.9	1.3	1.7	0.1	0.2	-0.3	-0.1	0.4	0.3	0.0	0.0
United States	-2.0	2.6	2.0	2.4	1.6	1.7	0.4	0.7	-0.4	-0.2	1.0	0.9	0.0	0.1
Euro area	-2.7	2.0	1.2	1.6	1.4	1.6	-0.1	0.0	-0.1	0.1	0.0	-0.1	-0.1	0.1
OECD	-2.1	2.3	1.6	2.0	1.3	1.5	0.3	0.5	-0.1	0.1	0.5	0.3	0.0	0.0

1. Percentage point contributions to potential employment growth.
2. As a % of mainland potential GDP.

Source: OECD Economic Outlook 88 database.

StatLink http://dx.doi.org/10.1787/888932348111

reduction in the underlying primary balance as of 2013 and for as long as it takes to stabilise debt) means that in many cases there is a further build-up in the government debt-to-GDP ratio before it does stabilise. The scale of consolidation required to stabilise debt-to GDP-ratios both in relation to 2010 and, following the projected consolidation, from 2012 is summarised in Table 4.4. For around one-half of OECD countries, given the efforts announced already for the short term, little or no further consolidation is required to stabilise debt beyond 2012. Some countries,

Table 4.2. **A macroeconomic summary of the baseline scenario**

	Real GDP growth		Inflation rate[1]		Unemployment rate		
	2010-15	2016-25	2010	2015-25	2010	2015	2025
Australia	3.6	2.5	2.6	2.5	5.2	5.1	5.1
Austria	2.3	2.1	1.8	2.0	4.5	4.3	4.3
Belgium	2.6	1.6	2.3	2.0	8.6	8.5	8.0
Canada	2.7	1.6	1.2	2.1	8.1	6.6	6.5
Chile	4.3	2.3	1.2	1.9	8.1	8.5	8.5
Czech Republic	3.2	2.3	0.8	2.1	7.5	6.3	5.8
Denmark	2.4	1.2	2.4	2.0	7.2	4.9	4.4
Finland	2.9	1.7	1.4	2.0	8.6	7.7	7.4
France	2.0	1.7	1.1	2.0	9.3	8.7	8.2
Germany	2.3	1.2	1.9	2.0	6.9	8.1	8.1
Greece	0.7	1.5	4.0	2.0	12.2	10.7	8.9
Hungary	2.6	1.6	4.5	2.1	11.3	8.0	6.6
Iceland	1.9	2.2	5.7	2.0	7.5	3.5	2.8
Ireland	2.9	2.8	-2.1	2.1	13.6	8.3	4.8
Israel	3.6	3.4	3.0	2.0	6.4	6.5	6.5
Italy	1.6	1.5	1.6	2.0	8.6	7.2	6.3
Japan	1.6	1.0	-1.7	2.1	5.1	4.1	4.1
Korea	4.3	1.8	2.4	2.0	3.7	3.5	3.5
Luxembourg	3.6	2.6	1.1	2.0	6.0	4.1	4.0
Mexico	4.0	2.6	3.4	3.2	5.2	3.2	3.2
Netherlands	1.7	1.4	1.3	2.0	4.1	3.8	3.5
New Zealand	2.6	2.4	2.0	2.1	6.5	4.2	4.0
Norway[2]	2.6	2.6	2.0	2.1	3.6	3.5	3.3
Poland	3.2	1.4	2.5	2.1	9.6	10.0	10.0
Portugal	1.7	2.1	1.5	2.0	10.7	8.4	6.9
Slovak Republic	3.8	2.0	0.4	2.1	14.1	11.0	11.0
Slovenia	1.9	1.5	2.4	1.9	7.2	6.4	6.0
Spain	1.8	2.3	2.3	2.0	19.8	12.7	9.1
Sweden	3.1	2.0	0.8	2.0	8.4	7.0	7.0
Switzerland	2.1	1.7	0.5	2.1	4.4	3.8	3.7
United Kingdom	2.2	1.9	4.4	2.1	7.9	5.7	5.3
United States	2.8	2.4	1.7	2.0	9.7	5.4	4.9
Euro Area	2.0	1.6	1.7	2.0	9.9	8.5	7.6
OECD	2.7	2.1	1.8	2.2	8.3	5.9	5.5

1. For OECD countries, percentage change from the previous period in the private consumption deflator.
2. As a % of mainland GDP.

Source: OECD Economic Outlook 88 database.

StatLink http://dx.doi.org/10.1787/888932348130

such as Iceland, Italy and Belgium for which the debt ratios are initially very high belong to this category, as they are already on a debt-reducing path. Japan and the United States require the most consolidation beyond 2012 to stabilise debt, with an adjustment in the underlying primary balance of around 8 and 5 percentage points of GDP beyond the short term, respectively, (*i.e.* a decade or more of consolidation at the assumed pace), whereas New Zealand, Poland, the Slovak Republic and the United Kingdom require 3 to 4 percentage points of consolidation beyond 2012.[3]

3. For Japan the required amount of consolidation (over 8% of GDP in 2012) is not achieved by 2025 given the assumed pace of consolidation of ½ percentage point of GDP per annum.

Table 4.3. **Fiscal trends in the baseline assuming a stylised fiscal rule**

As percentage of nominal GDP (unless otherwise specified)

	Underlying fiscal balance	Number of years of consolidation[1]	Financial balances[2]			Net financial liabilities[3]			Gross financial liabilities[4]			Long term interest rate[5] (%)		
	2012		2007	2010	2025	2007	2010	2025	2007	2010	2025	2007	2010	2025
Australia	-0.1	0	1.7	-3.3	0.0	-7	0	3	14	24	26	6.0	5.3	6.6
Austria	-2.1	1	-0.6	-4.4	-1.7	31	42	44	63	76	78	4.3	3.2	4.7
Belgium	-0.7	0	-0.4	-4.9	0.0	73	82	54	88	103	75	4.3	3.3	4.8
Canada	-1.1	1	1.4	-4.9	-0.8	23	31	26	67	84	79	4.3	3.2	5.0
Czech Republic	-2.0	3	-0.7	-5.2	-1.8	-14	3	20	34	49	65	4.3	3.9	5.1
Denmark	-0.1	0	4.8	-4.6	1.0	-4	0	-2	34	54	49	4.3	2.9	5.3
Finland	1.2	0	5.2	-3.3	0.6	-73	-57	-40	41	58	75	4.3	3.0	4.7
France	-3.3	5	-2.7	-7.4	-2.7	34	57	65	70	92	101	4.3	3.0	5.3
Germany	-1.9	1	0.3	-4.0	-2.0	42	50	50	65	80	80	4.2	2.7	4.7
Greece	-2.6	2	-5.4	-8.3	-3.9	73	97	105	105	129	137	4.5	9.1	6.8
Hungary	-0.5	0	-5.0	-4.2	-0.8	53	62	57	72	89	85	6.7	7.2	6.1
Iceland	1.3	0	5.4	-6.3	2.6	-1	45	9	53	125	77	9.8	5.1	7.2
Ireland	-4.2	2	0.0	-32.3	-4.2	0	61	79	29	105	121	4.3	5.5	6.3
Italy	-1.1	0	-1.5	-5.0	-1.9	87	103	85	113	131	113	4.5	3.8	6.1
Japan[6]	-6.3	13	-2.4	-7.7	-4.7	81	114	154	167	198	237	1.7	1.1	4.7
Korea	2.9	0	4.7	1.6	3.6	-40	-37	-63	28	33	5	5.4	4.9	5.0
Luxembourg	1.8	0	3.7	-2.2	0.6	-44	-42	-26	12	21	38	4.4	3.1	4.6
Netherlands	-2.3	2	0.2	-5.8	-1.6	28	35	40	52	75	80	4.3	2.9	4.7
New Zealand	-2.6	6	4.0	-5.3	0.1	-13	-4	7	26	39	49	6.3	5.5	5.8
Poland	-4.9	9	-1.9	-7.9	-2.2	17	29	52	52	64	83	5.5	5.8	6.2
Portugal	-2.9	0	-2.8	-7.3	-4.0	43	63	77	69	93	108	4.4	5.2	5.6
Slovak Republic	-3.0	6	-1.8	-8.1	-0.9	7	24	33	33	47	56	4.5	3.8	4.7
Spain	-3.0	3	1.9	-9.2	-2.6	19	43	54	42	72	81	4.3	4.1	4.8
Sweden	1.9	0	3.5	-1.2	2.8	-25	-21	-36	47	51	28	4.2	2.9	4.8
Switzerland	0.0	0	1.7	-0.7	0.0	9	6	3	46	42	38	2.9	1.6	3.1
United Kingdom	-4.6	7	-2.8	-9.6	-3.2	28	51	71	47	81	103	5.0	3.5	5.6
United States	-6.0	11	-2.9	-10.5	-2.4	42	68	83	62	93	106	4.6	3.1	6.0
Euro Area	-2.2	2	-0.6	-6.3	-2.1	42	59	59	71	92	92	4.3	3.4	5.2
OECD	-4.2	7	-1.3	-7.6	-2.0	38	58	79	73	97	112	4.8	3.5	6.1

Note: **These fiscal projections are the consequence of applying a stylised fiscal consolidation rule and should not be interpreted as a forecast.**

1. The number of years of fiscal consolidation beyond 2012 is determined so as to stabilise the ratio of government debt to GDP, assuming that each year of consolidation amounts to ½ percent of GDP (see Box 4.4).
2. General government fiscal surplus (+) or deficit (-) as a percentage of GDP.
3. Includes all financial liabilities minus financial assets as defined by the system of national accounts (where data availability permits) and covers the general government sector, which is a consolidation of central, state and local governments and the social security sector.
4. Includes all financial liabilities as defined by the system of national accounts (where data availability permits) and covers the general government sector, which is a consolidation of central, state and local governments and the social security sector. The definition of gross debt differs from the Maastricht definition used to assess EU fiscal positions.
5. Interest rate on 10-year government bonds.
6. Japan is the only country for which the required consolidation to stabilise debt is so large that it is not achieved in the baseline scenario by 2025 given the assumed pace of consolidation.

Source: OECD Economic Outlook 88 database.

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Fiscal challenges are exacerbated by...

In addition to current high deficits and debt, a number of factors add to fiscal challenges going forward:

... rising interest rates...

- Interest rates are likely to increase across the maturity spectrum once the recovery becomes firmer. Over most of the past decade, long-term interest rates in the major OECD countries have been unusually low. While this may have partly resulted from global factors including lower

Box 4.3. **Uncertainty around output gap estimates and fiscal consolidation**

The size of current output gaps influences consolidation needs going forward. The more negative the output gap, the more cyclical recovery is likely to improve the fiscal balance, and the smaller the discretionary tightening required to achieve medium-term fiscal sustainability. While estimates of potential output and of output gaps are always uncertain, they are particularly uncertain now because the impact of the crisis on potential output remains unclear. Current OECD estimates suggest a peak OECD-wide reduction in potential output of about 3%. However, estimates of the nature and scale of the adverse effects on potential output vary across OECD countries, in part because the crisis had varying effects across countries but also because countries have different institutional and policy settings that influence the response of potential output to the downturn, particularly in the labour market (see OECD, 2010d, for details). Consequently, OECD estimates of output gaps for the United States, the euro area and Japan in 2009 currently differ significantly from those of the IMF and national sources (Table).

Output gap estimates for 2009

As a percentage of potential GDP

	OECD	IMF	National Sources[1]
United States	-4.6	-6.0	-6.4
Euro area	-4.8	-3.7	-3.1
Japan	-5.3	-7.1	-6.7

1. CBO (2010), *Budget and Economic Outlook - An Update - Detailed Economic Projections* and *Key Assumptions in Projecting Potential Output* for the US, European Commission (2010), "European Economic Forecast - Spring 2010", *European Economy*, Vol. 2/2010 for the euro area, and Cabinet Office estimate (unpublished) for Japan.

Source: OECD calculations.

StatLink http://dx.doi.org/10.1787/888932348320

Hence, an important issue in the current context is the sensitivity of projected consolidation needs to this uncertainty. OECD estimates suggest that the cyclical component of budget balances as a percentage of GDP are between 0.3 and 0.6 times the output gap, being lower in those economies (such as the United States and Japan) where tax revenues and expenditure are a smaller share of GDP. Against this background, estimates of the cyclical component of budget positions corresponding to the different output gap estimates fall within a fairly narrow range. Thus, the estimates in the table imply that in the United States and Japan, deficits could close by roughly 1½ to 2 percentage points of GDP as their output gaps are eliminated. The sensitivity of cyclical fiscal balances to output gaps is higher in European countries because of the greater importance of automatic stabilisers. Hence, changes in the euro area fiscal deficit as the area's output gap is eliminated would also range from 1½ to just over 2 percentage points of GDP despite the generally smaller output gap estimates shown above. The overall conclusion of this analysis is that despite some uncertainty around current output gap estimates, the implied uncertainty around the cyclical components of current deficits is relatively small in relation to the size of these deficits.

Another source of uncertainty in measures of cyclically-adjusted balances relates to the large asset and commodity price movements observed over the recent decade and their differences across countries. Buoyant asset and commodity prices just before the crisis may have led cyclically-adjusted budget balances to give an overly rosy picture of the underlying budget situation because no adjustment is made for these prices. Conversely, positive fiscal surprises might be forthcoming as the cycle recovers and asset and commodity prices go up. However, there are reasons to believe that the last cycle was exceptional and that the sustained increases in asset prices, corporate profits and government revenue during the great moderation is unlikely to come back. In any case, it would be imprudent to assume otherwise.

Box 4.4. **Fiscal policy assumptions used in the stylised scenario**

The fiscal consolidation path

The fiscal path that has been assumed in the baseline scenario from 2013 onwards is one in which there is gradual and sustained increase in the underlying fiscal primary balance sufficient to ensure that the ratio of government-debt-to-GDP is stable over the medium term given long-term trend growth and current long-term interest rates. It should be noted that in many cases this assumption implies a degree of fiscal consolidation which is less ambitious than incorporated in current government plans.[1] In addition, the stylised fiscal rule applied here is not necessarily consistent with national or supra-national fiscal objectives, targets or rules.

The basis for the fiscal rule can be derived from the government budget identity, whereby the change in the net government debt-to-GDP ratio (d) is explained by the primary deficit ratio ($-pb$) plus net interest rates payments on the previous period's debt, where is the effective interest rate paid on net government debt, so that approximately:

$$\Delta d_t = - pb_t + (i_t - g_t)\, d_{t-1},$$

where g is the nominal GDP growth rate. Then to avoid an ever-increasing debt-to-GDP ratio (so that $\Delta d_t \leq 0$), and if the effective interest rate on debt exceeds the nominal growth rate, the required primary balance (pb^*) must be in surplus and by a magnitude which is approximately given by:

$$pb^*_t \geq (i_t - g_t)\, d_{t-1}$$

To operationalise this rule the rate of growth g is taken to be the nominal growth rate of potential output over the medium term and i is the long-term interest rate on government debt (towards which it is assumed the effective interest rate on debt will tend). In practice a slightly more elaborate version of this rule is used to distinguish between the rate of interest on government liabilities and that earned on government assets (the latter has historically been typically lower than the former). Then for each year, starting with 2012, if the underlying primary balance (adjusted for cyclical effects) satisfies this condition it is held stable as a share of GDP. Otherwise, for each year that the underlying primary balance does not satisfy this condition the fiscal stance is tightened by raising the underlying primary balance by ½ per cent of GDP per annum, through a combination of a reduction in government spending and higher taxes, until the condition is satisfied. In practice, achieving the target primary balance does not immediately stabilise debt because dynamics in the model have to fully unwind. For example, the implicit interest rate paid on existing government debt will be different from the current long-term bond rate used in the rule, but the former is assumed to converge on the latter.

The implied pattern of fiscal consolidation varies greatly across countries according to this rule: for over one-third of countries which are already running a primary surplus or which are running a primary deficit which is explained by cyclical factors, the rule does not require any consolidation; other countries which in 2012 start out with large underlying deficits require more than a decade of continuous consolidation (the United States and Japan); but most OECD countries lie somewhere in between these extremes. Japan is the only country for which the required consolidation to stabilise debt (over 8% of GDP in 2012)) is not achieved by 2025 given the assumed pace of consolidation of ½ percentage point of GDP per annum. It is also noteworthy that a number of highly indebted countries require little further consolidation to stabilise debt, in part reflecting the arithmetic that for such countries the overall fiscal balance consistent with stable debt will be a substantial deficit. Of course, a higher level of debt also implies a greater risk from a range of shocks.

Other fiscal assumptions

There are no further losses to government balance sheets as a result of asset purchases or guarantees made in dealing with the financial crisis.

Effects on public budgets from population ageing and continued upward pressures on health spending are not explicitly included or, put differently, implicitly assumed to be offset by other budgetary measures.

1. For example, in Ireland the plan is to bring the deficit down to below 3% of GDP by 2014 and in the United Kingdom the announced pace of consolidation to 2015/16 would be roughly three times as fast.

Table 4.4. **Consolidation requirements to stabilise debt over the long-term**

As per cent of potential GDP

	Underlying primary balance in 2010	Underlying primary balance required to stablise debt[1]	Required change in underlying primary balance	Projected Change in underlying primary balance in 2012-10	Requirement beyond 2012
	(A)	(B)	(C) = (B) - (A)	(D)	(C) - (D)
Australia	-1.6	0.0	1.6	2.8	-1.2
Austria	-1.2	0.5	1.7	1.4	0.2
Belgium	1.3	0.6	-0.7	1.4	-2.1
Canada	-2.8	-0.5	2.3	1.8	0.5
Czech Republic	-2.9	0.5	3.4	2.2	1.2
Denmark	-0.1	0.0	0.1	0.5	-0.3
Finland	-0.6	-0.5	0.1	1.2	-1.1
France	-3.2	1.0	4.3	2.2	2.1
Germany	-0.7	0.8	1.6	1.1	0.5
Greece	-0.3	3.5	3.8	2.9	0.9
Hungary	2.4	2.7	0.3	1.3	-1.0
Iceland	-1.2	0.6	1.9	5.7	-3.8
Ireland	-5.5	1.7	7.2	6.6	0.6
Italy	2.0	2.3	0.3	1.7	-1.4
Japan	-5.5	3.7	9.2	0.8	8.4
Korea	1.0	-3.3	-4.3	1.2	-5.5
Luxembourg	0.6	0.1	-0.4	1.6	-2.0
Netherlands	-2.0	0.3	2.3	1.5	0.8
New Zealand	-4.0	0.1	4.0	1.2	2.9
Norway	-4.1	-2.3	1.8	-1.1	2.9
Poland	-5.3	2.0	7.3	2.8	4.4
Portugal	-4.3	1.0	5.3	5.2	0.1
Slovak Republic	-5.3	1.2	6.2	3.8	2.4
Spain	-4.7	0.0	4.7	3.4	1.3
Sweden	1.9	-0.3	-2.2	1.1	-3.3
Switzerland	0.0	-0.1	-0.1	0.3	-0.3
United Kingdom	-5.0	1.2	6.2	3.0	3.2
United States	-7.0	1.4	8.5	3.1	5.3
Euro Area	-1.4	1.0	2.5	2.0	0.5
OECD	-4.1	1.3	5.3	2.2	3.2

1. Underlying primary balance required in 2025, based on gradual but steady consolidation paths, to stabilise debt-to-GDP ratios in the long-term baseline scenario. Debt stabilisation may take place at undesirably high levels.

Source: OECD calculations.

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inflation pressures (Bernanke, 2005; Corden, 2009), policy rates have also been very low for much of this period, and in retrospect possibly even too low in some cases (Ahrend, Catte and Price, 2006a), at a time when risk was under-priced and both asset prices and credit grew unusually fast. The eventual normalisation of financial conditions and policy rates is thus likely to involve a general increase in long-term interest rates. High and rising government debt may add upward pressure on long-term government bond yields and depress growth (Box 4.5). For the purpose of the current exercise it is assumed that when gross government indebtedness passes a threshold of 75% of GDP then long-term interest rates increase (decrease) by 4 basis points for

Box 4.5. **Evidence on the effects of fiscal imbalances on interest rates and economic growth**

Though there is a very large empirical literature on the determinants of growth, there is only a small literature that explores the impact of public debt accumulation on medium and long-term growth in advanced economies (Reinhart and Rogoff, 2010; Caner, Grennes and Koehler-Geib, 2010; Checherita and Rother, 2010; Kumar and Woo, 2010). This literature suggests an inverse relationship between initial debt and subsequent growth. In Kumar and Woo (2010), a 10 percentage point increase in the initial debt-to-GDP ratio is associated with a slowdown in annual real per capita GDP growth of about 0.2 percentage points per year, with the impact being somewhat smaller in advanced economies. There is some evidence of non-linearity, with higher levels of initial debt having a proportionately larger negative effect on subsequent growth, particularly when debt reaches a threshold of roughly 75% of GDP. The adverse growth effect stems largely from a slowdown in labour productivity growth following lower investment and slower growth of the capital stock in response to higher interest rates.

An important transmission mechanism for the macroeconomic effects of fiscal imbalances works through higher interest rates. There is a large empirical literature that examines the impact of public deficits and debt on long-term government bond yields. Among studies that analyse fiscal deficits across countries, the estimated impact of a sustained increase in the actual or projected fiscal deficit by 1% of GDP on long-term government bond yields ranges from 10 to 60 basis points, whereas studies that examine the impact of actual or projected public debt on yields typically find that an increase in public debt of 1% of GDP raises yields by at most 10 basis points.[1] The relative magnitudes of the deficit and debt effects are broadly reconcilable through the government intertemporal budget constraint. Laubach (2009) has typical estimates for the United States: long-term yields increase about 25 basis points per percentage point sustained increase in the projected deficit-to-GDP ratio, and 3 to 4 basis points per percentage point increase in the debt-to-GDP ratio.

Evidence is also accumulating that interest rate effects may be non-linear and may tend to be greater at higher levels of indebtedness (*e.g.*, Faini, 2006; Ardagna, Caselli and Lane, 2004; Bayoumi, Goldstein and Woglom, 1995; Conway and Orr, 2002 and O'Donovan, Orr and Rae, 1996). For instance, Égert (2010) finds that the difference between short-term and long-term interest rates appear to be a non-linear function of public debt for the G7 countries (excluding Japan) in recent years. The estimation results indicate a 4 basis point increase in long-term rates relative to short-term rates for each percentage point of GDP in public debt above 76%.

There is also reason to believe that interest rates may now be more responsive to fiscal imbalances and other country-specific factors than suggested by some older empirical literature. Firstly, non-linearities in the response of long-term interest rates to public debt would mean that the responsiveness of interest rates may be greater at the higher post-crisis levels of indebtedness. In addition, one consequence of the crisis may be a permanent increase in risk aversion and hence risk premia as well as a greater focus on the country-specific factors that determine these risk premia. Recent studies of euro area sovereign spreads show that early in the crisis the surge in global risk aversion was a diminant influence on sovereign spreads, while recently country-specific factors such as short-term refinancing risks and long-term fiscal sustainability have started playing a more important role (Haugh, Ollivaud and Turner, 2009; Baldacci and Kumar, 2010; Hagen, Schuknecht and Wolswijk, 2010; Sgherri and Zoli, 2009; Caceres, Guzzo and Segoviano, 2010 and Dötz and Fisher, 2010). Country-specific factors that are found in these studies to influence government bond yields include financial-sector soundness, price competitiveness, fiscal track records, tax-to-GDP ratios, short-term refinancing needs, expected future deficits, bond market liquidity as well as a range of other institutional and structural factors.

Box 4.5. **Evidence on the effects of fiscal imbalances on interest rates and economic growth** *(cont.)*

In light of this empirical evidence, large fiscal deficits and rising public debt are likely to put significant upward pressures on sovereign bond yields in many advanced economies over the medium term. Countries with a high share of government debt held domestically, notably Japan, might find it easier to issue new government bonds. However, real government bond yields in Japan, which undercut those in the United States and the euro area by a large margin in the 1990s and most of the present decade, have been rising since the end of 2008 and are now roughly in line with real yields in the United States and the euro area. In some countries, notably the United States and Germany, deteriorations in fiscal positions do not yet seem to have put upward pressure on long-term interest rates, a situation partly explained by investors' perception of these countries as safe havens in times of great uncertainty. It is impossible to predict how long flight-to-safety effects will dominate investors' concerns on fiscal sustainability, but history suggests that expectations can shift suddenly (see Reinhart and Rogoff, 2009).

1. See OECD (2009a) for a partial survey. Other recent work on the impact of fiscal imbalances on long-term interest rates includes Kinoshita (2006), Baldacci, Gupta and Mati (2010), Hauner and Kumar (2006), Ardagna, Caselli, and Lane (2004), Baldacci and Kumar (2010), Schuknecht, Hagen and Wolswijk (2009), Hagen, Schuknecht and Wolswijk (2010), Dötz and Fisher (2010), Checherita and Rother (2010), Sgherri and Zoli (2009) and Caceres, Guzzo and Segoviano (2010).

every additional percentage point increase (decrease) in the government debt-to-GDP ratio – an assumption consistent with the work summarised in Box 4.5. An important exception is Japan which has seen a substantial increase in indebtedness over the last two decades with little effect so far on interest rates, probably because of the high proportion of debt which is financed domestically given the large pool of domestic savings and the stable domestic institutional investor base. To take this into account, and again erring on the optimistic side, the responsiveness of interest rates to debt in Japan is assumed to be only one-quarter that for other countries. On this basis, the increase in government debt compared to pre-crisis levels could eventually add over 100 basis points to OECD long-term interest rates.

… spending pressures from ageing populations…

- On the spending side of general government budgets, additional pressures arise from ageing populations. On unchanged policies, and generally conservative assumptions, increases in spending on health care, long-term care and pensions over the next 15 years are estimated to amount to between 1% and 5½ per cent of GDP in the OECD area, largely as a result of ageing (Table 4.5). In the typical OECD country, preventing or offsetting these pressures requires measures amounting to ¼ per cent of GDP every year over the coming 15 years, just to keep the underlying primary deficit unchanged, although it might be slightly less on average for the larger OECD countries. Such measures have been assumed but not specified in the baseline and have been assumed not to affect potential output estimates. By contrast, adverse demographic trends are taken into account in estimates of potential output growth.

Table 4.5. **Projected changes in ageing-related public spending for selected OECD countries**

Change 2010-25, in percentage points of GDP

	Health care	Long-term care	Pensions	Total
Australia	0.5	0.4	0.3	1.2
Austria	1.2	0.4	0.7	2.3
Belgium	1.0	0.4	2.7	4.1
Canada	1.4	0.5	0.6	2.5
Finland	1.3	0.6	2.7	4.6
France	1.1	0.3	0.4	1.8
Germany	1.1	0.6	0.8	2.5
Greece	1.2	1.0	3.2	5.4
Ireland	1.2	1.1	1.5	3.9
Italy	1.2	1.0	0.3	2.5
Japan	1.5	1.2	0.2	2.9
Luxembourg	1.0	0.9	3.5	5.5
Netherlands	1.3	0.5	1.9	3.7
New Zealand	1.4	0.5	2.4	4.2
Portugal	1.2	0.5	0.7	2.4
Spain	1.2	0.8	1.2	3.2
Sweden	1.1	0.2	-0.2	1.1
United Kingdom	1.1	0.5	0.5	2.0
United States	1.2	0.3	0.7	2.1

Note: OECD projections for increases in the costs of health and long-term care have been derived assuming unchanged policies and structural trends. The corresponding hypotheses are detailed in OECD (2006) under the heading "cost-pressure scenario". Projections of public pension spending are taken from the CBO (2010) Long-term Budget Outlook and Visco (2005) for the United states, from the Office of the Parliamentary Budget Officer (2010) and Visco (2005) for Canada, from the European Commission (2009) for EU countries, from Fukawa and Sato (2009) for Japan, from Commonwealth of Australia (2010) for Australia, from New Zealand Treasury (2009) for New Zealand, from Visco (2005) for Switzerland and from Dang *et al*. (2001) for Korea. In some cases this has required linear interpolation to derive the effects over the period 2010-25.

Sources: See bibliography.

StatLink http://dx.doi.org/10.1787/888932348187

… and guarantees provided to financial institutions

- Future fiscal outcomes may be influenced by guarantees on assets of financial institutions provided by governments during the crisis. Such contingent government liabilities are particularly high in the United Kingdom at around 40% of GDP; they exceed 15% of GDP in France and Germany (IMF 2010a). Implicit guarantees for systemically important financial institutions also make public budgets more vulnerable to any future financial crises. The scenario assumes that these guarantees will not have to come into action over the period and will not translate into actual government additional debt and deficit.

Slow fiscal consolidation implies a further increase in debt

OECD general government net and gross debt is projected to increase by about 30 percentage points of GDP by 2012 relative to pre-crisis levels and, under the assumptions set out above, by about a further 13 percentage points of GDP before it stabilises thereafter. The number of OECD countries with gross debt levels that exceed 100% of GDP would rise from three prior to the crisis to eight by the next decade. The change in net debt levels, as a percentage of GDP, is similar to that for gross debt,

although the level of net debt is lower, particularly for Japan, Canada and the Nordic countries.[4] The magnitude of the area-wide increase in debt is partly a reflection of the magnitude of the increase in some of the largest countries; in particular the increase in debt by 2025 compared to pre-crisis levels for the United States and Japan is around 40 and 70 percentage points of GDP, respectively, whereas the median increase across all OECD countries is around 25 percentage points of GDP.

Reducing debt levels would require much greater consolidation

The slow pace of consolidation and the high levels of debt reached may in practice not be sustainable in some countries. The extent of fiscal consolidation needs to be much larger if the aim is to significantly reduce debt-to-GDP ratios rather than merely stabilise them. Such a reduction would avoid high debt levels and associated high interest rates undermining economic growth and provide a safety margin for public finances to meet future crises. The total increase in the underlying primary balance from 2010 which is required to reduce debt either to pre-crisis (2007) levels or to 60% of GDP by 2025 is 9½ and 11½ percentage points of GDP, respectively, for the OECD as a whole (Figure 4.1).[5] This compares to the total consolidation of 5¼ percentage points of GDP projected in the baseline which would be just sufficient to stabilise OECD gross government debt by 2025, but at the much higher levels of over 110% of GDP.

The timing of consolidation

The timing of consolidation needs to balance short and long-term considerations

Fiscal consolidation needs to be conducted in a way that does not unduly reduce economic growth in the short or long term. Indeed, the time profile and strength of consolidation should be determined by the strength of the recovery, the magnitude of short-term fiscal multipliers, the scope for monetary policy to offset the demand constraining effects and also on the cost of delaying consolidation in terms of risks to credibility, long-term interest rates and economic growth in the medium and long run.

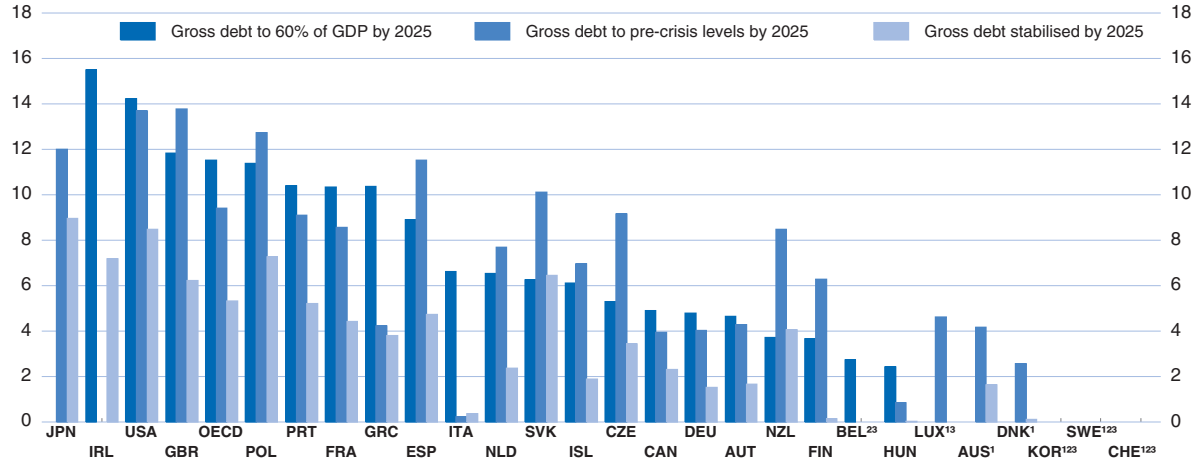
Typical multipliers imply that consolidation slows growth

Estimates of standard short-run fiscal multipliers suggest that rapid consolidation produces short-term headwinds that may weigh on activity and the recovery. A recent review of fiscal multipliers showed these to be

4. Net debt is in many respects the superior concept and underpins the fiscal rule described in Box 4.4. However, gross debt is more comparable across countries and represents what has to be rolled over and financed through government debt issuance. Moreover, valuation of government assets may in many cases be subject to considerable uncertainty.
5. To achieve the pre-crisis and 60% debt targets, these calculations assume a constant annual improvement in the primary balance over the period 2013-25, on top of the projected improvement over the period 2010-12 shown in column (D) of Table 4.4. These alternative calculations do allow for the effect that lower debt might have in lowering interest rates by 4 basis points for each percentage point reduction in the debt-to-GDP ratio while the ratio remains above 75% of GDP.

Figure 4.1. **Total consolidation required from 2010 to achieve alternative debt targets**

Total increase in the underlying primary balance, as a percentage of GDP



1. No consolidation is needed to achieve the 60% debt-to-GDP ratio by 2025.
2. No consolidation is needed to achieve the pre-crisis debt-to-GDP ratio.
3. No consolidation is needed to stabilise the debt-to-GDP ratio.

Note: The chart shows the total consolidation required to achieve a gross general government debt-to-GDP ratio equal to 60% of GDP and the pre-crisis (2007) ratio by 2025, assuming the projected improvement in the underlying primary balance between 2010-12 is as shown in column (D) of Table 4.4 with an additional constant improvement in the underlying primary balance each year between 2013 and 2025 calculated so as to achieve the debt target in 2025. These consolidation requirements are then compared with that required to stabilise the debt-to-GDP ratio by 2025 (at higher levels), as described in the baseline scenario summarised in Tables 4.3 and 4.4. The required consolidation for Japan to achieve a debt ratio of 60% of GDP and for Ireland to achieve the pre-crisis debt ratio are not shown, because in both cases it would call for a very large degree of tightening if this were to be achieved by 2025.

Source: OECD calculations.

StatLink http://dx.doi.org/10.1787/888932346382

varying with trade openness and with the size of public sectors and suggested magnitudes of around ½ to 1 for government spending and tax multipliers that are significantly lower (Table 4.6).[6]

Multipliers are sensitive to constraints on monetary policy...

Multiplier effects will also be influenced by the macroeconomic environment including the scope to cut policy interest rates, the extent of initial fiscal imbalances, the credibility of consolidation plans and the international environment including whether many countries are undertaking consolidation at the same time. This can be illustrated by simulations on the OECD's Global Model (Hervé *et al.*, 2010) of a fiscal consolidation which is equally composed of spending cuts and direct tax increases (Table 4.7). The simulations suggest that the contractionary effects of consolidation could be up to one-third greater by the second year without a monetary policy offset. Thus, multiplier effects will be smaller and so fiscal consolidation could be more rapid if there is scope for monetary policy to provide an offset to fiscal tightening. At present, with policy interest rates close to zero in most OECD areas, monetary

6. For a review of fiscal multiplier estimates from a selection of macroeconomic models, see OECD (2009a).

Table 4.6. **Short-term fiscal multipliers**

	Expenditure			Revenue	
	Government consumption	Transfers to households	Investment	Indirect tax	Personal income tax
United States	0.90	0.70	1.10	-0.40	-0.70
Japan	0.90	0.70	1.10	-0.40	-0.70
Germany	0.60	0.50	1.00	-0.30	-0.50
France	0.80	0.60	1.00	-0.30	-0.60
Italy	0.80	0.60	1.00	-0.30	-0.60
United Kingdom	0.70	0.60	1.00	-0.30	-0.60
Canada	0.70	0.55	1.00	-0.30	-0.55
Belgium	0.50	0.40	0.90	-0.20	-0.40
Switzerland	0.60	0.45	0.90	-0.30	-0.45
Netherlands	0.50	0.40	0.90	-0.20	-0.40
Sweden	0.60	0.45	0.90	-0.30	-0.45

Note: Percentage effect on GDP, averaged over the first and second year, of a 1% of GDP change in the relevant budget component. Estimates are based on the survey of results described in Box 3.1 of the OECD Economic Outlook Interim Report of March 2009, adjusted for openness as measured by the ratio of imports to the sum of GDP and imports.

Source: OECD Economic Outlook, Interim Report (March 2009), Appendix 3.2.

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Table 4.7. **The effect of fiscal consolidation on GDP**

	Multiplier		No. of years before positive effect on		Long-run rise in level of GDP[1] (%)
	Year 1	Year 2	GDP Growth	Level of GDP	
United States					
(A) With policy rate response	0.72	0.94	2	5	0.1
(B) With zero policy rate bound	0.81	1.26	3	6	0.0
(C) With fall in risk premia	0.61	0.76	2	4	0.3
(D) With OECD-wide consolidation	0.70	0.90	2	4	0.3
Euro area					
(A) With policy rate response	0.88	1.07	2	5	0.1
(B) With zero policy rate bound	0.90	1.26	3	6	0.1
(C) With fall in risk premia	0.81	0.89	2	4	0.3
(D) With OECD-wide consolidation	0.88	1.04	2	5	0.3
Japan					
(A) With policy rate response	0.56	0.85	4	7	0.0
(B) With zero policy rate bound	0.56	0.85	4	7	0.0
(C) With fall in risk premia	0.55	0.70	4	6	0.1
(D) With OECD-wide consolidation	0.73	0.92	4	6	0.2

Notes: Results based on simulations of the OECD's Global Model.

(A) Fiscal consolidation in one OECD region to generate an improvement in the primary balance equal to about 1 percent of GDP, and an eventual reduction in the government debt-to-GDP ratio of 10 percentage points. Tax rates are adjusted over the medium term to acheive the debt target. Consolidation measures are initially equally distributed between spending cuts and tax increases. A Taylor rule determines short-term policy interest rates, although in the case of Japan the zero bound prevents any cut in policy rates over the first 3 years.

(B) As per (A), but with unchanged policy rates over the first 3 years.

(C) As per (A), but with interest rates on long-term government bonds falling by 4 basis points for each percentage point reduction in the government debt ratio.

(D) As per (C) but with all OECD countries simultanously undertaking fiscal consolidation. The multiplier is calculated in respect of the consolidation taking place in the home country.

1. The long-run rise in the the level of GDP is based on the average increase in potential output after 10-15 years.

Source: OECD calculations.

StatLink http://dx.doi.org/10.1787/888932348225

authorities are constrained in providing additional stimulus.[7] If the recovery proceeds at the projected pace, the constraints on monetary policy should be less of a concern for fiscal consolidation from 2012 onwards for most countries and the pace of normalisation of interest rates could then be adjusted to partially offset any economic weakness resulting from budget improvements.

... as well as to the scale of initial fiscal imbalances

The contractionary effects of fiscal consolidation could also be partially offset to the extent that credible consolidation programmes reduce the risk of sovereign debt default, reducing risk premia on government securities, which, in turn, can lower interest rates (or raise them less than without consolidation) more generally. The responsiveness of long-term interest rates to substantial consolidation is likely to be stronger at high debt levels. In the simulations on the OECD's Global Model, long-term interest rates fall as a consequence of credible debt reduction by 10% of GDP which is achieved over the medium term, damping short-run contractionary multipliers by up to one-fifth. While fiscal consolidation remains contractionary in the short run, lower long-term interest rates can permanently boost output in the longer run by raising investment and productivity. The Global Model simulations reported in row (C) of Table 4.7 suggest that for the United States and the euro area, for each 10 percentage point reduction in the debt-to-GDP ratio the level of long-run potential output is raised by 0.3%.[8] Moreover, it should be emphasised that whereas the short-term losses in output are temporary, the long-term gains are likely to be permanent.

Spillover effects will boost both short-term losses and long-term gains in output

With most OECD countries consolidating their budget positions at the same time over the coming years, fiscal retrenchment in one country should take the spill-over effects from similar measures in other countries into account so as not to withdraw overall demand too rapidly. According to the OECD's Global Model, the spill-over effects between the major OECD areas, in terms of the impact on GDP of similar consolidation efforts in all key OECD regions simultaneously, would amount to between one-quarter and one-third of the size of the own-country fiscal multiplier (comparing rows (C) and (D) in Table 4.7).[9] However, within regions, such as the euro area, strong trade linkages are likely to magnify the spill-over effects, underlining the importance of implicit or explicit coordination at the regional level. At the same time, while simultaneous fiscal consolidation

7. In practice, this constraint may be less binding to the extent that central bank quantitative easing measures can influence asset prices and longer-term interest rates.
8. The long-run boost to GDP from a lower debt-to-GDP ratio is smaller for Japan because long-term interest rates are assumed to be less sensitive to government debt (see the earlier discussion).
9. Fiscal consolidation in the OECD area would likely result in a depreciation of OECD currencies *vis-à-vis* non-OECD currencies which, in turn, would tend to increase external demand for OECD products and provide some offset to the reduction in domestic demand caused by the fiscal retrenchment.

will tend to increase the short-run temporary losses in output, it will also tend to boost the permanent longer-run gains in GDP.

In some circumstances fiscal consolidation may raise output in the short run

The OECD Global Model simulations suggest that fiscal consolidation is typically contractionary in the short run and expansionary only after two to four years, a finding that aligns with the bulk of empirical evidence on this matter.[10] Several studies have, however, found evidence that fiscal contractions can be expansionary even in the short run (Giavazzi and Pagano, 1990, 1996; Alesina and Perotti, 1995, 1997 and Alesina and Ardagna, 1998, 2009). Though the direct demand effect of fiscal retrenchment is clearly always negative, an indirect positive effect on aggregate demand can occur through an induced change in expectations if the measures taken are understood to be part of a credible medium-term fiscal programme designed to prevent a larger, more disruptive consolidation effort in the future (Hellwig and Neumann, 1987). The expectations effect may work through a reduction in uncertainty, lowering precautionary savings and lowering the option value of waiting by consumers to buy durables and by firms to make investment decisions (Blanchard, 1990). Expectations can also work through the government intertemporal budget constraint: a cut in the deficit today means government debt will grow more slowly, so that a given level of future government spending is consistent with lower future taxes. This may raise private demand immediately, especially if it is distortionary taxes that are expected to be lower in the future. Expectations can also work through interest-rate effects: a fiscal adjustment believed to be credible and to reduce the probability of sovereign default may lower the risk premium on government bonds and pull down other interest rates, stimulating private demand components (Alesina, 2010).

Current conditions make positive expectational effects more likely

Positive expectational effects from consolidation are more likely, the closer a country is to a critical debt level beyond which output is thought to be negatively affected. Recent OECD work assessing "Ricardian equivalence" suggests that the private-public saving offset becomes larger with increasing government debt levels (Röhn, 2010). These considerations suggest non-linearities in the output response to a fiscal contraction, with positive effects more likely from higher debt levels and more permanent changes. Given that many OECD countries have high public debt levels and require significant and permanent deficit reductions, it seems more likely that fiscal consolidation may now have less contractionary effects than what has been observed in more normal times.

10. The latest evidence is from the IMF (2010b), which finds that fiscal consolidation typically lowers output and raises unemployment in the short term.

Faster consolidation could imply short-term output losses for long-term gains

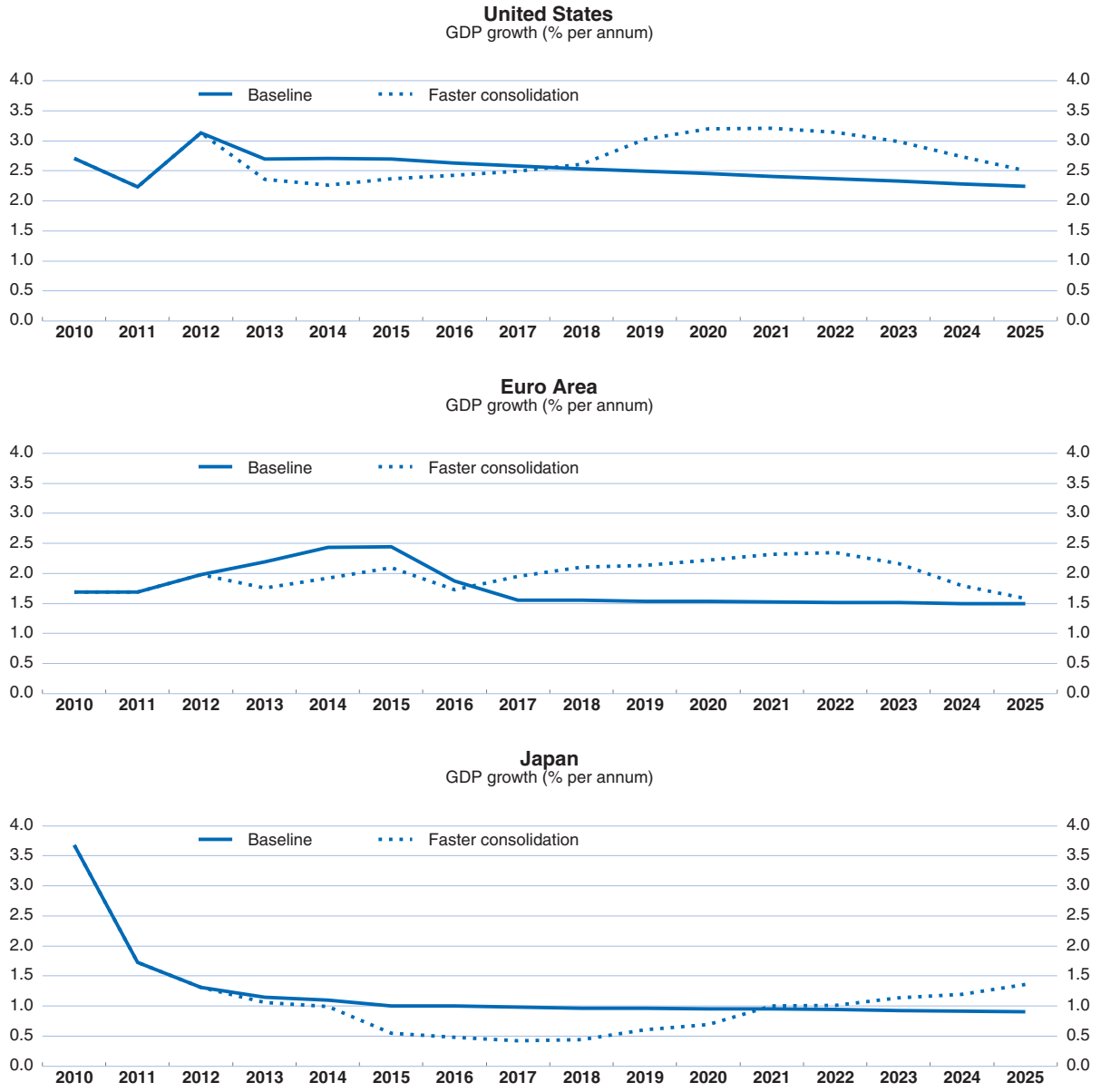
Overall, the consolidation planned by countries in the OECD area appears to be appropriate for 2011, and going beyond the assumed consolidation for 2012 would appear to put the continued closing of output gaps at risk in many countries. Beyond 2012, in many countries there should be greater scope for consolidation to proceed more rapidly than the modest pace assumed in the stylised baseline. An alternative scenario of more rapid fiscal consolidation has been generated on the OECD Global Model by assuming that the pace of consolidation doubles to an *ex ante* improvement in the primary balance of 1 percentage point of GDP per annum from 2013; this is maintained for four years for the euro area, and six years for the United States and Japan (although in the case of Japan faster consolidation is delayed until 2015, when short-term interest rates are less constrained by the zero bound, so that monetary policy can be supportive). In all cases, the consolidation is split equally between spending cuts and direct tax increases and it is assumed that consolidation plans are credible so that risk premia immediately fall by 4 basis points for each percentage point reduction in debt that is eventually achieved by 2025. Faster fiscal consolidation does imply initially a weaker recovery, but beyond 2017 for the United States and euro area (and 2019 for Japan) growth is boosted (Figure 4.2) and there are permanent gains in the level of potential output. In addition, the government debt-to-GDP ratio is brought back close to pre-crisis levels in the United States and euro area and put on a clear downward trend in the case of Japan (Figure 4.3).

Instruments of consolidation

While effective consolidation appears to favour spending restraint…

For most countries, present consolidation plans envisage some mix of spending restraint and revenue-raising measures. If current spending and revenue collection arrangements reflect optimal public choice, with the marginal benefit of additional spending equal to the marginal costs of a corresponding tax hike**,** a case could be made to share consolidation efforts equally between spending cuts and tax hikes. Also, with unsustainable revenue buoyancy prior to the crisis having resulted in spending increases in some countries and tax cuts in others, it might be appropriate to revert back to earlier spending and revenue norms. On the other hand, OECD work has highlighted a number of arguments and empirical findings suggesting that consolidation driven by cuts in primary current expenditures, such as government consumption and social transfers, is likely to be more successful in reducing deficits than consolidation based on tax increases (Box 4.6). In particular, the likelihood of sustaining consolidation efforts until debt sustainability is reached is higher when governments tackle politically sensitive areas, such as social transfers (Guichard *et al.*, 2007). Given the large consolidation needs at present, these practical consolidations favour spending-based budget retrenchment over measures to increase revenue.

Figure 4.2. **The effect of more rapid consolidation on growth**



Note: The faster consolidation scenario is generated on the OECD Global Model.
Source: OECD calculations.

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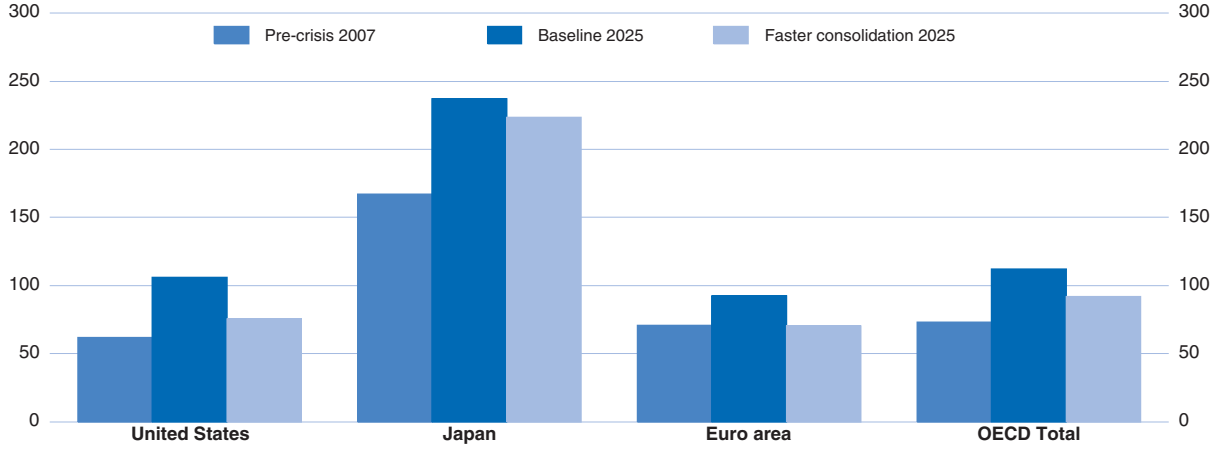
... various policy objectives matter for the choice of consolidation instruments

The choice of consolidation instruments needs to take into consideration their impact on a number of policy objectives beyond budget consolidation, including short-term aggregate demand, economy-wide efficiency and equity, as well as their political acceptance. Tables 4.8 and 4.9 give a tentative assessment of the impact of different consolidation instruments on key government objectives and a summary of their potential budgetary effects, respectively. While the discussion below highlights the relative advantages and disadvantages of different

Figure 4.3. **The effect of more rapid consolidation on government debt**

Gross government debt-to-GDP ratio (%)



Note: Fiscal consolidation including exchange rate response.

Source: OECD calculations.

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Box 4.6. **What factors drive consolidation? Experience in the OECD**

Previous OECD empirical work (Ahrend, Catte and Price, 2006b; Guichard *et al.*, 2007) has studied a large number of historical consolidation episodes and indicates that there are a number of policy and other factors that are associated with fiscal consolidation efforts and influence their outcome:

- *Starting consolidation episodes:* Large initial deficits and high interest rates helped to prompt fiscal consolidation. More generally, signs of macroeconomic stress, including high inflation, currency depreciation and being at the trough of the cycle, raised the chance of consolidation starting. The interest rate effect is again confirmed by recent experience in the OECD area, where higher interest rates (actual or threatened) have helped to catalyse a spate of consolidation announcements.
- *Size of consolidation*: Large initial deficits and high interest rates are also associated with a larger overall size of consolidation achieved over a consolidation period. A larger weight on current expenditure, such as social transfers, was associated with a significantly larger size of the fiscal adjustment. However, the empirical association between current spending cuts and the size of consolidation could also just reflect that governments more determined to consolidate are more willing to cut spending.
- *Reaching debt sustainability:* Consolidation episodes that began under weak economic activity had a higher probability of success in the sense of stabilising the debt-to-GDP ratio. A greater weight on cuts in social spending also tended to increase the probability of success. Rather than direct causality, however, a reason for this could be that governments more committed to achieving fiscal sustainability may also be more likely to reform politically sensitive areas.
- *Institutions:* Budget balance rules combined with expenditure targets were found to encourage longer and larger consolidations than a budget balance rule alone. Using a spending rule on top of the budget rule also helped achieving and maintaining a primary balance that was sufficient to stabilise the debt-to-GDP ratio. However, it is uncertain whether this is because well-designed rules are effective or because prudent governments and/or electorates are more likely to institute a rule.
- *Monetary policy:* An accommodating monetary policy stance in the initial stages of the consolidation phase was found to encourage longer consolidation episodes and larger consolidation achievements. It should be noted, however, that the causality might run in the other direction as well, as central banks find it easier to adopt a more accommodative monetary policy stance if strong commitment to serious fiscal consolidation contributes to underpinning price stability.

Table 4.8. **Consolidation instruments and objectives**

	Fiscal effect	Equity	Short-run Demand	Medium-term growth	Policy acceptance
Public sector consumption and investment					
Wage Rates	+++	?	- -	+	-
Employment	++	?	-	+	- -
with efficiency gains	++	0	-	++	-
with no efficiency gains	++	-	-	0	- -
Competitive tendering of procurement	+	?	-	+	-
Subsidies and tax expenditures	++	?	-	++	- -
Pension reform					
Increase in retirement age	++	+	+	+	- -
Lower pension replacement rate	++	-	-	+	- -
Social Transfers					
Targeted cuts	++	+	-	?	-
Across the board cuts[1]	+++	- -	- -	?	- -
Income Taxes					
Across the board increases[1]	+++	-	- -	-	- -
Increase Progressivity	+	+	-	--	-
Indirect Taxes					
Remove exemptions	++	-	-	+	- -
Across the board increases	+++	-	- -	-	-
Environmental taxes / emission permits	++	?	-	?	-
Privatisation	+	?	?	+	-
Structural Reforms					
Employment increasing	++	+	?	++	?
Productivity increasing	+	?	?	++	?

Notes: Positive and negative effects are denoted by "+"and "-", uncertainty about the direction of the effect is denoted by "?". The number of "+" and "-" signs shows the strength of the effects.
1. All transfers or all tax rates changed by the same proportion in percentage points.
Source: OECD calculations.

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instruments, the trade-offs, particularly as regards equity concerns, may be less stark when considering a large package of different measures.

Spending cuts

Reducing the government wage bill and raising public sector efficiency

Cutting the government wage bill can deliver sizeable consolidation gains…

Given that employment costs account for a large part of government spending (Figure 4.4), reductions in government wage bills can improve budget positions relatively quickly, even if such measures could have sizeable negative effects on aggregate demand in the short run. Indeed, several recent consolidation plans, in particular in Germany, France, Italy, Spain, Ireland, Greece and the United Kingdom, foresee some savings on the government wage bill.

… and might as well contribute to improving cost competitiveness…

Reducing government consumption *via* wage cuts (or lower wage increases than would otherwise take place) may be more appropriate and politically easier to implement if government wages are relatively high. In particular, private sector wage restraint during the crisis might have

Table 4.9. **Fiscal effects of consolidation instruments**

Percent of GDP unless otherwise stated

	United States	Japan	Germany	France	Italy	United Kingdom	Canada
Expenditure							
Public sector wages							
Reduce share of GDP to OECD average[1]	0.3			3.4	1.3	1.7	2.1
Subsidies							
Reduce share of GDP to OECD average[1]			0.4	0.7	0.2		0.3
Social transfers							
Reduce share of GDP to OECD average[1]	0.1		5.2	5.4	5.1	0.7	
Education							
Reduce public expenditure on education as a share of GDP to OECD average[2]	0.0			0.4		0.0	
Improve efficiency[3]	1.0	0.2	0.6	0.3	0.6	0.7	
Health							
Reduce public expenditure on health as a share of GDP to OECD average[1]	0.5		1.4	2.0		0.3	0.5
Improve efficiency while maintaining increase in life expectancy[4]	2.7	0.8	1.3	1.3	1.1	3.7	2.5
Investment							
Reduce share of GDP to OECD average[1]	0.1	0.9		0.2			
Revenue							
Environmental							
Raise current taxes (fuel and motor vehicles) share of GDP to OECD average[5]	0.9						0.6
Cut GHG emissions to 20% below 1990 levels via ETS with full permit auctioning[6]	2.2	1.2	1.8	1.8	1.8	1.8	2.5
Indirect tax							
Raise share of GDP to OECD average[5]	3.0	1.9					
Property and wealth taxes							
Raise share of GDP to OECD average[5]			1.5		1.1		
Corporate taxes							
Raise share of GDP to OECD average[5]	0.6		2.2	0.6	0.2	0.1	
Personal Income Taxes							
Raise share of GDP to OECD average[5]		4.0		0.9			
Structural reforms							
Cut Nairu by 1% through labour market reform[7]	0.5	0.5	0.6	0.7	0.5	0.5	0.5

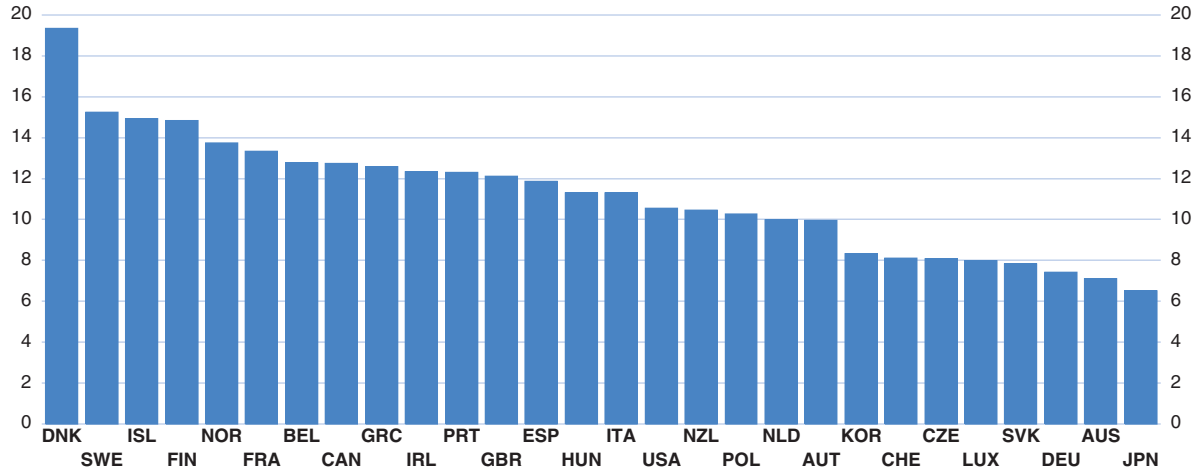
1. Data are shown for countries where moving expenditure to the OECD average would improve the fiscal balance. Based on 2007.
2 . Data are shown for countries where moving expenditure to the OECD average would improve the fiscal balance. Based on 2006.
3. Shows potential savings from reducing teacher-student ratios while holding outputs constant. Implied input cuts were applied to all staff in primary, secondary and post-secondary non-tertiary education in 2002. For details, see Sutherland *et al.* (2007).
4. Shows potential reductions in health care costs in terms of 2017 GDP by lifting efficiency while maintaining the pace of the increase in life expectancy as over the previous decade.
5. Data are shown for countries where moving revenues to the OECD average would improve the fiscal balance. Based on 2007.
6. For EU and EFTA countries, only an average effect across the area is available as the countries are grouped this way for the ENV-Linkages model simulations.
7. See Figure 4.11 below.

Source: OECD Economic Outlook 87 database; OECD Health dataset for public health expenditures; OECD Education and Training Dataset for education expenditures in 2006; Property and Wealth Tax Revenue from *OECD Revenue Statistics*; Environmental tax revenue in 2008 and GHG scenario from de Serres, Murtin and Nicoletti (2010).

StatLink http://dx.doi.org/10.1787/888932348263

raised relative wages in the government sector, in which case public sector wage adjustment would also involve a realignment. Moreover, government wage restraint can be particularly appropriate for countries in a currency union that need to improve cost competitiveness as it may lower input costs of government services for other sectors of the economy

Figure 4.4. **General government wage consumption**
Per cent of GDP, 2009



Source: OECD Economic Outlook 88 database.

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and support wage moderation overall. However, pushing wage levels in the public sector below those for comparable jobs in the private sector would create problems for retaining and attracting qualified personnel, which might not be sustainable in the longer run as the quality of service delivery would suffer.

… provided growth-enhancing public sector services are left intact

Many governments also have an opportunity to use the coming wave of retirements in their public sectors to reduce government employment without lay-offs by replacing only a certain fraction of departures. To the extent that cuts in public sector employment are associated with reductions in public sector services, care should be taken that output and quality are not unduly affected in areas that are growth enhancing, such as education, research and development and health care. Moreover, such retrenchment, if associated with lower supply of services rather than with greater efficiency, may be more prejudicial to low-income groups and, hence, conflict with equity goals and raise political resistance. Short-term demand effects of employment cuts will depend on the extent to which private employment can expand to offset employment losses in the public sector which may affect the level of net short-term budgetary savings.

Scope to raise public sector efficiency should be fully exploited…

Exploiting the scope for increasing public sector efficiency would allow costs adjustments to generate budgetary saving without reductions in outputs, increasing economy-wide efficiency and avoiding adverse equity effects. OECD studies indicate that there is significant scope to improve efficiency in big ticket public spending items, such as education and health (see Table 4.9). Thus, the budgetary impact of moving to international – or even just national – best practice in key public services can be sizeable. For the health care sector, it has been estimated that on

average across OECD countries potential efficiency gains from adopting international best practice could result in budget saving amounting to 2% of GDP (OECD 2010b). In primary and secondary education, moving to OECD highest efficiency could generate budgetary gains between one quarter and more than 1% of GDP (Sutherland *et al.*, 2007). However, higher public sector efficiency may have to be associated with wage increases for government employees, diminishing the consolidation effect.

… requiring a greater role for cost-benefit analysis

More generally, cost-benefit analysis should become more of a guide for public sector spending programmes than is presently the case. This might include evaluating to what extent market mechanisms can be utilised for the provision of public services. In particular, it might be possible to realise efficiency gains if competition between private producers can be used to lower costs in the provision of public services.

Greater use of competitive tendering in government procurement

Competitive tendering in government procurement generates savings

In the same vein, various studies indicate that adopting open tendering procedures can be associated with substantial savings in government procurement.[11] While not all non-wage public-sector spending on goods and services is suitable for competitive tendering, and the degree of fiscal federalism within a country might play some role in determining the size of individual procurement lots, there seems to be considerable variation across countries in the extent to which governments subject their procurement to open tendering (Table 4.10). For example, among the EU member countries, the value of tenders relative to government spending appears relatively low in Germany, the Netherlands, Luxembourg and Italy, suggesting significant scope to generate budgetary savings by moving to competitive tendering procedures. However, vested interests might generate some political resistance to the adoption of more open procurement practices.

Reducing subsidies and tax expenditures

Subsidy reduction should be considered…

The size of subsidies, as measured in national accounts terms, is relatively small in most OECD countries (Figure 4.5). While this indicates that budgetary and demand-restraining effects of cutting unwarranted subsidies might be relatively modest, it is important to note that the total level of subsidies is likely to be higher than national accounts suggest, both because some transfers that effectively subsidise certain sectors or activities might not be accounted for as subsidies in national accounts

11. See, for example, Ohashi (2009).

Table 4.10. **Value of open tenders and government spending in selected countries**

Per cent of GDP, 2008

	Value of tenders[1]	Expenditure on public works, goods and services[2]	Non-wage government consumption and investment[3]
Austria	2.4	19.4	10.6
Belgium	3.6	15.1	12.9
Czech Republic	5.3	25.1	17.8
Denmark	3.0	15.2	11.3
Finland	4.0	16.8	11.7
France	3.7	17.5	13.7
Germany	1.2	16.8	12.7
Greece	2.7	9.0	8.1
Hungary	5.2	19.6	
Ireland	2.4	15.8	12.5
Italy	2.3	14.1	12.4
Luxembourg	1.4	15.3	
Netherlands	1.9	25.5	19.9
Poland	7.2	18.9	
Portugal	2.6	17.4	10.2
Slovenia	5.1	15.5	
Slovak Republic	3.7	23.2	
Spain	3.6	14.9	12.6
Sweden	3.6	19.1	14.3
United Kingdom	4.4	18.8	13.2
EU27	3.1	17.2	

1. Value of tenders published in the EU Official Journal.
2. European Commission broad estimate of spending by total government sector and utilities on public works, good and services. It is an upper bound on the level of expenditure by the government sector (and relevant utilities) on goods, services and works in the economy. Utilities account for around 1/4 of the total estimate.
3. Non-wage consumption and investment by the general government sector.

Source: European Commission (2010) and OECD Economic Outlook 88 database.

StatLink http://dx.doi.org/10.1787/888932348282

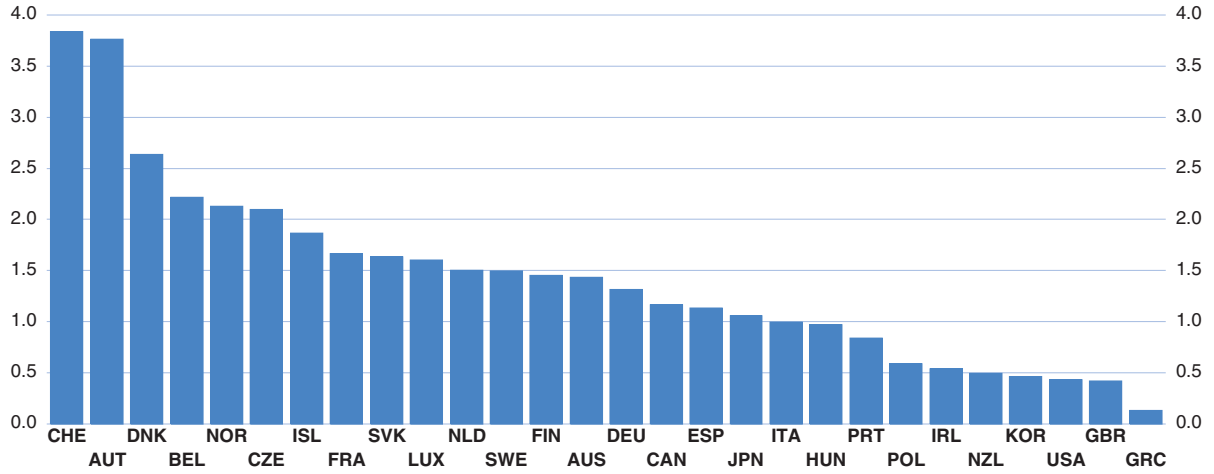
terms (notably capital investment grants) and because tax expenditures, unrecorded in the national accounts, add to subsidisation.[12]

… as many subsidies reduce economic efficiency…

In any case, subsidy reduction should rank high on the policy agenda as many subsidies may have surpassed their initial intended objective and may now have adverse economic effects. Cuts in subsidies can thus contribute to raising potential output, involving additional beneficial effects on public sector budgets in the medium term. Experience shows,

12. For example, in 2007, general government subsidies in Germany as reported in national accounts totalled €27.6 billion. By contrast, for the same year, the Subsidy Report of the federal government estimates that subsidies and tax expenditures at the level of the federal government, the states and the communities amounted to €49.7 billion. Likewise for 2007, the Kiel Institute for World Economics reported subsidies and tax expenditures by the federal government, the states and the communities of €133.6 billion. The discrepancies illustrate differences in the definition of subsidies and the coverage of tax expenditures. Moreover, there are methodological issues with respect to the computation and adding up of tax expenditures. See Bundesministerium der Finanzen (2010) and Boss and Rosenschon (2010).

Figure 4.5. **General government subsidies**
Per cent of GDP, 2009



Source: OECD Economic Outlook 88 database.

StatLink http://dx.doi.org/10.1787/888932346458

however, that such cuts are politically difficult to implement as they often conflict with vested interests and stranded investments. The crisis may nonetheless represent an opportunity to tackle issues of subsidisation that are difficult to address in normal times. It is important that governments resist replacing unwarranted subsidies and tax expenditures by regulatory measures designed to provide support to the sectors concerned (*e.g.* through price regulation or other competition-restraining measures).

… which also holds for a sizeable part of tax expenditures

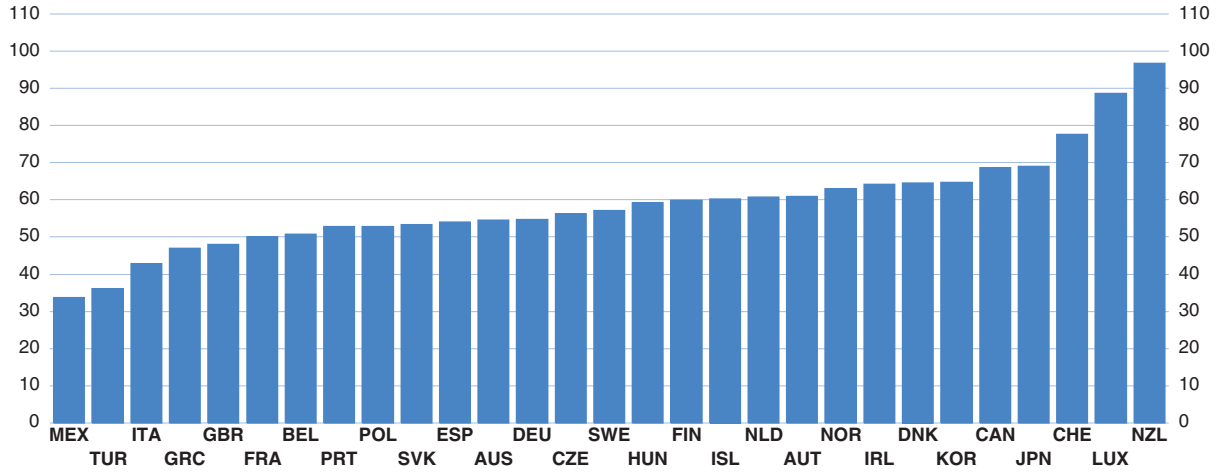
Some tax expenditures (TEs), such as earned income tax credits and payroll tax rebates for low-wage workers, aim at improving social outcomes and are often assessed as quite effective in achieving their objectives, even if they are sometimes associated with adverse incentive effects. Other TEs for social purposes produce highly unequal outcomes or are costly in reaching social targets. For example, deductions in the taxable income of parents for their children's education disproportionately benefit families in high-income segments as they increase in value the higher the families' tax bracket is. Also, the effectiveness of tax reductions for pension saving plans to generate new, as opposed to reallocated, saving for retirement purposes remains highly uncertain, with impacts on national saving likely to be negative in many cases (Antolin, de Serres and de la Maisonneuve, 2004; Yoo and de Serres, 2004). While most of the latter TEs involve some kind of distortion, some can be efficiency enhancing, notably certain types of tax preferences for R&D.

Although assessing the overall volume of TEs raises issues of definition and methodology, it is clear that in some countries tax preferences are substantial (OECD, 2010e). Similarly, there are large

differences within the OECD area with respect to the application of VAT across different types of consumption, as indicated by the "VAT revenue ratio" (Figure 4.6) reflecting for example, reduced VAT rates for restaurants, hotels, flowers, children clothes and newspapers which are difficult to justify on economic grounds.[13] While in some countries tax expenditures were reduced in the years prior to the crisis, several governments have reacted to the crisis by introducing new tax preferences. Overall, direct budgetary effects from reducing or eliminating distortionary TEs could be substantial, and associated efficiency improvements would contribute to raising potential output in the medium term.

Figure 4.6. **VAT revenue ratio in 2007**

Actual relative to theoretical VAT revenue, index increasing in efficiency



Note: The VAT revenue ratio is defined as the share of VAT revenues to consumption divided by the standard rate, expressed as a percentage ((VAT revenues/final consumption expenditure*100)/(Standard VAT rate))*100. This calculation takes the national accounts definition for final consumption expenditure (P3) which may include items not in the actual VAT base.

Source: OECD Revenue Statistics; and OECD calculations.

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Revisiting current social transfers

Cuts in social transfers should avoid conflict with equity objectives…

On average, social transfers account for around 12% of GDP (in 2007), suggesting that they can potentially contribute to the consolidation effort. Indeed, in some countries (including Germany and the United Kingdom), sizable deficit cuts are to be achieved by freezing or reducing some social transfers. While cuts in this area may provide non-negligible savings, they may have adverse consequences for equity outcomes if social transfers go mainly to low-income individuals and families as they should. Another disadvantage is that income cuts for the poor are likely to be swiftly reflected in lower aggregate demand given the higher propensity to

13. Low values of the ratio indicate an erosion of the VAT tax base, either by exemption or reduced rates, poor compliance or poor tax administration.

consume at lower income levels. Means testing could ensure that cuts in social benefits are targeted on those that are better off, but this may in turn create adverse disincentives if marginal effective tax rates increase in the income range where benefits are phased out, from already high levels in many countries.

... while strengthening incentives for labour force participation and employment...

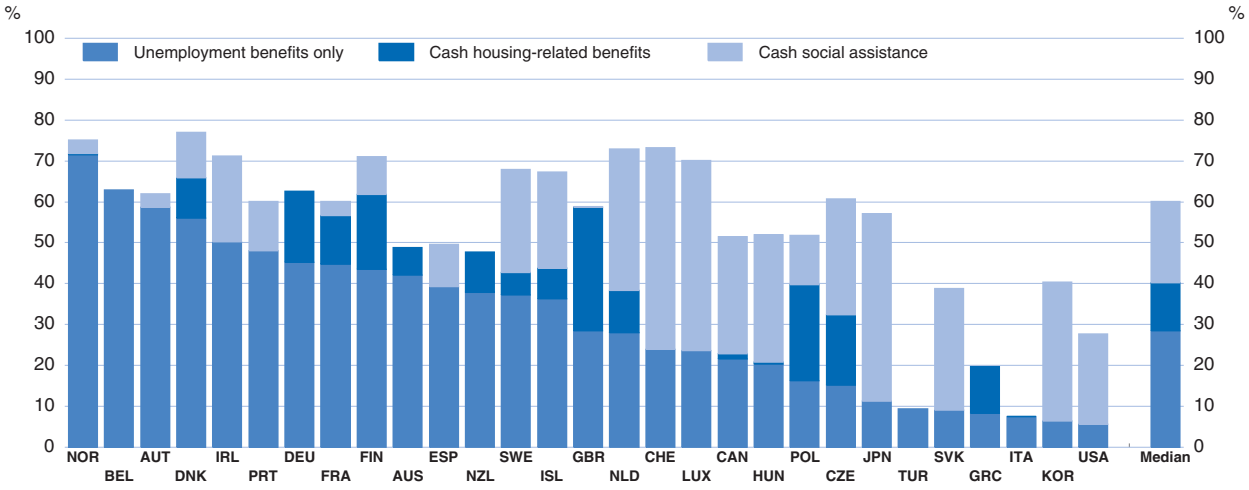
As part of the consolidation strategy, social and employment-related transfers should be revisited in terms of their effectiveness in reaching envisaged policy goals and the opportunity for reforms to increase efficiency. There is still considerable scope to better gear employment or unemployment-related benefit schemes, in combination with activation measures, to encourage work and labour force participation (OECD 2010a, 2010b).

... and contributing to activation strategies for the unemployed...

Unemployment-related income replacement paid by the general government sector accounts for some 0.8% of GDP across OECD countries (unweighted average for 2008),[14] with both duration and replacement rates differing significantly from country to country (Figure 4.7). High replacement rates and, in particular, long periods of unemployment insurance benefits until exhaustion have been found to reduce employment probabilities *ceteris paribus*, which suggests revisiting such

Figure 4.7. **Income support in OECD countries in 2007**

Average net replacement rates over a 5-year unemployment spell



Note: The average of the replacement rate in the first five years of unemployment is shown. See OECD (2009d) for further details on how these averages are calculated. Housing-related benefits are those available to families living in rented accommodation with rent plus other housing costs (*e.g.* utility bills) assumed to equal 20 per cent of the average wage. In some countries, housing-related support is covered by social assistance payments instead. Social assistance in the United States also includes the value of a near-cash benefit (Food Stamps).Net replacement rates are evaluated for a prime-age worker (aged 40) with a 'long' and uninterrupted employment record. They are averages over four different stylised family types (single and one-earner couples, with and without children) and two earning levels (67% and 100% of average full-time wages).

Source: OECD (2009d); and OECD tax-benefit models (www.oecd.org/els/social/workincentives).

StatLink http://dx.doi.org/10.1787/888932346496

14. Average without outlays for active labour market measures; source: OECD (2010c).

income support schemes. Crisis-induced extensions of benefit levels and duration should be unwound as the recovery strengthens and vacancies increase.[15] However, cuts in unemployment-related benefits run the risk of increasing inequalities and can be politically difficult to implement. Any review of income replacement schemes should therefore take into account interactions with other features of labour market policies, notably activation strategies. In particular, there might be scope to raise the effectiveness of core activation measures, such as job-search support and work-availability requirements. At the same time, ineffective activation programmes should be dropped or redesigned (see OECD, 2006b).

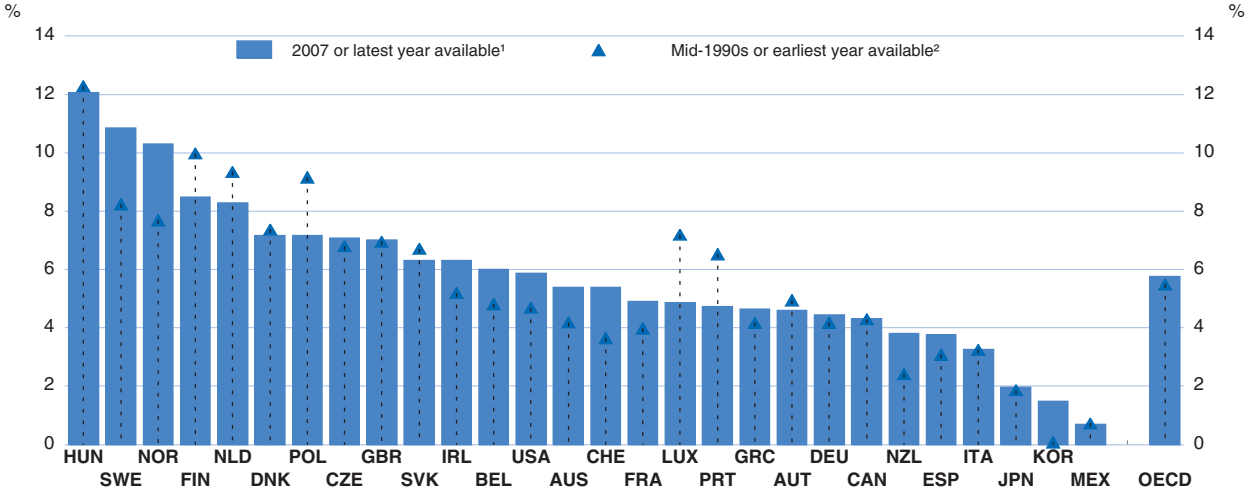
Tackling future age-related budget pressures

… and reforming disability schemes

The number of disability benefit receivers is very high in some countries, with the large dispersion across countries – from a rate of 12% in Hungary to less than 1% in Mexico – pointing to pronounced differences in eligibility conditions (Figure 4.8). Moreover, even during the past decade when economic growth was generally strong, more than half of OECD countries, including Sweden, Norway, the United States, France, Switzerland and New Zealand saw a significant increase in recipient rates. Reform of disability schemes, comprising stricter enforcement of health

Figure 4.8. **Disability benefit recipient rates**

Disability benefit recipients in per cent of the population aged 20-64 in 28 OECD countries



Note: OECD refers to the unweighted average of the 27 countries.

1. 2004 for France; 2005 for Luxembourg; 2006 for Denmark, Italy, Japan, the Slovak Republic and the United States.
2. 1996 for Belgium and Canada; 1999 for the Netherlands; 2000 for Hungary and Italy; 2001 for Ireland; 2003 for Japan and 2004 for Poland; 1995 for all other countries.

Source: OECD (2009c). Data provided by national authorities.

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15. By contrasts, extensions of coverage to groups not previously covered may in many cases have responded to a strong social need and any unwinding will need to be carefully considered.

criteria and a shift towards an appraisal of retained work capacity, including regular re-examination of residual work capacity, can likely raise labour force participation with beneficial effects for potential growth and aggregate demand. Reform along these lines would also be consistent with equity goals.

Pension, long-term care and health care reform need to be prepared now

Based on conservative estimates, age-related public spending could increase on average by 3 percentage points of GDP over the next 15 years in the OECD area, taking into account structural trends in health care spending that are not primarily driven by ageing (Table 4.5 above). Against this background, pension, long-term care and health care reform – already identified as being necessary well before the crisis – should play a prominent role in securing the sustainability of government finances and signalling the authorities' determination to do this. Preparation and implementation of legislation should start now as hurdles arise frequently in the legislative process in these areas and new legislation often has to be phased in only gradually and with considerable lags. This is particularly true for pension reform which is often associated with long grandfathering periods. To the extent pension reform is designed to raise the effective retirement age, there is a positive impact on potential output from higher labour force participation of older people. Such reform also fosters inter-generational equity as it eases the rise in the pensioners' dependency ratio and thus the increase in the fiscal burden with which the next generation will be confronted. Also, raising the retirement age may benefit aggregate demand in the near term, as people may to save less as they will face shorter retirement periods. This reinforces the case for swift legislative action. This positive demand effects would not happen if cuts in future pension outlays were based on reducing pension benefits, as households would seek to save more to make up for less retirement income in the future.

Revenue increases

Taxes

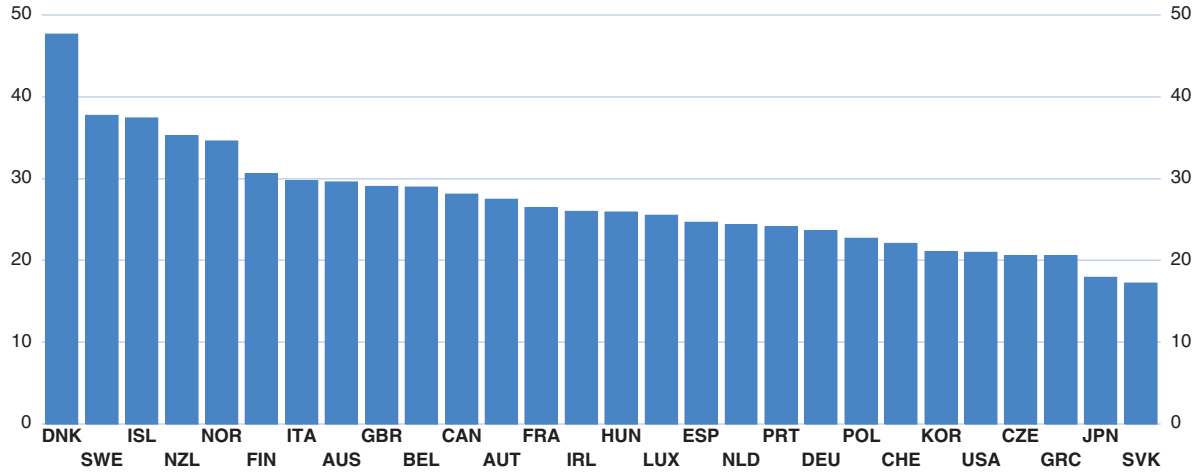
While there is some scope to increase revenues…

Announced consolidation plans generally include some revenue increases to supplement expenditure cuts. This is the case also in countries with already very high tax-to-GDP ratios (Figure 4.9), mostly the European countries, where the scope to add to the total tax burden may be more limited. The available room for tax increases would seem to be greater in the United States, Japan, the Czech Republic and the Slovak Republic, where tax-to-GDP ratios are well below the OECD average – though at least in the United States relatively low tax pressure should be seen in the context of widespread use of tax expenditures to pursue public policy goals.[16]

16. Comparison of tax and spending levels across countries is difficult. Adema and Ladaique (2009) attempt to correct measures of social spending for a wide range of institutional differences and find that cross-country differences in spending are much smaller when correcting for institutional differences.

Figure 4.9. **General government tax receipts**

Per cent of GDP, 2007



Note: Includes indirect and direct taxes.

Source: OECD Economic Outlook 88 database.

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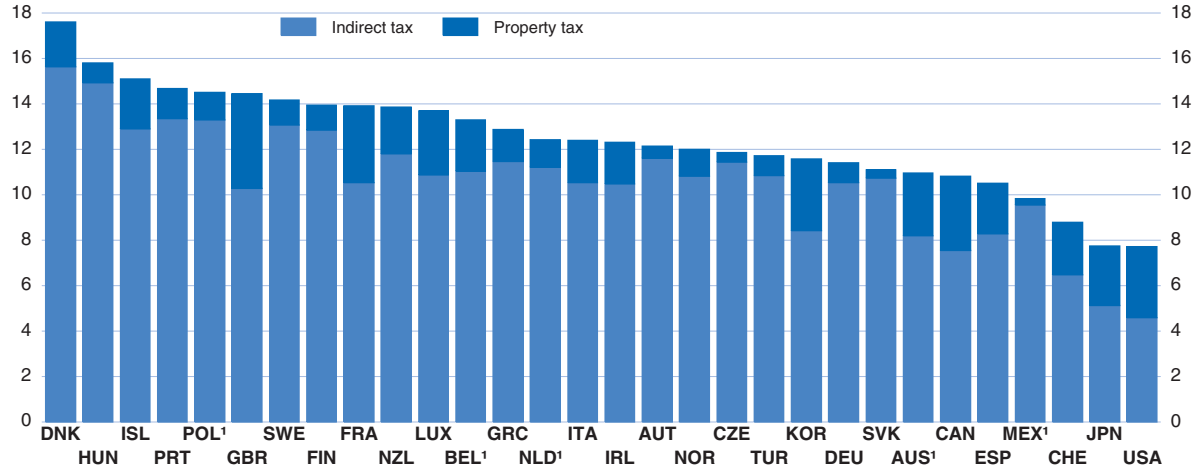
... tax increases should be implemented in the least distortionary way

To the extent that tax increases are necessary they should be implemented in the least distortionary way. Evidence suggests that recurrent taxes on immovable property have the least negative impact on growth, followed by other property taxes and then consumption taxes, whereas taxes on labour and corporate income are most harmful for growth (Johansson *et al.*, 2008). Countries vary considerably in their reliance on property and indirect taxes, suggesting that for some countries, notably the United States and Japan, the scope to raise indirect taxes is particularly large while for others, including Mexico and the Slovak Republic, the scope to increase property taxes is important (Figure 4.10). However, these two tax categories have different equity consequences. As property taxes are inherently progressive, the distributional consequences of raising them appear consistent with equity goals.[17] On the other hand, increasing the weight of consumption taxes in total tax revenues, if conducted in isolation, would reduce the overall progressivity of the tax system, which could conflict with short-term demand objectives and equity considerations and might lead to political resistance. This could be the case, in particular, if lower VAT tax rates motivated by distributional aims were to be raised to the general level. This suggests that it may be more effective to consider a package of taxation measures and to implement it gradually.

17. Due to the weak state of real estate markets, policy makers might not want to increase property taxation soon, limiting their potential contribution to generating fast budgetary improvements. As well it is sometimes seen as an equity problem to raise property taxes on households with low current income, such as pensioners. Such concerns can to some extent be mitigated by allowing property taxes to be treated as a priority claim on the property in future sales.

Figure 4.10. **Property and indirect taxes in the OECD area**
Per cent of GDP, 2008



1. Data refer to 2007.

Source: OECD, Revenue Statistics database.

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Environmental taxes

Environmental taxes can be welfare enhancing

Environmental taxes and the auctioning of emission permits are potentially important revenue sources. For example, in the United States, raising current fuel taxes to the OECD average could generate additional revenues of close to 1% of GDP (disregarding reductions in fuel consumption in response to the tax increase) (Table 4.9). Also, it has been estimated that auctioning emission permits that target a reduction in greenhouse gas emissions by 20% relative to the level prevailing in 1990 would generate revenues of 2.3% of GDP on average in the OECD area by 2020 (de Serres, Murtin and Nicoletti, 2010). Indeed, environmental taxes and revenues have the advantages that the potential tax base is wide and that, as long as they do not exceed the cost of the environmental externality, they are welfare enhancing as they help to reduce environmental damage. There is some evidence that low-income groups spend a higher share of their income on energy products than others, so that they would be relatively more affected by energy taxes, although the difference is modest (O'Brien and Vourc'h, 2001). However, a more comprehensive analysis of the distributional implications would be necessary to take into account other effects as well. For example, low-income residential areas usually suffer relatively more from air pollution, so reductions in such pollutants may benefit those groups more than others.

Introducing or raising user fees

Raising user fees might require complementary policies to address equity concerns

User fees cover all individual payments to public service providers.[18] They are a potential revenue source, in particular at local levels of government, with beneficial effects on resource allocation, notably for infrastructure services. User fees can help contain excessive demand for public sector services, exclude free-riding and generate revenues for infrastructure investment. However, they can exclude low-income households from public sector services. Undesirable equity consequences would therefore need to be cushioned by complementary policies, such as fee reductions for low-income groups or means-tested income support, which would reduce budgetary gains and raise efficiency problems.

Privatisation

Privatisations require analysis of associated costs and benefits

Privatisation proceeds can be used to reduce general government gross debt levels. During the two decades or so prior to the crisis several countries engaged in significant privatisations. There is empirical evidence that divested firms often became more efficient and profitable and increased investment spending (Megginson and Netter, 2001). The evidence is mixed as to whether privatisations are associated with employment losses, although employment reductions seem to have been more frequent. On the other hand, cuts in employment appear to have been associated with efficiency improvements that supported the re-allocation of resources elsewhere. While privatisations can thus contribute to strengthening the growth potential of the economy, with associated beneficial effects on government budgets in the medium term, important reservations need to be made. First, enterprises in government ownership often operate in areas where there is market failure; privatising without addressing market failures by appropriate regulatory provisions would be counter-productive with respect to economic outcomes and might undermine acceptance by electorates. In this regard, sales justified merely by revenue needs that leave necessary regulatory changes unaddressed should be avoided. Second, with significant privatisations having already taken place, successful privatisations of public companies may be increasingly difficult to realise, though sales of governments' holdings of land and buildings could still yield substantial revenue. Third, the private sector may not yet be in a position to absorb large privatisations (including the sale of real estate) without significant discounts. These aspects reinforce the need for cost-benefit analyses of potential privatisations.

18. Government revenue from sales of goods and services vary by several percentage points across the OECD area. However, such data are only of limited value for international comparison of the extent to which user fees are employed since countries differ considerably in the degree to which certain services are provided within or outside the public sector.

Sale of assets acquired in response to the crisis can contribute to consolidation

Government assets acquired during the financial crisis through capital injections, purchase of assets and public lending can be sold to reduce gross debt. The value of assets acquired in such operations varies significantly across countries, from zero in Australia and Mexico to 5% of 2009 GDP or more in Germany, the United Kingdom and the United States (end of December 2009, see IMF, 2010a). Experience from past financial crises suggests that recovery rates for such assets tend to be around 50%, though estimated recovery rates on some recent operations are higher, such as some 70% for the US TARP (Congressional Budget Office, 2010b).

Structural reform

Structural reform can facilitate consolidation via various channels…

Structural reform in labour and product markets can raise potential output and facilitate consolidation *via* various channels on both the revenue and spending sides of general government budgets. More employment increases GDP and tax revenue and reduces unemployment benefits. Furthermore, to the extent the additional employment is in the private sector, the public-sector wage bill falls as a share of GDP. In addition, if non-wage public spending on things other than unemployment benefits does not increase with GDP, then the GDP share also falls. Assuming the higher employment increases GDP and tax revenue proportionally, stylised calculations using the OECD's regular elasticities for cyclical adjustments suggest that a 1 percentage point improvement in potential employment may improve government financial balances by between 0.3% and 0.8% of GDP, with the total effect largest in countries where the initial ratio of public to private sector employment and the initial proportion of primary public expenditure to GDP are highest (Figure 4.11).

… although budgetary effects could be limited by offsetting responses

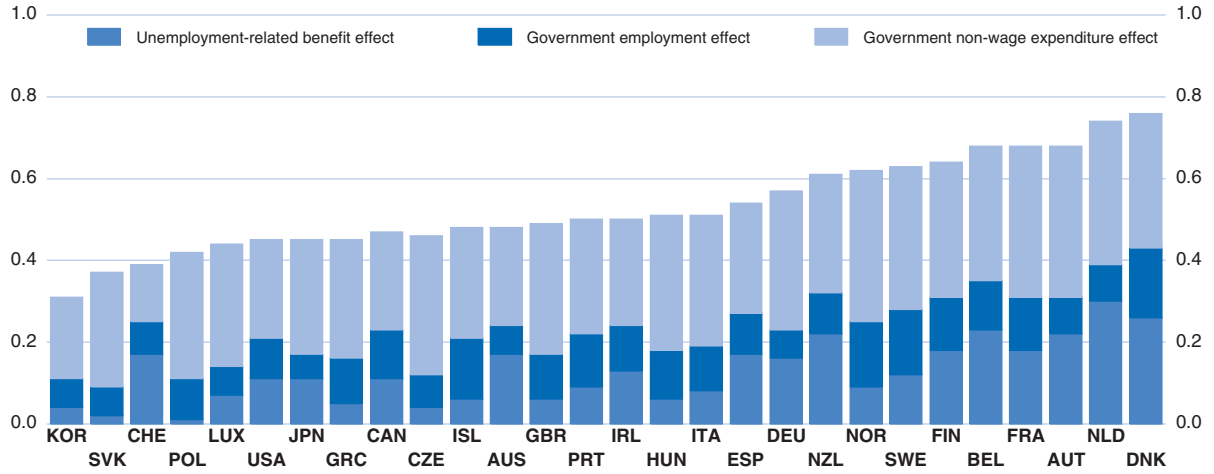
Recent OECD research indicates that aligning anti-competitive product market regulation to OECD best practice might raise productivity levels by as much as 2.5% in the typical OECD country, net of potential additional effects arising from higher private R&D spending and increased employment levels (Boulhol, de Serres and Molnar, 2008). However, an increase in productivity might have only muted effects on public finances. This is because productivity gains are likely to be reflected in higher wages in general, including wages in the public sector, and public transfers are likely to follow suit, with the increase in public spending offsetting to some extent the extra tax revenues resulting from higher output. However, even if direct budgetary effects are limited, structural reform may ease adjustments to consolidation.

Institutional settings that foster fiscal consolidation

A fiscal framework can support sustained consolidation

Empirical evidence suggests that very high debt and deficits encourage governments to consolidate (Guichard *et al.*, 2007; Box 4.3). However, experience also shows that the resolve to consolidate can fade quickly. A mutually reinforcing framework of fiscal rules, independent

Figure 4.11. **Effect of 1% higher potential employment on the primary balance**
Percentage of GDP



Note: The unemployment-related benefit effect arises as lower unemployment reduces benefit payments. The government employment effect and the government non-wage expenditure effect arise if the additional potential employment is entirely in the private sector and there is no multiplier effect on government employment and non-wage government expenditure, respectively.

Source: OECD Economic Outlook 88 database; and OECD calculations.

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fiscal agencies and budget procedures can contribute to returning public finances to sustainable positions and keeping them there.

Fiscal rules

Fiscal rules can take various forms

Fiscal rules can potentially help to keep consolidation efforts on track as the economy improves, revenue picks up and political enthusiasm for consolidation fades. At present, such rules must be tuned to current consolidation needs rather than to imposing fiscal discipline as would be appropriate in more "ordinary" times. As revenues start to improve in the current cyclical upturn, spending needs to be kept under control and tax reductions should be avoided. One option would therefore be to anchor consolidation efforts in a debt rule that specifies, first, a path leading to stabilisation of the debt-to-GDP ratio and, following stabilisation, a path of debt-to-GDP reductions.[19] This might be supplemented by budget rules that can help correct the tendency for slippages to occur and for pro-cyclicality which can lead to a ratchet effect in tax and spending. There are two broad categories of such rules: deficit rules that specify a limit for the annual budget deficit, and expenditure rules that limit discretionary increases or stipulate cuts in spending and in some cases limit revenue-losing changes in tax policy. Both types of rules have been used simultaneously, with positive effect as outlined in Box 4.3, implying an implicit rule for government revenues (Table 4.11).

19. Care needs to be exercised that manipulations on the asset side do not distort such a rule.

Table 4.11. **Fiscal rules applied in OECD countries**

		Characteristics of the set of rules			
		Budget target	Expenditure target	Rule to deal with revenue windfalls	Golden rule
Australia	Charter of Budget Honesty (1998)	yes	no	no	no
Austria	Stability and Growth Pact (1997) Domestic Stability Pact (2000)	yes	yes	no	no
Belgium	Stability and Growth Pact (1997) National budget rule (2000)	yes	yes	yes	no
Czech Republic	Stability and Growth Pact (2004) Law on budgetary rules (2004)	yes	yes	no	no
Denmark	Medium-term fiscal strategy (1998)	yes	yes	no	no
Finland	Stability and Growth Pact (1997) Multiyear spending limits (since 1991)	yes	yes	no	no
France	Stability and Growth Pact (1997) Central government expenditure ceiling (1998)	yes	yes	yes	no
Germany	Stability and Growth Pact (1997) Constitutional Rule (2009)	yes	yes	no	no
Greece	Stability and Growth Pact (1997)	yes	no	no	no
Hungary	Stability and Growth Pact (2004) Fiscal Responsibility law (2008)	yes	yes	no	no
Ireland	Stability and Growth Pact (1997)	yes	yes	no	no
Italy	Stability and Growth Pact (1997) Domestic Stability Pact (since 1999)	yes	no	no	no
Luxembourg	Stability and Growth Pact (1997) Coalition agreement on expenditure ceiling (since 1999)	yes	no	no	no
Mexico	Budget and fiscal responsibility law (2006)	yes	no	yes	no
Netherlands	Stability and Growth Pact (1997) Coalition agreement on multiyear expenditure targets (since 1994)	yes	yes	yes	no
New Zealand	Fiscal responsibility act (1994)	yes	yes	no	no
Norway	Fiscal Stability guidelines (2001)	yes	no	yes	no
Poland	Stability and Growth Pact (2004) Act on Public Finance (1999)	yes	no	no	no
Portugal	Stability and Growth Pact (1997)	yes	no	no	no
Slovak Republic	Stability and Growth Pact (2004)	yes	yes	yes	no
Spain	Stability and Growth Pact (1997) Fiscal Stability Law (since 2001)	yes	yes	no	no
Sweden	Fiscal Budget Act (since 1996)	yes	yes	no	no
Switzerland	Debt containment rule (2001, but in force since 2003)	yes	yes	yes	no
United Kingdom	Code for fiscal stability (1998); superseded by multi-year fiscal mandate	yes	no	no	no
United States	PAYGO rules (2010)	yes	no	no	no

Source: Based on Guichard *et al.* (2007), OECD.

StatLink http://dx.doi.org/10.1787/888932348301

Targeting deficits is made more difficult by the cycle

Simple deficit limit rules have the advantage of being easy to communicate. However, as budget outcomes are closely related to the economic cycle, deficit targets may be met as cyclical conditions improve without changes in underlying balances. This might be addressed by focusing on the cyclically-adjusted balance or a balance "over the cycle", but only at the expense of introducing a further dimension of uncertainty into the budgeting process, as these concepts are unobservable and need to be estimated.[20] All in all, given the current difficulty to assess the output gap, which is likely to last for a number of years, and the importance of having a non-manipulative rule, a simple deficit rule is probably more suitable to the current situation, possibly including sufficient flexibility to deal with the difficulty of forecasting the exact future growth rate.

Expenditure rules are less sensitive to the cycle…

Expenditure rules are less affected by the economic cycle. When revenues rise in an upturn, they will automatically be saved under an appropriately designed expenditure rule, which is not the case with a deficit limit rule (Anderson and Minarik, 2006). Well-designed expenditure rules also have the advantage that violations are relatively transparent and spending ministers can be held directly accountable for their actions (Atkinson and van den Noord, 2001; Guichard *et al.*, 2007; Price, 2010). Expenditure rules can, however, be subject to manipulation, as the frontier between higher spending and lower revenues is sometimes blurred.

… but are not without problems

Spending rules have been criticised for lowering the quality of public spending. This has led to the adoption of golden rules that specifically exclude investment spending from the cap on the grounds that there is a natural myopic bias towards cutting investment over current expenditure. This type of rule is, however, more difficult to monitor and easier to circumvent (Fatás, 2005). In practice, the distinction between current and investment spending is less than clear cut. Both the United Kingdom and Germany have abandoned golden rules. Moreover, all rules encourage "gimmickry", including one-off measures and creative accounting, to circumvent them (Koen and van den Noord, 2005). This problem might be more serious with an ambitious expenditure rule that will "bite" more often than a deficit rule, giving a stronger incentive to circumvent it. Part of the solution is to ensure that the expenditure rule has a wide ambit to include total expenditure (Price, 2010), applies to different levels of government and includes monitoring of tax expenditures (Anderson and Minarik, 2006). Within this framework, decisions on individual spending

20. For example, it has been difficult for the Swedish Fiscal Policy Council to assess compliance with the government's target of a 1% surplus over the cycle (Calmfors, 2010). Disputes concerning when the cycle started and finished was also one of the most contentious aspects of the rule that operated in the United Kingdom until the end of 2008 (OECD, 2009b).

categories should be made in line with considerations for efficiency and other government objectives.

Independent fiscal councils and better budgetary procedures

Independent fiscal councils can bolster commitment

An independent fiscal council (IFC) can be an important ingredient to strengthen governments' compliance with announced fiscal targets by raising the political cost of deviating from them. An IFC with a remit to examine fiscal sustainability may also help strengthen political commitment to consolidation and possibly also broaden such commitment across the political spectrum with associated gains in credibility. By improving the credibility and predictability of fiscal consolidation efforts an IFC can also help coordination with monetary policy. To be effective, an IFC needs to have a central role in the budget process (Debrun, Hauner and Kumar, 2009). Over-optimistic macroeconomic forecasts have been a principal culprit in past episodes of fiscal indiscipline, a practice that can be avoided *e.g.* if short-term fiscal projections are based on average economic projections from a survey of private-sector forecasters. The key roles for an independent budget agency would be to provide independent short-term and long-term economies and fiscal projections that the government could take as a given in its budget process. Likewise, identifying underlying and more ephemeral elements of the budget position is crucial.

There is increasing evidence and support for IFCs

Cross-country evidence suggests that there is a strong relationship between *de jure* influence of IFCs and their perceived effect on fiscal performance (Debrun and Kumar, 2008). There is also evidence that IFCs which provide normative judgments on fiscal policy decisions are more effective (Debrun, Hauner and Kumar, 2009). The political cost of ignoring purely advisory bodies is smaller than ignoring normative assessments and recommendations because these provide a benchmark against which to judge the government's policies. There is also empirical evidence that independent agencies more generally can help to improve equity and efficiency in fiscal decision making and reduce distortions arising from political incentives (Khemati, 2007) and improve fiscal discipline (Eichenberger and Schelker, 2007). Interest in setting up this type of agency is growing. The Swedish Fiscal Policy Council was established in August 2007. In May 2010, the United Kingdom decided to set up an independent agency, the Office of Budget Responsibility, to *inter alia* provide independent economic forecast assumptions that feed into the Budget process. More recently the ECB proposed creating an independent EU fiscal agency (ECB, 2010). Among the lessons from recent experiences is the need for IFCs to be appropriately resourced and to be set up institutionally so as to be truly independent of the government. Another lesson specific to the euro area is that the institutional framework for economic governance needs to be strengthened to avoid the kind of turbulence related to fiscal sustainability seen in the spring of this year (see Box 1.5 in Chapter 1).

Transparency and a top-down determination of spending helps consolidation

More generally, there is empirical evidence that transparent budgetary processes increase the likelihood of success of fiscal consolidation episodes (European Commission, 2007). The increasingly common practice of operating top-down spending ceilings together with managerial discretion in spending within those limits, can help in implementing expenditure targets while still allowing scope for discretion to achieve efficiency gains. Research also suggests that a process that puts the finance minister in a position to discipline spending ministers contributes to fiscal discipline (Hallerberg and von Hagen, 1999; von Hagen, 2002).

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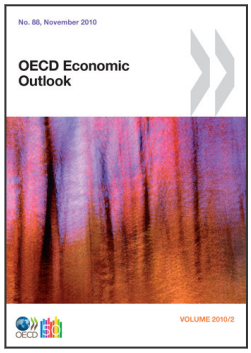

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