



IMF STAFF POSITION NOTE

September 1, 2010
SPN/10/13

Long-Term Trends in Public Finances in the G-7 Economies

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INTERNATIONAL MONETARY FUND

Fiscal Affairs Department

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September 1, 2010

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JEL Classification Numbers: E62, H11, H50, H62, H63

Keywords: Fiscal policy, public debt, size of government, fiscal consolidation, age-related spending, financial crisis

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¹ We would like to thank Raquel Gomez Sirera and Park Junhyung for excellent research assistance as well as Benedict J. Clements, Benjamin Jones, and Daehaeng Kim for their helpful inputs. An earlier version of this paper was presented at the LTIC conference on “The Long-Term Investments in the Age of Globalization” in Rome on June 17, 2010, and at a seminar in the IMF’s Fiscal Affairs Department. We are grateful for comments received on those occasions. The usual disclaimer applies.

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EXECUTIVE SUMMARY

Today's record public debt levels in most advanced economies are not only a direct fall-out from the global crisis. Public debt had ratcheted up over many decades before, when it had been used, in most of the G-7 countries, as the ultimate shock absorber—rising in bad times but not declining much in good times. Alongside, primary spending increased, particularly during 1965–85, reflecting predominantly a surge in health care and pension spending. Looking ahead, advanced economies will face the formidable challenge of reducing debt ratios at a time when ageing-related spending, in particular often underestimated pressures from health care systems, will put additional pressure on public finances. Addressing these fiscal challenges will require growth-friendly structural reforms, a fiscal strategy involving gradual but steady fiscal adjustment, stronger fiscal institutions, expenditure and revenue reforms, and an appropriate degree of burden sharing across all stakeholders.

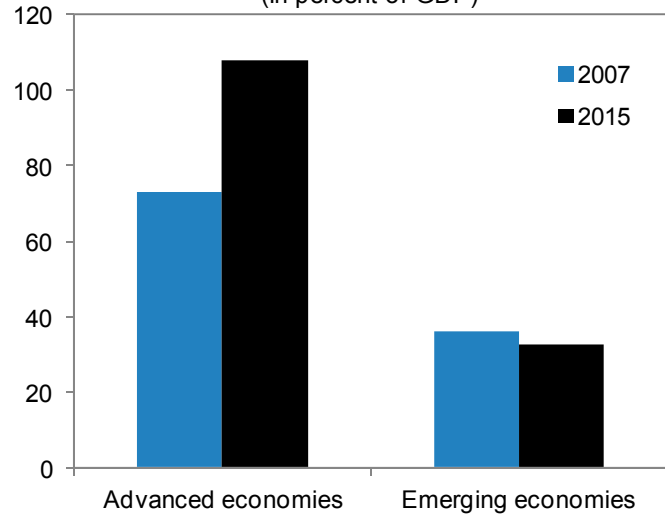
I. INTRODUCTION

In many advanced economies, public debt has reached in 2010 levels that had never been reached before in the absence of a major war. While this is a direct fall-out from the global crisis, debt levels had ratcheted up over many decades before. In most of the G-7 countries, they had been used as the ultimate shock absorber—rising in bad times but not declining significantly in good times. In other words, periods of fiscal tightening typically succeeded in reducing deficits but fell short of what was needed to reduce the accumulated debt stock.

This paper reviews how advanced economies arrived at today's crossroads (Section II) and provides policy options for tackling the fiscal consolidation needs (Section III).

The focus is on the G-7 economies rather than the G-20, which also includes the largest emerging economies and has become a key forum for discussing global economic policy issues. This is because the outlook for public debt ratios in advanced countries is much more worrisome and concerns of sustainability have come to the fore. In contrast, the public debt ratio of emerging economies, which has increased much less as a result of the crisis, is expected to stabilize already this year and resume a downward trend in 2011 (Figure 1, and IMF, 2010a).

Figure 1. Public Debt Outlook
(In percent of GDP)



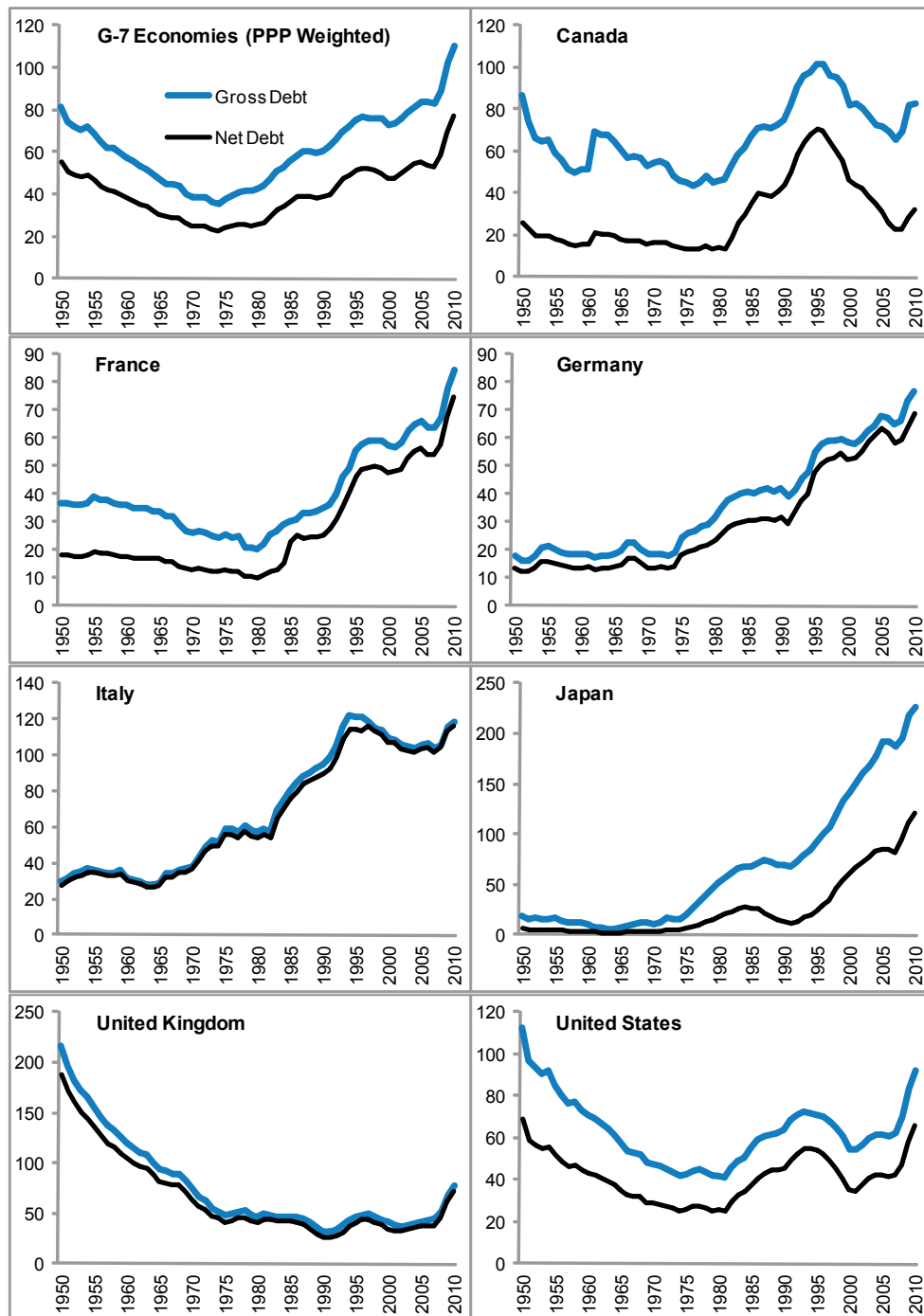
Source: IMF *World Economic Outlook* July 2010 Update.
Note: PPP-GDP weighted averages.

II. KEY TRENDS IN PUBLIC FINANCES

A. Public Debt Levels

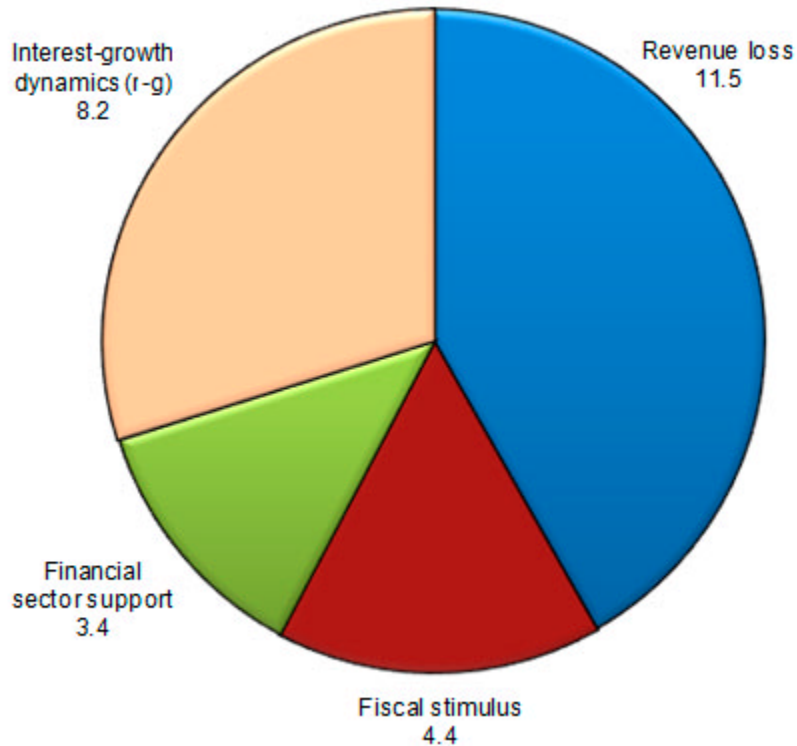
Public debt ratios have on average been on the rise in the G-7 countries for the past 35 years. Following World War II, the public debt burden in the average of the G-7 countries declined rapidly during the 1950s and 1960s, as strong growth helped lift its weight in the countries that had won the war (and public debt had already been eroded by inflation in the countries that lost it). In 1974, the trough was reached with an average gross public debt-to-GDP ratio of 35 percent. By 2007, ahead of the crisis, the average debt ratio had more than doubled to over 80 percent of GDP (Figure 2). Thus, G-7 countries entered the crisis with a historically high level of public debt. As a result of the crisis, and largely reflecting revenue losses as

Figure 2. Government Debt Ratios in G-7 Economies, 1950–2010
(In percent of GDP)



Sources: Data are drawn mainly from the IMF's World Economic Outlook database, supplemented by the following: Canada (1950–60) - Federal Gross Government Debt (Haver Analytics); France (1950–77) - National Debt (Goodhart, 2002); Germany (1950–75) - Credit Market Debt and Loans (Statistisches Bundesamt Deutschland); Italy (1950–78) - National Government Debt (Banca d'Italia); Japan - Central Government Debt (Ministry of Finance of Japan); United Kingdom (1950–79) - National Debt (Goodhart, 1999); United States - Gross Federal Debt (Office of Management and Budget; and U.S. Census Bureau). Note: G-7 average is weighted by PPP-GDP. Data refer to the general government. Some historical net debt data are estimated: Canada (1950–78), France (1950–82), Germany (1950–78), Italy (1950–87), Japan (1950–78), United Kingdom (1950–78), United States (1950–79).

Figure 3. Projected Increase in Public Debt Ratios in G-7 Economies, 2008–10
(In percent of GDP; 2009 PPP-GDP weighted average)



Sources: IMF *Fiscal Monitor* May 2010, IMF *World Economic Outlook* July 2010 Update, and IMF staff calculations and estimates.

Notes: The pie chart in the May 2010 *Fiscal Monitor* (p. 14) referring to 2008–15, included an additional slice (“policy lending”) which referred to non-deficit financing operations. These consisted, for example, of student loan and car loan programs in the United States. For the period up to 2010, however, these operations were not sizable.

well as the drop in output,² public debt is projected to rise to nearly 110 percent of GDP by end-2010 (Figure 3).

In the last three and a half decades, public debt has been the shock absorber in advanced economies—going up in bad times and not coming down in good times. The debt trajectory in France is a good example of this. During strong economic growth episodes in the late eighties and nineties, the debt ratio stabilized or declined slightly, but as soon as growth slowed debt continued its upward path fuelled by continued expenditure slippages. The biggest ratcheting up occurred during the economic downturn that started in 1991 and was aggravated by the 1992–93 crisis of the European Exchange Rate Mechanism. The necessitated surge in interest rates impacted not only growth but also debt service payments

² This has led to unfavorable interest rate–growth dynamics despite falling interest rates during 2008–10.

resulting in record deficits in 1993–94. Italy confronted the same shock while the United Kingdom’s recovery was facilitated by leaving the exchange rate mechanism. Its debt ratio remained relatively low until 2007, but, reflecting the recent crisis, it has increased significantly. In Germany, the debt path has also been closely linked to the economic cycle. Upward shifts occurred during the first and second oil price shocks as well as during the 1993 and 2003 recessions, in addition to the financing of reunification-related expenditures. Consolidation efforts helped to stabilize debt in the interim but not to reverse the trend. Japan’s debt ratio has ballooned since the asset price bubble burst in 1991 and the economy has been plagued by deflation and slow growth. The United States managed to temporarily reverse the upward debt trend during the strong growth years from the mid-nineties to 2000, but this reduction has been dwarfed by the surge in the debt ratio by nearly 40 percentage points since. Thus, the only exception to the upward debt trend among the G-7 countries is Canada. As a result of a major fiscal correction in the 1990s, Canada managed to lower its debt burden by over 35 percentage points.

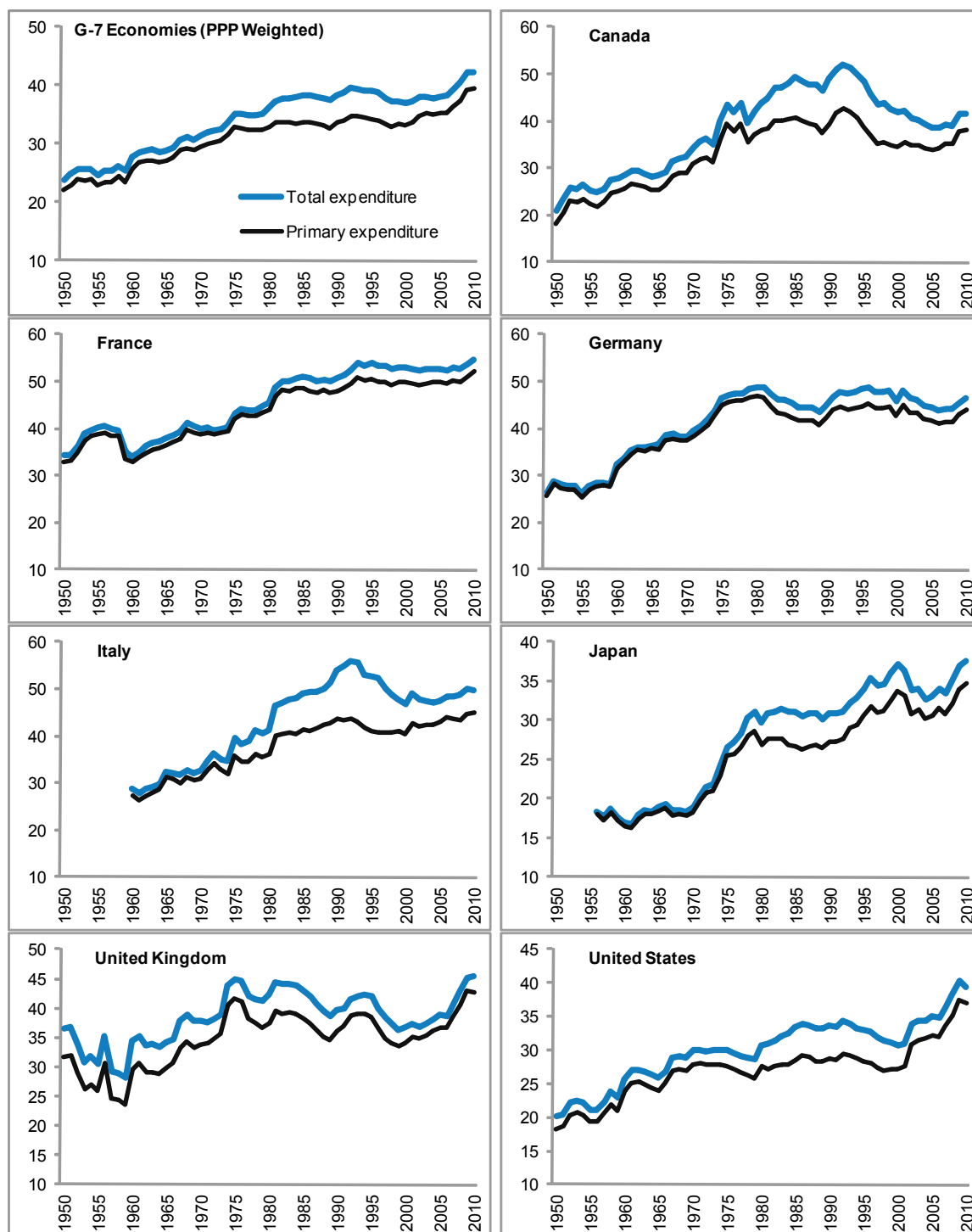
When governments’ holdings of assets are also considered, debt burdens are considerably lower in some countries. For the G-7 economies, net debt—measured as gross debt minus financial assets—is on average 30 percentage points lower than gross debt but has followed a similar trend over time as gross debt. Country differences are large, with Japan, Canada, and the United States being the largest holders of financial assets. During the financial crisis most G-7 economies increased these holding as a result of their financial sector support measures, but this increase was relatively contained with respect to the increase in gross debt (Figure 3).

B. The Size of Government: Public Expenditure

The second fiscal trend that characterizes the last decades is the increase in the size of government—measured by the ratio of spending to potential GDP. This is true for overall spending as well as primary spending—spending excluding interest payment. Most of the increase took place between 1965 and 1985, a trend which was present in all G-7 countries (Figure 4).

It is often argued that this increase reflects a change in the nature of the state: from a state providing “core functions” such as security services—defense, policy, justice—as well as large public works to a state that was providing a much wider range of social services (see e.g., Tanzi and Schuknecht, 2000; Tanzi, 2005 and 2008). This is correct but with one important caveat. The bulk of the increase in public spending (over 80 percent) is due to two items: health care and pensions (Figure 5). In particular, health care spending has surged in many G-7 countries. In the United States, it has accounted for more than two thirds of the increase in the primary spending ratio and more than half in Canada, Germany, and the United Kingdom. Other current spending items increased, partly using the space created by a decline in public investment (on average from 3 percent of potential GDP in 1960 to 2½ percent of potential GDP in 2007) and military spending, which dropped by some

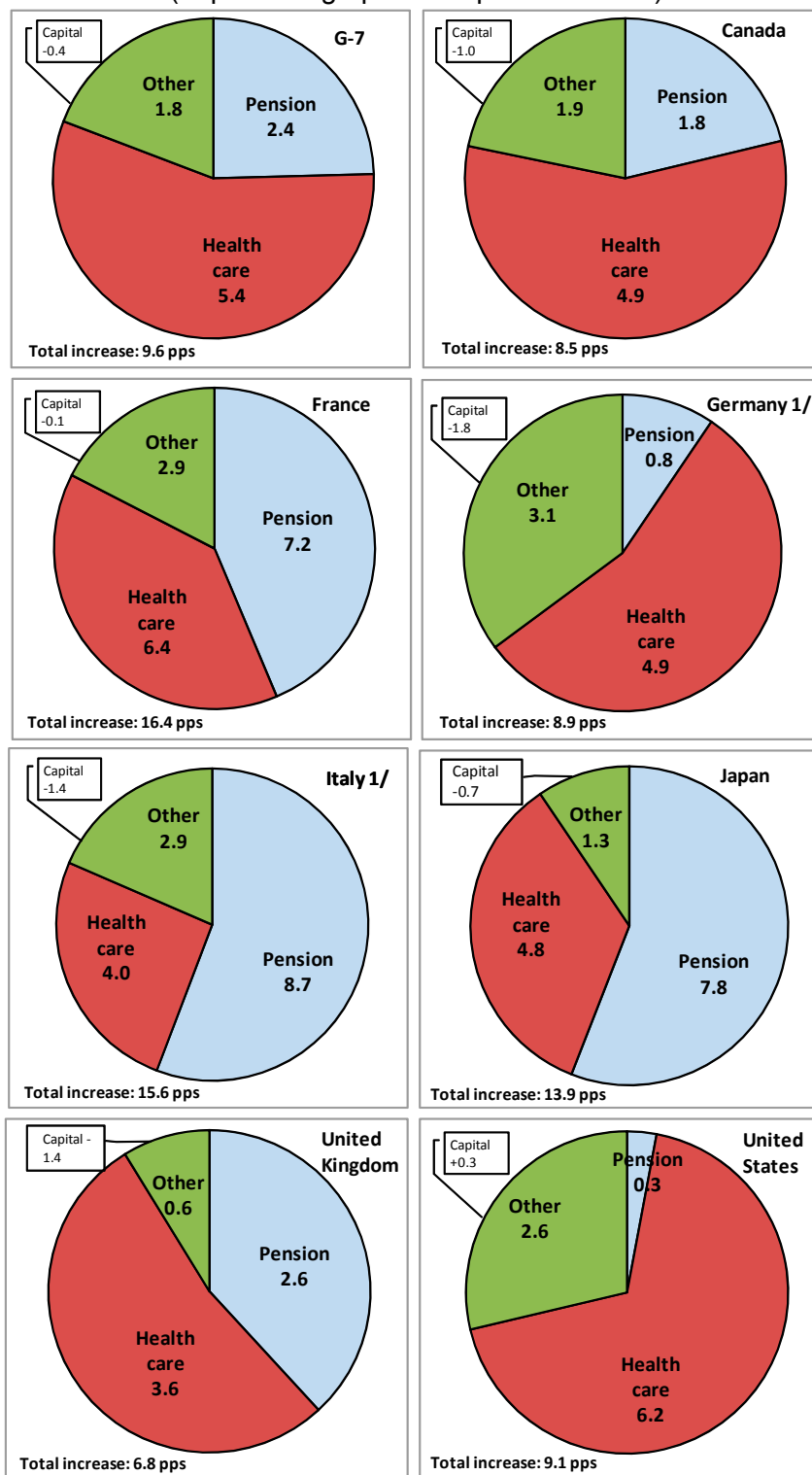
Figure 4. Government Expenditure in G-7 Economies, 1950–2010
(In percent of potential GDP)



Sources: Data are drawn mainly from the IMF's World Economic Outlook database, supplemented by the following: France (1950–1969) INSEE L'Etat de l'Economie; Germany (1950–59) Statistisches Bundesamt; Italy (1960–76) ISTAT and Banca d'Italia; United Kingdom (1950–59); and United States (1950–59) Bureau of Economic Analysis.

Note: G-7 average is weighted by PPP-GDP.

Figure 5. Change in the Composition of Primary Expenditure, 1960–2007
(In percentage points of potential GDP)



Sources: OECD, European Commission, United States Congressional Budget Office, Tanzi and Schuknecht (2000), IMF *World Economic Outlook*, and IMF staff estimates.

Notes: G-7 average is weighted by PPP-GDP.

1/ For Germany, estimated health care spending from 1960–69; for Italy, estimated health care spending from 1960–87.

3 percentage points of potential GDP between 1960–2007 on average for the G-7 countries.³ Nevertheless, it is clear that health and pension spending had the lion’s share of the increase in primary public spending.

C. Trends in Taxation

The revenue structure has also changed over time.⁴ The strongest increase in percentage points of GDP stems from social security contributions and personal income tax largely with a view to financing the expanding social entitlements (Table 1).⁵ At the same time, consumption taxes have been assigned a greater role—more than doubling their share as a percentage of GDP over the past four decades—which reflects in part more attention given to efficiency aspects of taxation as indirect taxes are considered to be less distortionary than direct taxes.⁶ Revenue from corporate income taxation (CIT) has remained rather flat over the long term, when measured in percent of GDP. This is despite sharp reductions in corporate tax rates in most advanced economies (Figure 6) as competition for increasingly mobile capital and profits intensified. The resilience of corporate income tax revenues reflects base broadening, as well as income shifting from the personal to corporate tax base and greater incentives to incorporate as a result of lower statutory rates (Norregaard and Khan, 2007). In pre-crisis years also the surge of profits, in particular in the financial sector, has supported CIT collection.

III. FUTURE CHALLENGES

A. The Impact of the Crisis on Public Finances

In all G-7 economies, public finances have deteriorated substantially due to the crisis. Overall fiscal balances have widened on average by more than 7 percentage points between 2007 and 2010 to about 9¼ percent of GDP. Part of this deterioration is cyclical, with the cyclically adjusted primary balance weakening by about 5 percentage points of GDP. The discretionary fiscal stimulus only accounts for 2 percentage points of GDP. Most of the remaining deterioration is due to the loss of potential GDP that is estimated to have been caused by the crisis (see IMF 2010a for more details). As a result, G-7 economies today face sizable primary gaps, even correcting for cyclical factors (Figure 7). In other words, large adjustments are needed simply to keep the debt-to-GDP ratio constant

³ Based on data from Tanzi and Schuknecht (2000) and IMF *Government Finance Statistics*.

⁴ For a detailed analysis of revenue trends of the last twenty years see Norregaard and Khan (2007). A longer term perspective and detailed data are provided in OECD (2009a). The European Commission (2010) focuses on revenue trends in EU member states from 1995–2009.

⁵ Over the past fifteen years, however, personal income tax rates, in particular the top rates, have come down significantly.

⁶ See Keen and Lockwood (2007) for an analysis of the spread of the VAT in the past decade across the world.

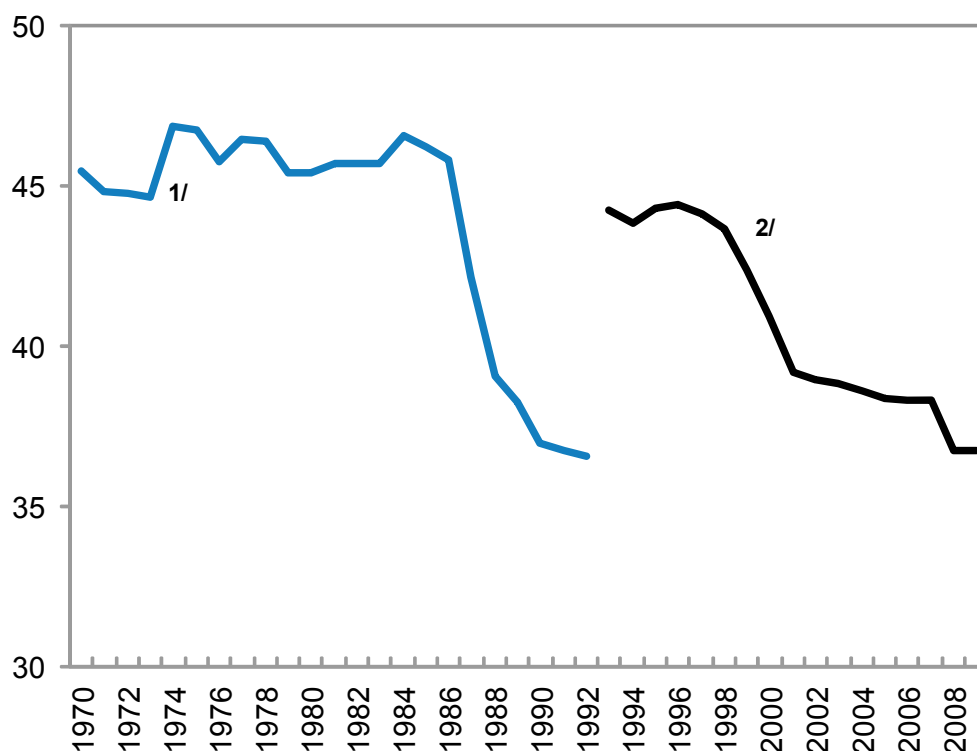
Table 1. Composition of Tax Revenue, 1965–2007
(In percent of GDP)

	1965	1975	1985	1995	2005	2007	Change 1965-2007
Canada	25.7	32.0	32.5	35.6	33.4	33.3	7.6
PIT	5.8	10.5	11.5	13.4	11.9	12.5	6.7
CIT	3.8	4.3	2.7	2.9	3.5	3.7	-0.1
Social security contributions	1.4	3.2	4.4	5.0	5.0	4.7	3.3
VAT and sales tax	4.6	4.0	4.3	5.0	5.0	4.5	0.0
Other	10.1	10.0	9.7	9.4	8.0	7.8	-2.2
France	34.1	35.4	42.8	43.2	44.0	43.8	9.7
PIT	3.6	3.7	4.9	4.9	7.9	7.6	4.0
CIT	1.8	1.8	1.9	2.1	2.4	2.9	1.1
Social security contributions	11.6	14.4	18.5	18.6	16.3	16.3	4.6
VAT and sales tax	7.9	8.2	8.4	7.4	7.3	7.2	-0.8
Other	9.1	7.3	9.0	10.3	10.1	9.9	0.8
Germany	31.6	34.3	36.1	37.2	34.8	36.2	4.6
PIT	8.2	10.3	10.3	10.2	8.1	9.2	1.0
CIT	2.5	1.5	2.2	1.0	1.7	2.1	-0.4
Social security contributions	8.5	11.7	13.2	14.5	13.9	13.2	4.8
VAT and sales tax	0.0	5.0	5.7	6.5	6.2	7.0	7.0
Other	12.5	5.8	4.6	5.0	4.8	4.6	-7.9
Italy	25.5	25.4	33.6	40.1	40.9	43.3	17.8
PIT	2.8	3.8	9.0	10.4	10.4	11.2	8.4
CIT	1.8	1.6	3.1	3.5	2.8	3.8	2.0
Social security contributions	8.7	11.6	11.7	12.6	12.6	13.1	4.4
VAT and sales tax	0.0	3.5	4.9	5.5	6.0	6.2	6.2
Other	12.3	4.8	5.0	8.0	9.1	9.0	-3.3
Japan	18.2	20.9	27.4	26.8	27.4	28.6	10.3
PIT	4.0	5.0	6.8	6.0	5.0	5.6	1.6
CIT	4.0	4.3	5.7	4.3	4.2	5.0	1.0
Social security contributions	4.0	6.1	8.3	9.0	10.1	10.2	6.2
VAT and sales tax	0.0	0.0	0.0	1.5	2.6	2.6	2.6
Other	6.3	5.5	6.6	6.1	5.4	5.2	-1.1
United Kingdom	30.4	35.2	37.6	34.5	36.3	36.6	6.2
PIT	10.1	14.1	9.8	10.0	10.6	10.9	0.9
CIT	1.3	2.2	4.7	2.8	3.4	3.5	2.1
Social security contributions	4.7	6.2	6.7	6.1	6.8	6.8	2.1
VAT and sales tax	1.8	3.1	6.0	6.6	6.8	6.7	4.9
Other	12.5	9.7	10.4	9.1	8.8	8.8	-3.8
United States	24.7	25.6	25.6	27.9	27.3	28.3	3.7
PIT	7.8	8.9	9.7	10.0	9.7	10.7	2.9
CIT	4.0	2.9	1.9	2.9	3.0	3.2	-0.8
Social security contributions	3.3	5.2	6.4	6.9	6.7	6.7	3.4
VAT and sales tax	1.2	1.8	2.0	2.2	2.2	2.2	1.0
Other	8.4	6.8	5.5	5.9	5.7	5.6	-2.8
G7-Average	26.3	27.8	30.2	31.6	31.1	32.1	5.8
PIT	6.1	7.0	8.0	8.1	8.3	9.0	2.8
CIT	3.2	2.7	2.8	2.8	3.0	3.4	0.2
Social security contributions	5.2	7.4	8.8	9.3	8.9	8.9	3.7
VAT and sales tax	1.6	2.8	3.2	3.6	3.7	3.8	2.2
Other	10.2	7.8	7.4	7.8	7.1	7.0	-3.2

Sources: OECD Revenue Statistics, IMF *World Economic Outlook*, and IMF staff estimates.

Note: G-7 average is weighted by PPP-GDP. CIT= Corporate income tax; PIT = Personal income tax; VAT = Value added tax.

Figure 6. Corporate Tax Rates in G-7 Economies, 1970–2009
(In percent)



Sources: The World Tax Database of the University of Michigan, and KPMG's Corporate and Indirect Tax Rate Survey 2007 and 2009.

Notes: G-7 average is weighted by PPP-GDP.

1/ Data from 1970–92 are from the University of Michigan World Tax Database. They refer to the top marginal tax rate on corporations applicable at the federal level on domestic companies. Additional taxes at the level of provincial and local governments are not included.

2/ Data from 1993–2009 are from the KPMG's 2007 and 2009 Corporate and Indirect Tax Rate Surveys. Corporate tax rates refer to the typical top marginal tax rate at the federal level including additional taxes at other levels of government. Given this wider definition, tax rates from the KPMG survey are higher than those used by the University of Michigan database. Both series, however, show the trend decline.

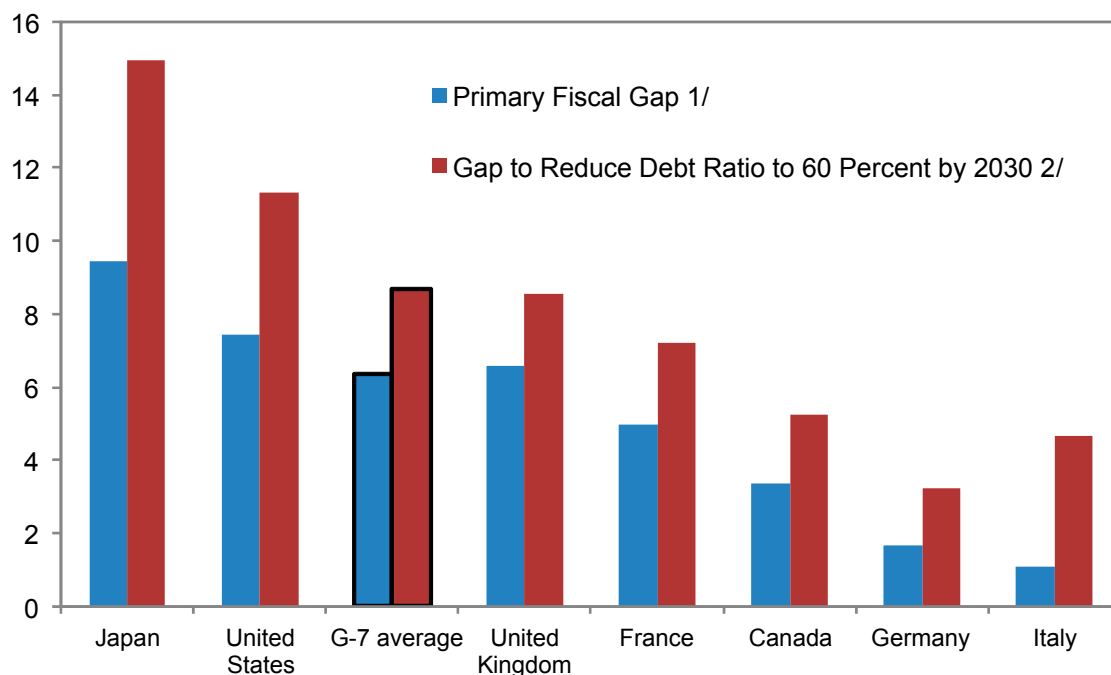
(some 6½ percentage points of GDP improvement in the cyclically adjusted primary balance). And an even larger adjustment is needed to lower public debt to below 60 percent of GDP by 2030 (about 8¾ percentage points of GDP).⁷

In the absence of fiscal adjustment, the high level of public debt would likely have adverse macroeconomic effects. New IMF analysis (see Baldacci and Kumar, 2010; Kumar and Woo, 2010) suggests that an increase of public debt by 40 percentage points, close to the IMF

⁷ Further details on this calculation can be found in IMF (2010a). The data presented here are, however, updated using inputs from the July 2010 *World Economic Outlook Update*.

projection for the change in gross public debt on average in the G-7 countries between 2007 and 2015, could raise real interest rates by almost 2 percentage points in the medium term and lower potential growth by over $\frac{1}{2}$ percentage point. Rising interest rates and declining growth are bad on their own, but they would also make fiscal adjustment even more difficult. An interest rate–growth differential that is one percentage point higher than in the baseline scenario would raise the fiscal adjustment need by about 1 percentage point of GDP.

Figure 7. Primary Fiscal Gap
(In percent of GDP)



Sources: IMF *Fiscal Monitor* May 2010, IMF *World Economic Outlook* July 2010 Update, and IMF staff calculations and estimates.

Note: G-7 average is weighted by PPP-GDP.

1/ The primary gap is the difference between the primary balance for 2011 that is needed to maintain the 2010 debt-to-GDP ratio and the cyclically adjusted primary balance (CAPB) in 2010.

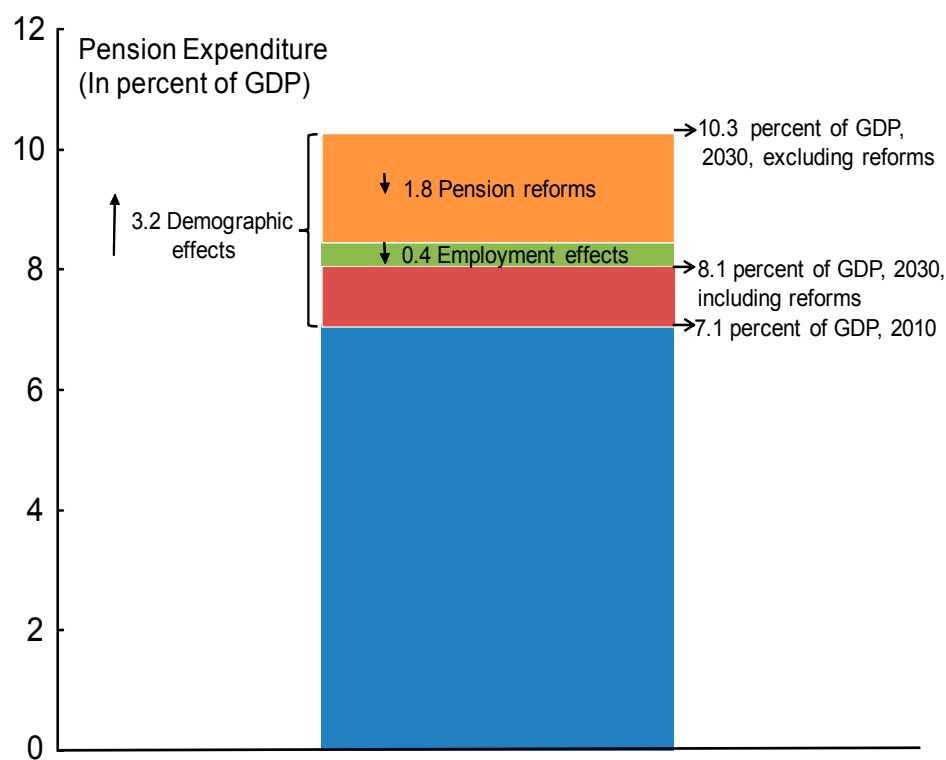
2/ The scenario assumes that the CAPB improves gradually from 2011 to 2020; thereafter, the CAPB is maintained constant until 2030. The CAPB path is set to reduce the debt-to-GDP ratio to 60 percent by 2030. For Japan, a gross debt target of 200 percent of GDP (net target of 80 percent of GDP) is assumed. The scenario uses country-specific interest rate–growth differentials. Until 2015, these are country-specific projections for the interest rates (computed as the implied interest rate from fiscal interest expenditures) and GDP growth rates. From 2016–30, country-specific differentials are determined as a function of the country's post-crisis (2015) indebtedness relative to the advanced country average. Specifically, a country with a post-crisis debt ratio that is higher by 10 percentage points than the average is assumed to have a higher interest rate–growth differential by 0.25 percentage point, and vice versa for countries with lower-than-average post-crisis indebtedness.

B. Long-Term Pressures from Ageing-Related Spending

Major additional pressures on public finances are arising from pension and health care spending (in short, “ageing-related” spending). This development is well known, but the nature of these pressures is often misunderstood. There has been a great deal of emphasis on pension spending, but much less on the rising trend in health care spending. This is a mistake. Health care reform will be the fiscal challenge of the twenty-first century.

What is the outlook for pension spending? Without reforms, pension spending would have increased from 7 to 10 percentage points of GDP in the next 20 years in the G-7 economies (Figure 8). However, important pension reforms have already been enacted. They will contain the increase to 1 percentage point. This is not trivial and further reforms will be needed, but the challenge seems to be manageable. For example, increasing the retirement age by a further two years over the next twenty years would be sufficient to stabilize pension spending.⁸

Figure 8. The Effect of Enacted Pension Reforms, 2010–30



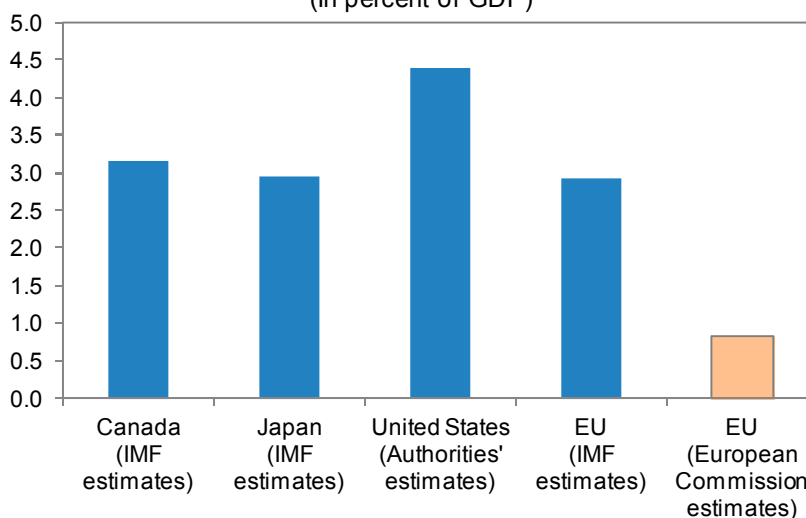
Sources: European Commission, OECD, United States Congressional Budget Office, and IMF staff estimates (IMF, 2010b).

Note: Sample includes advanced G-20 economies (weighted PPP-GDP average).

⁸ See IMF (2010b) for more details on pension projections for advanced and emerging economies and a discussion of reform options.

For health care spending, the outlook is much more challenging. Drawing on recent U.S. Congressional Budget Office projections of federal spending on Medicaid and Medicare, IMF staff estimate that general government spending on health will rise by 4½ percentage points of GDP over the next twenty years. For Canada and Japan, IMF staff project health care to rise by about 3 percentage points, respectively. In Europe, the increase projected in the *Ageing Report* by the European Commission (baseline projection) is much smaller—0.8 percentage point of GDP (Figure 9). Why is the difference so large? This is because of the different assumptions regarding the impact of non-demographic factors, including changes in the relative price of medical services. In fact, the EU baseline projections do not take such factors into account even though most of the trend increase in health care spending in the last fifty years was due to non-demographic components, including technological progress: better medical services have become available, but also more expensive ones. This has been a key driver of spending growth in both the United States and Europe.^{9, 10} If we project the trend to continue, the projected increase in health care spending in Europe rises to about 3 percentage points until 2030 (Figure 11). Altogether, in the G-7 economies, the key policy challenge over the coming decades will be to make health care systems sustainable by containing costs as well as creating fiscal space in other areas so as to adapt to societal preferences and needs for a greater share of ageing-related spending.

Figure 9. Projected Increase in Health Care Spending Until 2030
(In percent of GDP)



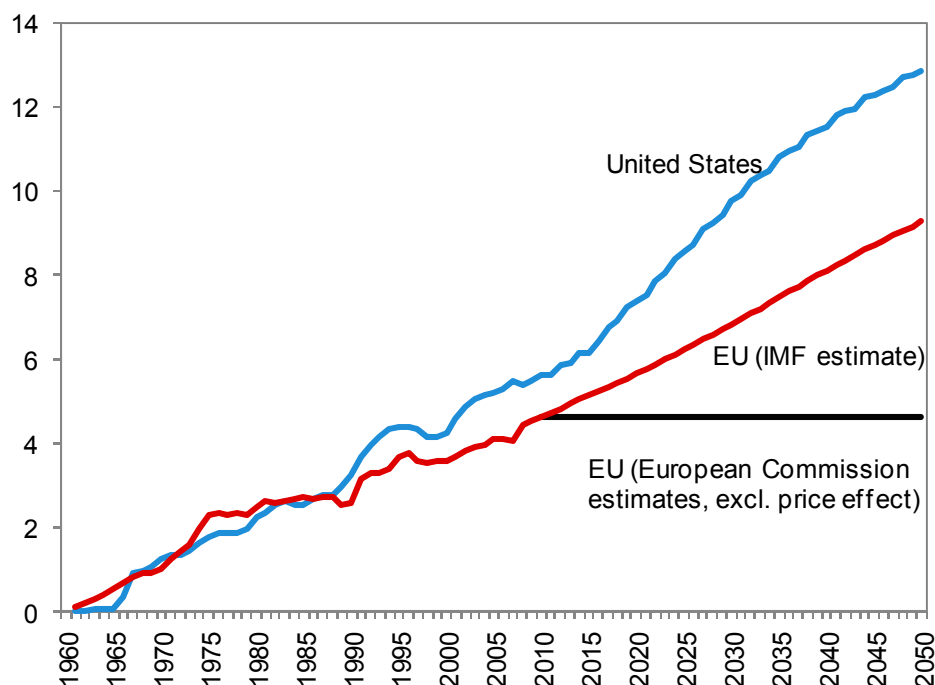
Sources: European Commission (2009), U.S. Congressional Budget Office, IMF (2010b), and IMF staff estimates.

Note: Estimates for the EU include the G-7 EU countries (France, Germany, Italy, and United Kingdom), weighted average by PPP-GDP.

⁹ Studies indicate that non-demographic factors—most notably technology, but also income growth and the expansion of insurance—explain the vast majority of spending increases in health (see e.g., OECD, 2006).

¹⁰ This is consistent with an alternative scenario included in an Annex of the European Commission's 2009 *Ageing Report*.

Figure 10. Cumulative Increase in Health Care Spending Due to Non-Demographic Factors
(In percent of GDP)



Sources: European Commission, OECD (2006, 2009b), U.S. Congressional Budget Office, IMF (2010b), and IMF staff estimates and calculations.

Note: Country-specific estimates for the share of non-demographic factors are used (backward-looking based on OECD, 2006 and forward-looking based on IMF, 2010b). Estimates for the EU include the G-4 EU countries (France, Germany, Italy, and United Kingdom). For Germany, estimated health care spending from 1960–69; for Italy, estimated health care spending from 1960–87.

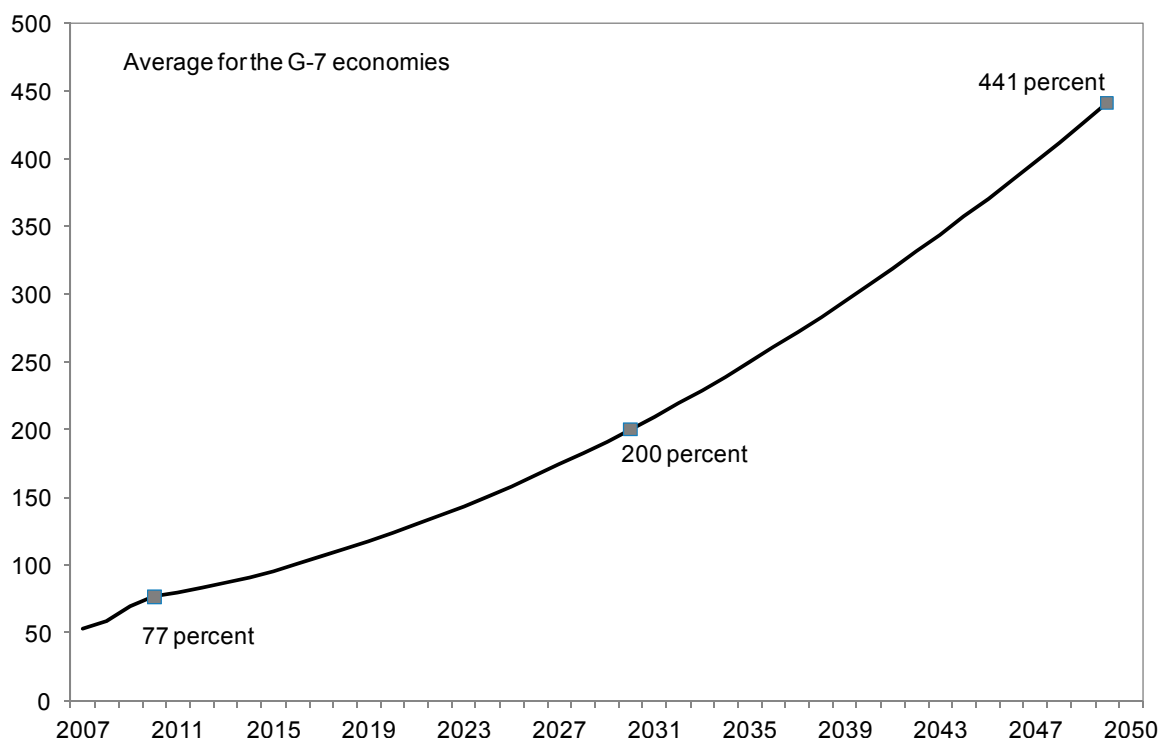
C. Risks of a Public Debt Spiral

Under the current and future pressures on public finances—large primary gaps and rising health care and pension spending—public debt would spiral out of control in the absence of fiscal adjustment. Under unchanged policies, the net debt-to-GDP ratio of the G-7 economies would reach 200 percent by 2030 and exceed 440 percent by 2050 (Figure 11).¹¹ This

¹¹ This scenario does not even take into account the impact on public finances arising from policies to address global warming. Few attempts have so far been made to quantify such fiscal effects. Preliminary estimates by the IMF's Fiscal Affairs Department put the additional fiscal costs of policies to reduce greenhouse gases over the next 10 years at ½ percentage point in advanced countries. These estimates, based on a number of policies but excluding low carbon fiscal stimulus measures, are at this stage still purely illustrative and could rise over the long term. For a discussion on how climate policies should be reflected in fiscal policies see Jones and Keen (2009).

scenario assumes that fiscal stimulus measures expire but otherwise the cyclically adjusted primary balance remains constant at the 2010 level (in percent of GDP). The surge in debt in this scenario, however, does not even take into account the possible negative feedback effects that higher debt could have on interest rates and economic growth.

Figure 11. General Government Net Debt Scenario Under 2010 Policies
(In percent of GDP)



Sources: IMF *World Economic Outlook* July 2010 Update, and IMF staff calculations and estimates.

Note: Weighted average by PPP-GDP. The debt scenario assumes that the cyclically adjusted primary balance, corrected for fiscal stimulus measures, remains constant at the 2010 level (in percent of GDP). Nominal GDP is assumed to grow by 3 percent per year. The interest rate–growth differential ($r-g$) is assumed to equal zero until 2014 and 1 percentage point afterwards. Moreover, the scenario accounts for the estimated increase in ageing-related spending.

IV. RESPONDING TO THE CHALLENGES: KEY PRINCIPLES

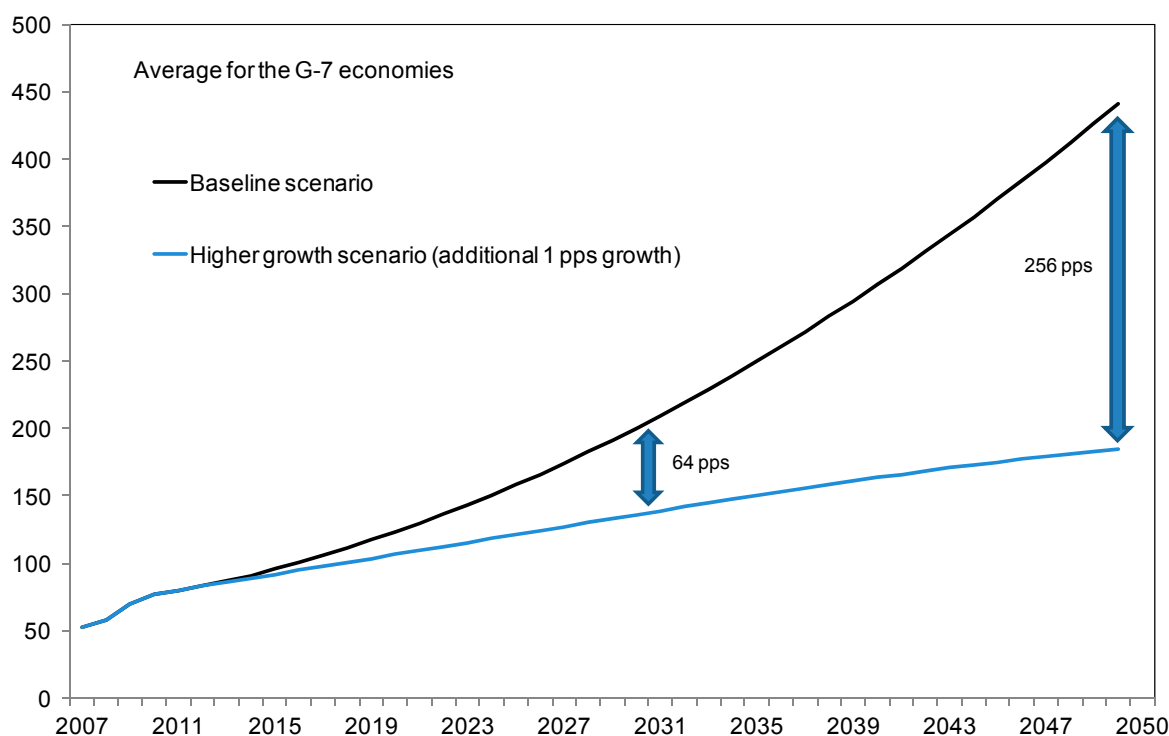
Decisive action is needed to turn deteriorating public finances around without hampering near-term growth prospects. Markets have recently shown increased concern for fiscal vulnerabilities in advanced countries. Such concerns undermine confidence and threaten the economic recovery. Here are some features of fiscal strategies that are consistent with both short and long-term requirements.¹²

¹² See also Blanchard and Cottarelli (2010).

Growth-friendly structural reforms

A key lesson from economic history is that fiscal consolidation is much easier in a context of high growth. Thus, implementing structural reforms that boost potential growth is key to ensuring debt sustainability. In a scenario in which potential growth was raised by 1 percentage point compared to the baseline debt projections from Figure 11, and even assuming that half of the increased revenues is spent, the debt path would dramatically change (Figure 12). Assuming a revenue-to-GDP ratio of 35 percent (the 2010 G-7 average), net debt would be lower by more than 60 percentage points of GDP by 2030. Achieving higher potential growth will require reforms in product markets, labor markets, financial markets, and the public sector. Immigration policies will also be critical in the context of low population growth. But to count entirely on expectations of higher growth cannot be a credible strategy, as the timing and magnitude of the effects of structural reforms on growth are highly uncertain.

Figure 12. General Government Net Debt Scenario Under Alternative Scenarios
(In percent of GDP)



Source: IMF *World Economic Outlook* July 2010 Update, IMF staff calculations and estimates.

Note: Weighted average by PPP-GDP. See note to Figure 11 for the baseline scenario. The higher growth scenario assumes nominal GDP growth of 4 percent (3 percent in the baseline) and that half of the increase in nominal revenue due to higher growth is saved, thus improving the primary balance. The revenue-to-GDP ratio is assumed to be 35 percent of GDP.

Clear medium-term orientation

That is why clearly defined fiscal actions with a medium-term orientation are needed. They should be clearly defined because markets need to be reassured that there is a plan; and there should be a medium-term orientation because debt reduction will require efforts over many years to come. All G-7 economies have announced adjustment plans. These imply at present, an adjustment of 1 percent of GDP in 2011, net of cyclical factors. This size of adjustment is a broadly appropriate “down payment”, striking a balance between sustainability concerns without impinging on the currently projected economic recovery. Over the medium term, national consolidation plans are even somewhat more ambitious than commitments by the advanced G-20 economies under the Toronto declaration¹³ which foresees halving overall deficits by 2013. Specific measures, however, still need to be spelled out in many countries so as to enhance the credibility of these plans.

Stronger fiscal institutions

Third, to support the medium-term adjustment, stronger fiscal institutions are needed. The current institutions are those that allowed a ratcheting up of debt before the crisis. The problem is not how fiscal policy was managed during the crisis; it is how it was mismanaged before the crisis. Distorted incentives in policymaking, mostly governments’ shortsightedness and the role of special interest groups, have resulted in a deficit bias for most G-7 economies (see e.g. Debrun, Hauner, and Kumar, 2007). There is a need for better fiscal rules (including in the European Union), better budgetary processes (including in the United States), and better fiscal monitoring (including by independent fiscal agents, as the United Kingdom has recently recognized). In several countries, a reform process in this direction has already started. Among the G-7 economies, this includes the adoption of a constitutional structural budget balance rule in Germany, the inception of the Office for Budget Responsibility in the United Kingdom, the ongoing preparations for adopting a fiscal rule in France, Japan’s recent announcement of a medium-term fiscal framework, including a pay-as-you-go rule, and the United States’ adoption of the Statutory Pay-As-You-Go-Act of 2010 as well as the setting up of a fiscal commission tasked with developing options to reach primary balance by 2015.¹⁴

Expenditure and revenue reforms

Fourth, consolidation should focus on using those tools that are conducive to strong potential growth. With public spending already high in the G-7 economies, and major spending increases projected in health care and pension, the adjustment will be primarily on the

¹³ See “The G-20 Toronto Summit Declaration” (June 26–27, 2010) (http://www.g20.org/Documents/g20_declaration_en.pdf).

¹⁴ For a detailed review of the international experiences with fiscal rules and a discussion of design features see IMF (2010c).

spending side.¹⁵ This said, particularly in countries where the tax ratio is relatively low, and the fiscal challenges are more daunting, like the United States and Japan, it will be nearly impossible to avoid some action also on the revenue side. On the expenditure side, a target of freezing non-age-related spending in real per capita terms could create savings of 3–3½ percent of GDP within ten years. This goal could be achieved through moderation in public wage increases, where wages increased sharply in the past, reforms to subsidies, and more targeted social transfers. Ageing-related spending pressures need to be curtailed through entitlement reforms. Policy options on the revenue side include improving the performance of VAT, by eliminating exemptions and reduced rates, reducing other tax expenditure, raising tobacco and alcohol excises in all G-7 countries to the G-7 average, and increasing property taxes in European countries to the level in other G-7 countries.¹⁶ For the United States, which does not have a VAT, and Japan, which has a VAT with a low 5 percent rate, introducing a VAT and raising the rate, respectively, could become a significant source of additional revenue.

Equitable adjustment

Fifth, any adjustment strategy will have to be equitable. This includes ensuring intergenerational equity and an adequate social safety net and provision of public services that allow a level playing field, regardless of conditions at birth. Moreover, an equitable adjustment will require a more energetic fight against tax evasion and erosion,¹⁷ both nationally and internationally. The recent initiatives undertaken to fight tax havens are an important development in this respect. But more coordination is needed among tax administrations of various countries and among tax policies, in a globalized economy. Maybe it is time to revive the idea of a World Tax Organization to address these coordination issues.¹⁸

¹⁵ Numerous studies have found a negative association between the size of government and economic growth in advanced economies. While reversed causality remains an issue that has not always been fully captured in the analyses and the size of government may also have a positive stabilization effect in the short run in times of demand shocks, there appears to be a threshold level at which distortions that typically go along with larger government sizes, impinge on the growth potential (see for an overview of the literature Barrios and Schaechter, 2008).

¹⁶ See IMF (2010b) for a detailed discussion of these options on both the expenditure and revenue side.

¹⁷ This includes also VAT evasion which is estimated to cost advanced economies about 0.7 percent of GDP, or about 15 percent of VAT revenue. Evasion for many other taxes is likely to be higher, as VAT is a tax that is relatively more difficult to evade.

¹⁸ For example, Tanzi (1999) discussed the role of a World Tax Organization in light of the impact that globalization has on revenue collection.

V. CONCLUSIONS

The financial crisis has the potential of changing fiscal policy-making for decades to come. It will leave most advanced economies with record debt levels coming on the heels of a gradual debt and public expenditure build-up since the mid-1960s and faced with new expenditure pressures, in particular for health care and pension spending. To ensure fiscal sustainability and regain room for fiscal maneuver, in particular to respond to possible future negative fiscal shocks (e.g., to mitigate risks stemming from private sector weakness), fiscal adjustment is crucial.

Applying the proposed key principles for fiscal adjustment will not be easy, however. They require striking the right balance between competing needs. There should be fiscal adjustment, but it cannot be too abrupt. There should be a downsizing of government, but without preventing it from playing a key role in the provision of basic services, and in particular in maintaining a level playing field by giving equal opportunities to all individuals regardless of their conditions at birth.

Less nuanced messages are easier to grasp but can be misleading. What is needed in these challenging times for fiscal policy is a steady hand, not erratic changes, a steady hand to sustain the adjustment over time and reverse the long-term fiscal trends that are currently not sustainable. The current environment of low interest rates, which has so far kept debt service payments under control in G-7 economies despite surging deficits and debt levels, provides a window of opportunity to set the adjustment process in motion. Once interest rates start to rise, the adjustment will become even more challenging.

VI. REFERENCES

Baldacci, E., and M.S. Kumar, 2010, “Fiscal Deficits, Debt, and Interest Rates,” IMF Working Paper 10/184 (Washington: International Monetary Fund).

Barrios, S., and A. Schaechter, 2008, “The Quality of Public Finances and Economic Growth,” *European Economy Economic Paper* 337 (Brussels: European Commission).

Blanchard, O., and C. Cottarelli, 2010, “Ten Commandments for Fiscal Adjustment in Advanced Economies,” iMFdirect (<http://blog-imfdirect.imf.org/2010/06/24/ten-commandments-for-fiscal-adjustment-in-advanced-economies/>).

Debrun, X., D. Hauner, and M.S. Kumar, 2007, “Discretion, Institutions, and Fiscal Discipline,” in *Promoting Fiscal Discipline*, ed. by M.S. Kumar and T. Ter-Minassian (Washington: International Monetary Fund).

European Commission, 2009, *The 2009 Ageing Report: Economic and Budgetary Projections for the EU-27 Members States* (Brussels).

_____, 2010, *Taxation Trends in the European Union. 2010 Edition* (Brussels).

IMF, 2010a, *Fiscal Monitor: Navigating the Fiscal Challenges Ahead* (Washington: International Monetary Fund), May.

_____, 2010b, “From Stimulus to Consolidation: Revenue and Expenditure Policies in Advanced and Emerging Economies,” Staff Paper (Washington), April.

_____, 2010c, “Fiscal Rules—Anchoring Expectations for Sustainable Public Finances,” Staff Paper (Washington), January.

_____, 2010d, “A Fair and Substantial Contribution by the Financial Sector,” Final Report for the G-20 (Washington), June (<http://www.imf.org/external/np/g20/pdf/062710b.pdf>).

Jones, B., and M. Keen, 2009, “Climate Policy and the Recovery,” IMF Staff Position Note 09/28 (Washington: International Monetary Fund).

Keen, M., and B. Lockwood, 2007, “The Value-Added Tax: Its Causes and Consequences,” IMF Working Paper 07/183, (Washington: International Monetary Fund).

Kumar, M.S., and J. Woo, 2010, “Public Debt and Economic Growth,” IMF Working Paper 10/174 (Washington: International Monetary Fund).

Norregaard, J., and T.S. Khan, 2007, “Tax Policy: Recent Trends and Coming Challenges,” IMF Working Paper 07/274 (Washington: International Monetary Fund).

OECD, 2006, “Projecting OECD Health and Long-Term Care Expenditures: What Are the Main Drivers?” OECD Economics Department Working Paper 477 (Paris: Organisation for Economic Co-Operation and Development).

_____, 2009a, *Revenue Statistics 1965–2008*, 2009 Edition (Paris: Organisation for Economic Co-Operation and Development).

_____, 2009b, *Health Database* (Paris: Organisation for Economic Co-Operation and Development).

Tanzi, V., 1999, “Is There a Need for a World Tax Organization?” in *The Economics of Globalization: Policy Perspectives From Public Economics*, ed. by A. Razin and E. Sadka, 173 (New York: Cambridge University Press).

_____, 2000, “The Role of the State and Public Finance in the Next Generation,” *OECD Journal of Budgeting*, Vol. 8, No. 2, pp. 1–27.

_____, 2005, “The Economic Role of the State in the 21st Century,” *Cato Journal*, Vol. 25 (Fall), pp. 617–38.

_____, 2008, “The Role of the State and Public Finance in the Next Generation,” *OECD Journal of Budgeting*, Vol. 8, No. 2, pp. 1–27.

_____, and L. Schuknecht, 2000, *Public Spending in the 20th Century: A Global Perspective* (Cambridge: Cambridge University Press).