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The Political Economy of Fiscal Consolidation

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THE POLITICAL ECONOMY OF FISCAL CONSOLIDATION

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ABSTRACT/RESUMÉ

The political economy of fiscal consolidation

This paper explores the political economy of fiscal adjustment. It begins with an examination of the evidence for, and sources of, 'deficit bias', including political and governance factors, public attitudes, the role of financial markets and imprecision about which debt targets should be pursued. It then examines the evidence regarding the exogenous and policy-related factors which affect the success of fiscal consolidation efforts. This is followed by a discussion of the role of fiscal institutions, including fiscal rules and autonomous agencies. The final section considers how the political economy of fiscal policy has changed with the financial crisis, giving some indications as to what may be needed to re-establish a consolidation path and make it less prone to setbacks.

JEL codes: E62; E65; H30; H60; H61; H62; H63.

Keywords: fiscal policy; debt; deficit; fiscal sustainability; fiscal consolidation; budget; taxation; public expenditure; political economy; institutions.

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L'économie politique de l'ajustement budgétaire

Ce document explore l'économie politique de l'ajustement budgétaire. Il commence par examiner l'existence et les sources d'un biais en faveur des déficits. Parmi ces sources on peut citer les facteurs de politique économique et de gouvernance, les attitudes de la population, le rôle des marchés financiers et le manque de précision concernant les cibles de dette à atteindre. Il s'intéresse ensuite aux facteurs exogènes ou liés à l'action des pouvoirs publics qui affectent le succès des efforts d'assainissement des finances publiques. Enfin le rôle des institutions budgétaires est abordé, y compris celui des règles budgétaires et des agences autonomes. La dernière section s'interroge sur la façon dont la crise financière a modifié l'économie politique de la politique budgétaire en donnant quelques pistes sur ce qui pourrait s'avérer nécessaire pour rétablir une trajectoire de consolidation et la rendre moins vulnérable aux rechutes.

Codes JEL : E62 ; E65 ; H30 ; H60 ; H61 ; H62 ; H63.

Mots clés : Politique budgétaire ; dette ; déficit ; soutenabilité des finances publiques ; consolidation budgétaire ; finances publiques ; imposition ; dépenses publiques ; économie politique ; institutions.

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Introduction

1. This paper discusses the political economy factors which have created problems of fiscal sustainability in OECD economies and those which may have prevented or propitiated fiscal consolidation. At its broadest, and most normative, fiscal consolidation may be defined as a political process aimed at achieving a sustainable fiscal balance, where sustainability means the issuing of debt to finance government expenditure only to the extent that it creates a future debt burden that does not interfere with the attainment of macro-economic objectives: excessive government borrowing can be inflationary, economically destabilising, allocationally distorting and generationally arbitrary in its impact. At its narrowest it means running a budget balance which stabilises government deficits and debt at some pre-specified levels. After decades of application, the results of consolidation policies have been irregular, uneven across countries and ultimately subject to a severe setback, due to the financial crisis. The 1990s were characterised by significant fiscal adjustments, following a period from the mid-1970s when many OECD economies saw a run up in debt, sometimes to very high levels (Figure 1). However, there remained substantial divergences among OECD economies in terms of the degree of consolidation achieved. And the gains that have been made have not proved permanent: following the recession, the average OECD budget deficit is expected to reach 9% of GDP in 2010, when the average debt/GDP ratio will be 100% - a post-War historical record. This means that the consolidation process will need to begin anew and success will depend on the lessons learned and not repeating the mistakes made.

2. The structure of the paper is as follows. It first examines the factors conditioning the propensity for governments to take on debt: political and governance factors, public attitudes to debt, the role of financial markets and the general imprecision about what debt targets should be pursued. In the second section, the paper examines the evidence, based largely on pooled regressions over large country samples, regarding the exogenous and policy-related factors which have propitiated fiscal consolidation. The third section examines the role of fiscal institutions: rules and autonomous agencies in fiscal retrenchment. The final section sums up and assesses how the political economy context has changed with the financial crisis, giving some pointers as to what may be needed to re-establish a consolidation path and make it less prone to setbacks.

1. The author is grateful to Jørgen Elmeskov, Jean-Luc Schneider, William Tompson and Giuseppe Nicoletti for useful comments and suggestions on an earlier draft of this chapter, to ex-colleagues, Boris Cournede, Luiz de Mello, Stephanie Guichard, Isabelle Joumard, Mike Kennedy, Vincent Koen, Douglas Sutherland, Paul van den Noord and Eckhardt Wurzel, for stimulating contributions to the ideas expressed in it, and to Susan Gascard and Irene Sinha for assistance in its preparation.

I. Policy framework: fiscal governance, public attitudes and financial discipline

3. Making reform happen in the area of fiscal consolidation involves dealing with the interests and incentive structures of policymakers in addition to those of economic agents that are directly affected by consolidation measures, where sectional vested interests, the protection of economic rents and acquired rights dominate the defence of the *status quo*. For instance, with respect to government debt issuance, governments can reap a potential electoral advantage over their opponents by raising and spending money against future tax income. On the control side, the principal actors and interests include central banks and financial markets, which have an interest in preventing inflation and protecting the property rights of money and bond holders in general, but which have not always exercised effective oversight over government borrowing. As underwriters of government indebtedness the general public play an ambivalent role: they have to service government debt via taxation, but the benefits of borrowing may accrue to different groups of voters (both within and across generations) from those that pay.

Political opportunism can create deficit bias

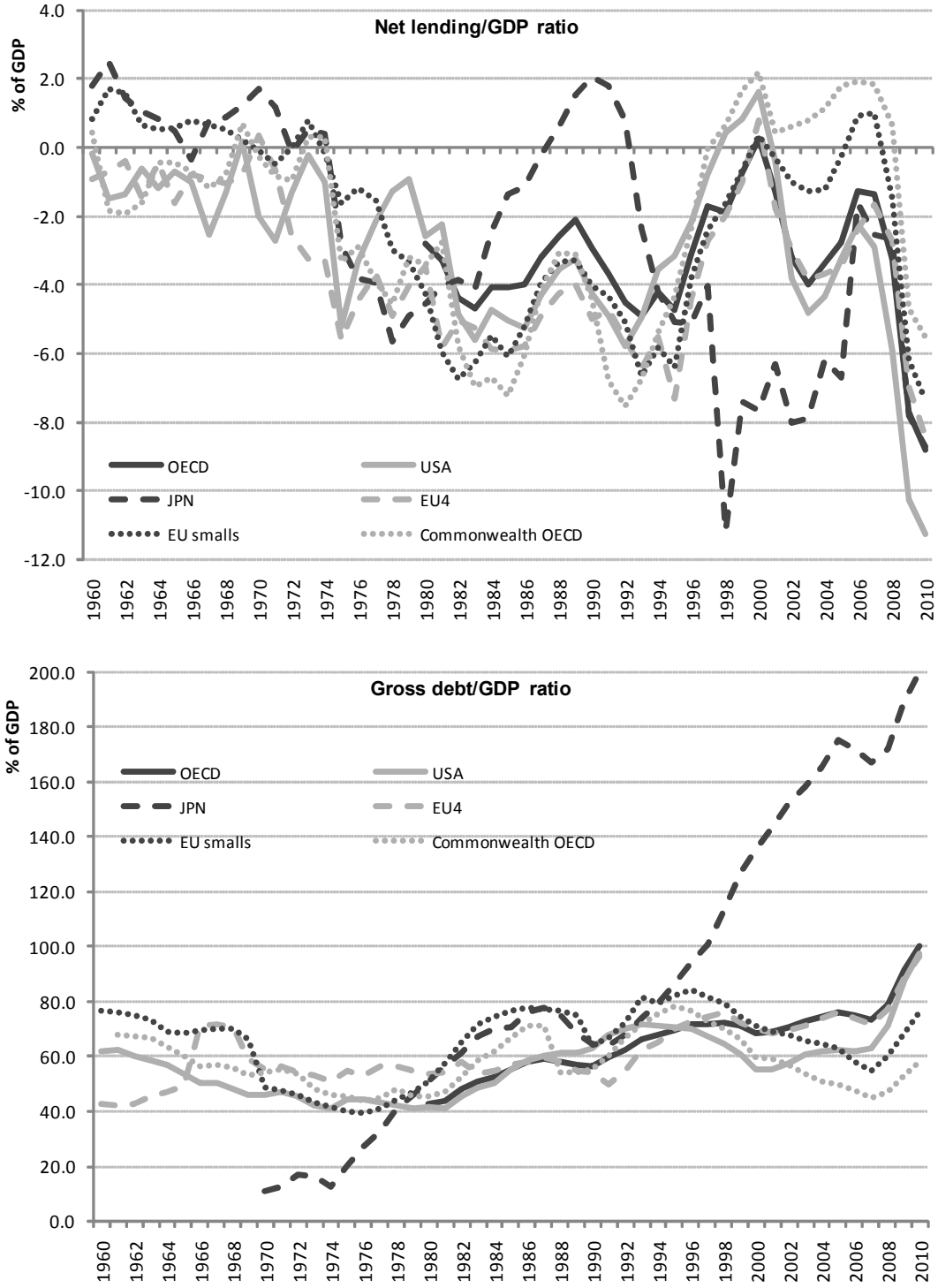
Counter-cyclical policies may be easier in downturns…

4. Against the background of changing attitudes to the macro-economic usefulness of deficits, the public choice literature[2] identifies an endemic bias towards deficit finance because governments can provide the electorate with benefits that do not have to be immediately paid for. Provided voters value public expenditure and consistently underestimate its costs in terms of higher future taxes, politicians can indulge in opportunistic deficit-financed public spending increases and tax cuts prior to elections, inducing a political business cycle (PBC) (Nordhaus, 1975). PBC models have come up with mixed empirical results and the hypothesis is often contradicted empirically. But of most interest from the viewpoint of debt accumulation is the possibility that fiscal expansions and contractions are asymmetric, both because the deficit expansion is not offset by an equivalent consolidation and/or because expenditure instruments are favoured for expanding demand and tax instruments for reducing it. This would be consistent with a tendency for deficits to be used to enable the public sector to expand (Buchanan and Wagner, 1977).

5. It would be too simplistic to view the cyclical behaviour of OECD economies as being conditioned by political opportunism, but there is evidence of responses to cyclical shocks being affected by electoral factors. Testing for the presence of symmetry in the conduct of fiscal policy over the cycle in a sample of 16 OECD countries Balassone and Francese (2004) find evidence that fiscal policy does tend to react asymmetrically to cyclical conditions, as a downturn is usually accompanied by a deterioration of the budget balance while an upturn does not entail an equivalent improvement of the balance. Sometimes governments need to take action to cut budget deficits in downturns, which is electorally difficult: country experiences differ significantly, and there is cross-section evidence that consolidation does tend to be more prevalent just after election years (OECD, 2003). This may reflect the fact that the benefits of fiscal retrenchment, as of a reformist agenda in general, take some time to come through.

2. This political economy literature has a long lineage, going back to Ricardo. Alesina and Perotti (1995) review the contributions to the debate in the 1980s and early 1990s; a survey of subsequent research and discussion is provided by Eslava (2006).

Figure 1. Trends in government deficits and debt



Source: OECD Economic Outlook No 85..

…and budget action may become pro-cyclical in upturns

6. In some countries there is evidence of budgetary responses actually turning into pro-cyclical budget action during the upturn – in euro-area countries in particular (Ahrend *et al.* 2006*a*). [3] Expenditure increases and tax cuts in the upturn have been politically difficult to resist when windfall revenue increases are mistakenly taken as structural, as in the case of sharp movements in asset and real estate prices. Towards the end of the dotcom boom OECD-area fiscal stance became distinctly pro-cyclical, particularly in the larger euro-zone economies, pushing up structural deficits (Girouard and Price, 2004). In the more recent financial market boom and collapse the same phenomenon of abnormal revenue buoyancy reoccurred, prompting pro-cyclical discretionary action in several countries.

Stabilisation policies help condition the time profile of OECD deficits…

7. There has been a high degree of consensus across OECD economies as to what governments can achieve via the active use of fiscal deficits, which has made for a significant degree of fiscal synchronisation over time. The operational consensus up to the second oil shock - which included the response to the first – had been that deficit finance could stabilise output, subject to some trade-off with inflation. That consensus disappeared as inflation accelerated, output stagnated and public borrowing surged (Figure 1), and was replaced by a supply-side approach to macro-economic policy. This was associated with a wariness of discretionary action and an emphasis on built-in fiscal stabilisers, which should, in principle and in the absence of supply shocks, exert a symmetrical impact on deficits. There have been differences among OECD economies as to the application of that approach, dependent on the strength of built-in stabilisers, which are much stronger in European countries than in the United States, for example. But the process of globalisation – by which trade leakages and interest rate effects reduce fiscal multipliers, especially for small, open economies – tended to create a relative conformity of views with respect to what fiscal policy can achieve compared with a growth-oriented policy of structural reform, where the public sector's contribution is to create the conditions for private sector wealth creation. The financial crisis has called this consensus on public sector 'neutrality' into question, since large discretionary fiscal interventions have taken place which has been labelled a 'new fiscal policy activism' (Auerbach, 2009).

…but idealogical factors explain some differences

8. There is at least *prima facie* evidence that deficits have been used to expand the public sector in that a positive correlation can be observed between gross debt/GDP ratios and outlay/GDP ratios among OECD economies prior to the crisis (Figure 2). However, idealogical factors obviously play a part here. While there has been a high degree of consensus on the limited macro-economic benefits of fiscal activism, there have still been differences in fiscal behaviour among OECD economies driven, in part, by partisanship attitudes to deficit accumulation (Hibbs 1977). Governments that expect to be voted out of office may be tempted strategically to over-issue debt so as to tie the hands of opponents with a more expansionist ideology, thus using debt to limit spending. Cutting taxes before spending has been seen in some countries, especially in the early 1980s and 2000s in the United States, as means of way of increasing budgetary pressure to reduce spending. Whether such a strategy has been fully effective is doubtful (Romer and Romer 2007), but it may help to explain why the US debt ratio is high relative to the expenditure ratio (Figure 2).[4] Conversely, the fiscal bipartisanship of Scandinavian countries, based on the acknowledgment

3. See also Ballabriga and Martinez-Mongay (2002) who show that for the EMU countries during 1979-98 indebtedness is associated with greater pro-cyclicality.

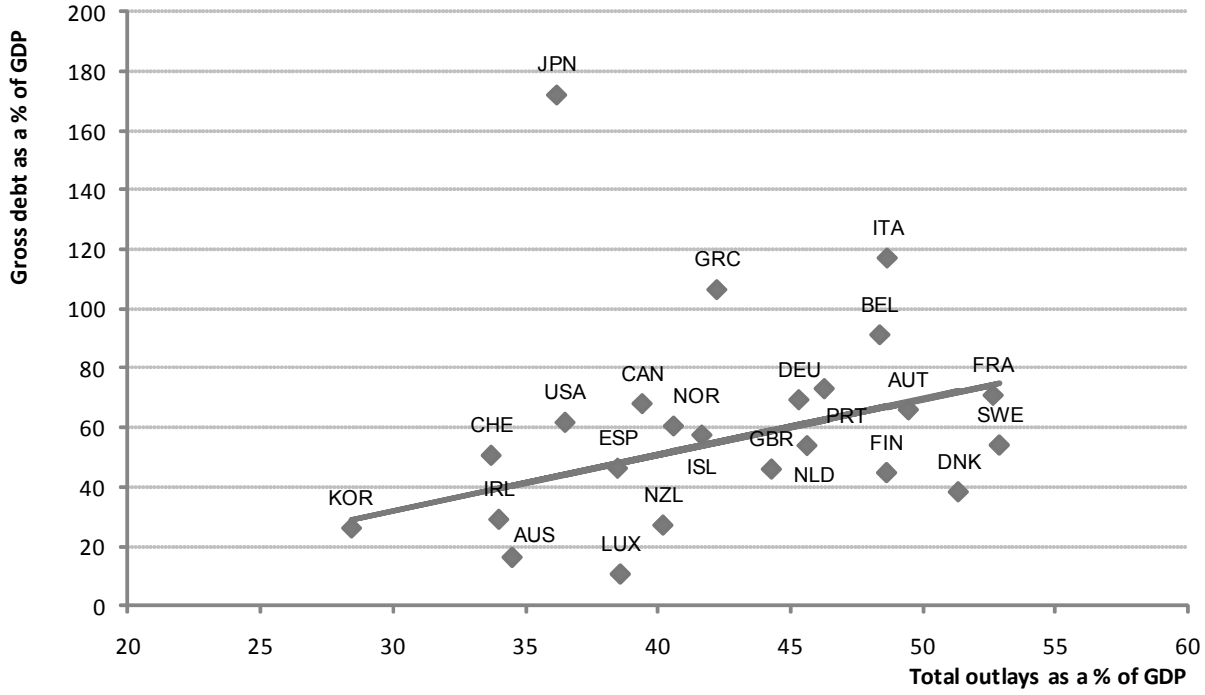
4. The most conspicuous examples of such a strategy are provided by the Reagan and G.W Bush tax cuts, which were based on the argument that the most effective way to contain government spending is to 'starve the beast' by reducing taxes and increasing deficits.

of the positive links between taxation and welfare and the universality of benefits may help to explain the relatively low debt ratio, for the size of the public sector, in those economies.

Government fragmentation and lower electoral accountability may contribute to deficit bias

9. Institutional factors governing fiscal policy formulation, approval, implementation and accountability may also create deficit bias. Much attention has focused on conflict between different groups over the distribution of funds, within fragmented political systems, as a driver of public debt accumulation. Changes in fiscal stance are less frequent and less radical the greater the number of players with veto rights over enactment (Tsebelis 1999). On the other hand, a lack of political cohesion appears to make it difficult to muster political support for fiscal consolidation when the necessity coincides with periods of cyclical weakness (OECD 2003).[5] Bias appears to be most marked in parliamentary regimes with proportional representation, where spending (particularly welfare spending[6]) tends to react more

Figure 2. Gross debt and expenditure ratios compared



5. The indicators of political cohesion are based on the World Bank's Political Institutions database.

6. Proportional elections induce politicians to seek support from a wider range of the electorate via broad spending programmes, favouring spending on social transfers under such a regime.

strongly to negative than positive shocks and be more persistent over time. Conversely, post-election fiscal adjustments are more prominent in majoritarian democracies (Persson and Tabellini, 2003).[7]

Lack of budget transparency helps create deficits

10. Deficit-generating behaviour will be facilitated where a lack of transparency reduces budgetary accountability. Countries with more transparent budget procedures exhibited greater fiscal discipline in the 1980s and early 1990s according to von Hagen and Harden (1994). Recognition of the importance of transparent budget practices has led to greater openness, often embedded in legislation.[8] The criteria set out in the OECD *Best practices for Budget Transparency* provide a benchmark for assessing the openness about fiscal policy intentions, formulation and implementation, including the need for a pre-election report to illuminate the general state of government finances prior to elections (OECD 2002). Using a transparency index for 19 OECD countries during the 1990s, Alt and Lassen (2006) conclude that weaker transparency is associated with higher deficit and debt levels.

Private-sector responses may contribute to deficit bias

The private sector is partially aware of deficit bias…

11. Whether governments resort to deficit finance obviously depends, in part, on private sector responses to them. Persistent opportunistic fiscal behaviour only makes sense if electorates underestimate the future costs of current public consumption and a political business cycle can only emerge if the public treat the extra debt as real wealth and spend more on account of that. Moreover, even if the electorate is convinced a first time that deficit-financed spending is sustainable, it cannot be subjected to 'fiscal illusion' consistently, unless it is denied information by incumbents (Rogoff 1990). Governments thus have to take account of private responses before engaging in deficit budgeting. Little empirical information exists on how the public responds to opportunistic behaviour *per se*; most of the literature on the subject is theoretical. But there has been a great deal of research as to how the private sector responds to deficits in general, in particular whether anticipation of the future costs of financing and correcting deficits causes the private sector to save more. Moreover, there is evidence that perceptions of that response have an important bearing on the effectiveness of fiscal policy and the costs of consolidation, which may affect the incentives for governments to run deficits or adopt policies to reduce debt.

…reducing the economic attraction of deficit finance …

12. The evidence that does emerge on private sector responses to budget deficits is mixed, but private and public saving do tend to vary inversely (Figure 3). Attributing this correlation to anticipatory household responses would be erroneous, however. It is difficult to separate saving responses to budget shifts from budget reactions to changes in private saving. Moreover, the saving rate could be affected indirectly by budget shifts, notably where deficits are accompanied by positive effects on real and financial asset prices. It is unlikely that full anticipation of future financing costs obtains for any OECD country (Box 1). However, controlling for exogenous factors, in some OECD economies, there is evidence that electorates do respond partially to deficits by saving more (de Mello *et al.* 2004). In others, notably the United States and Scandinavian countries there is no apparent saving offset (Cotis *et al.* 2005). Where

7. The data set covers 60 countries over 40 years. Primary spending, and in particular spending on transfers to individual and households, tends to rise more in response to macroeconomic shocks in countries with more proportional electoral systems (Milesi-Ferretti *et al.* 2002).

8. New Zealand pioneered more formal approach to fiscal transparency with its *Fiscal Responsibility Act*. Australia followed with its *Charter of Budget Honesty* in 1998, which also saw the publication of the *IMF Code of Good Practices on Fiscal Transparency*.

there are saving effects, there is less incentive for governments to use deficit finance to compensate for the cycle, since the effectiveness of reflationary action is undermined; Ahrend *et al*. (2006a) show that the most prominent exponents of discretionary fiscal policy action have been Anglo-Saxon and Nordic countries, where 'Ricardian" effects are weakest (and in the case of the US reliance on automatic stabilisers also weakest). Elsewhere in continental European, economies have been more likely to rely on automatic stabilisers alone, which should, in principle be less vulnerable to the political business cycle. This pattern of fiscal activism might seem to be loosely related to the different political perceptions about tax discounting displayed by OECD countries.

…and cutting the economic costs of returning to budget balance

13. Furthermore, the costs of consolidation in terms of lost output are smaller where private saving falls in response. Typically consolidation entails output costs which can deter policymakers. Initiating a consolidation effort at moments when cyclical slack is increasing poses the risk of amplifying a recession through negative short-term multiplier effects. However, in certain cases, especially where confidence effects on saving and investment are engendered, private saving will fall and the multiplier may even be negative (Giudice *et al*. 2004). [9] Some fiscal corrections have thus had a positive, stabilising effect. Since the existence of such 'non-Keynesian' effects make it less costly to reduce deficits once they occur, they might *a priori* be associated with low deficits and debt. This does not seem to be the case, however, probably because even when the net effect of fiscal retrenchment on the economy is positive, there will still be distributional effects which have political costs.

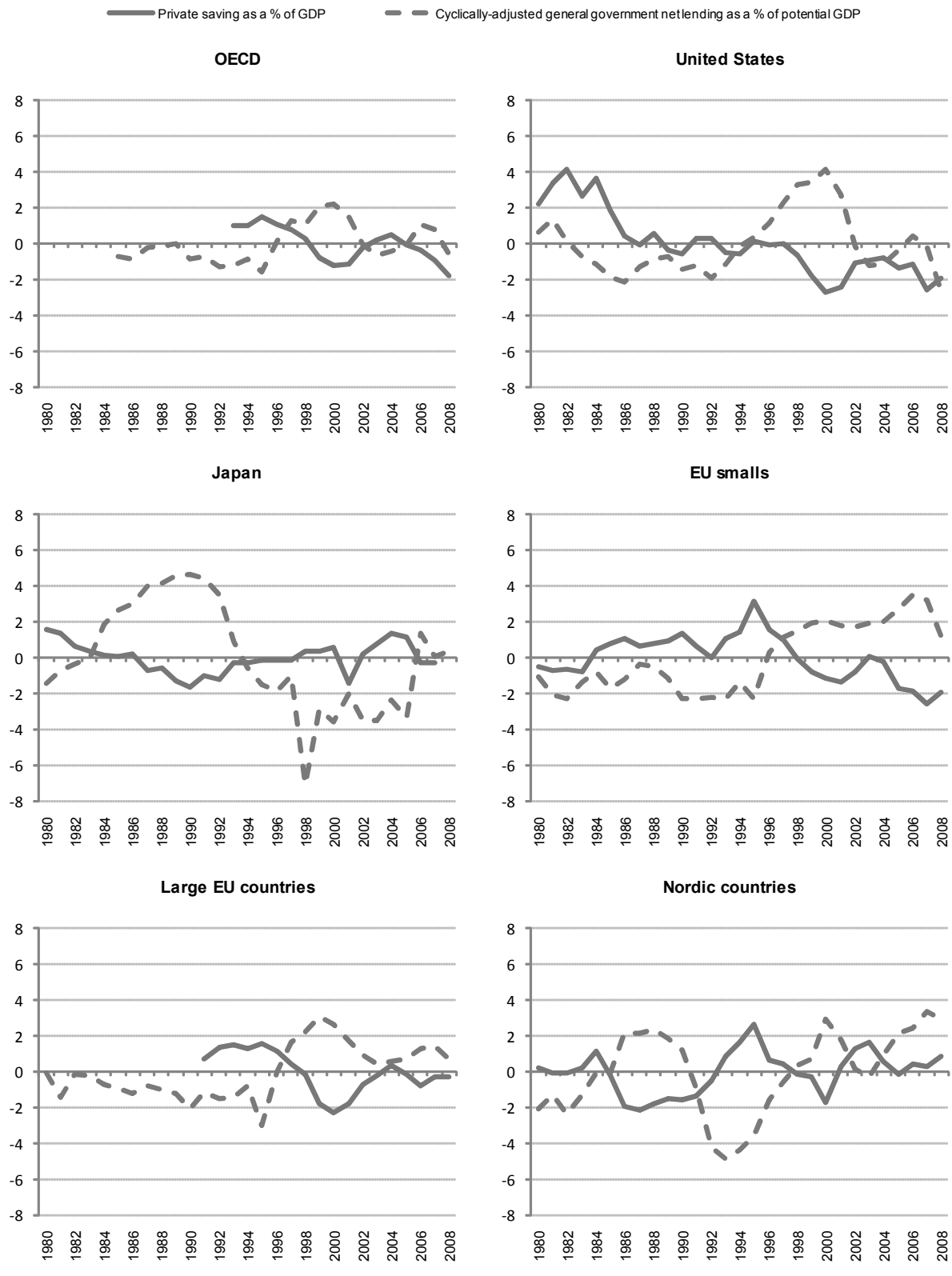
Box 1. Budget deficits may affect private saving behaviour

To the extent that the public are aware of government borrowing – and various other conditions - there is a presumption that forward-looking private agents will fully internalise the fact that borrowing implies higher future debt service and, hence, deferred taxation (Barro 1974; Barro 1989). They will, therefore, save more in anticipation. The existence of such 'tax discounting' has been much debated theoretically and much tested in empirical work. There are strong theoretical objections to the existence of completely offsetting movements in private saving in response to changes in the timing of taxes, focused on the relatively strict behavioural and market requirements for such fully offsetting movements. These include the requirement of a perfect credit market, non-distortionary taxes, and certainty about future taxes, income, and other variables. Also, current consumption decisions need to be based on infinite planning horizons, with positive transfers to future generations based on altruism. In general, these assumptions cannot be expected to hold. Empirical validation of debt neutrality is constrained by the difficulty of disentangling all the channels through which offsetting movements in private and public saving may take place, regardless of whether debt neutrality holds.

The empirical issue will probably never be satisfactorily resolved. However, in some countries the behaviour of the private sector is often not inconsistent with tax discounting. And the perception of possible saving offsets is a strong theme in the political economy literature. The existence of even partial offsetting effects may help account for differences in attitudes to discretionary fiscal policy and the sustainability of public debt. Where there is tax discounting the effectiveness of fiscal policy is reduced and the potential for a politically induced business cycle reduced. At the same time, where governments build up debt because of exogenous shocks the need to reduce debt is reduced, since it is financed from higher private saving and does not crowd out investment.

9. Among the episodes of fiscal consolidation identified in the EU in the three decades studied, around half have been expansionary. Those which have proved expansionary have generally been based on expenditure cuts.

Figure 3. Private and public saving: deviations from averages



14. In any case, the information available to the public is usually incomplete and anticipatory saving responses will be partial. The empirically robust conclusion in the literature is that the link between government deficits and private savings tends to be clearest when debt ratios are high, suggesting that there is a signalling process involved (Nicoletti 1992, Berben and Brosens, 2007, Kinari and Shibamoto, 2007).[10] Below this threshold of awareness, a lack of transparency may contribute to an apparently myopic public indifference to deficits – though the threshold will vary from country to country. This suggests that only beyond a certain point, where debt become intrusive, does both the activity-increasing benefit of debt-financed public spending and the cost of reducing it become so small as to make fiscal consolidation an economically costless option.

Unfunded future liabilities can build up without the public being aware…

15. Much of what governments decide in the present has implications for future spending and deficits and problems will arise when these are not adequately foreseen. The expansion of the welfare state in the 1960s and 1970s created (largely unforeseen) liabilities in terms of future pension and health obligations which have meant that governments have had to consolidate even to stand still in terms of current deficit and debt ratios. In particular, the unscheduled buildup of future liabilities, via changes to entitlement programmes, where costing of future obligations has been imperfect, meant that the cost of 'off-budget' implicit liabilities would in several countries dwarf that of outstanding public debt. The problem has been that because of the demographic build-up in spending pressures, delays in implementing consolidation increase the ultimate political costs (Cournede 2007).

…and acquired rights are difficult to alter

16. To some extent, the argument about the costs of delay seems to have been understood by policymakers, since there are numerous examples of successful pension reform. But selling fiscal consolidation to the population can be difficult when it involves redistribution among current taxpayers and between current and future taxpayers (where the protection of acquired rights will involve higher taxes if benefits are to be maintained). Unfunded acquired rights to state pensions have proved very difficult to alter because of popular resistance and this has generated a need to propitiate public opinion in order to achieve reform. One of the strongest findings to emerge from a series of case studies of the political economy of structural reform, which would seem transferable to fiscal consolidation at large, is that convincing electorates and gaining an electoral mandate are crucial (OECD 2009). Indeed, insofar as pension reforms tend to focus on questions of long-term sustainability they tend to be adopted only after extensive consultation. One of the most important factors in the consolidation process may thus be persuading the public of its need, with greater budget transparency and fiscal rules possibly having a part to play here.

Resistance to tax increases may be become intense but varies among countries

17. While during the 1970s and early 1980s deficit bias was associated with secular tax and expenditure increases, popular opposition to tax increases was also growing over this period. The resistance was encapsulated by the rhetorical device of the 'Laffer curve', according to which attempts to increase the tax rate above a certain level lead to a reduction in revenue. The existence - or more precisely the shape of tax rate/revenue curve - has been much discussed and the influence of the concept on

10. Kinari and Shibamoto find that an increase in government expenditure causes a decrease in private consumption when the government debt/GDP ratio is high, whereas when the ratio is low, it has a positive effect. In Japan, an increase in government expenditure had a Keynesian effect before around 1998, but after that, it had a non-Keynesian effect.

policymakers has varied substantially among OECD economies.[11] It may have played a prominent part in the 'tax revolt' of the 1970s in the United States, but estimates of the supply-side limits to taxation differ substantially, within and between countries. However, the idea that high taxes could be economically distorting began to have an important influence on budget policy-making. After the severe ratcheting up in general government claims on resources that occurred in the 1960s and 1970s there was a perceived need to cut taxes rather than to raise them (OECD 1989).[12] As productivity growth declined, concerns grew about the efficiency effects of over-taxation. In this context, tax increases began to be seen as possibly more detrimental to economic performance than the effects of high deficits.[13] Correcting budget imbalances through tax increases was thus seen as potentially making the budget problem worse in the longer run. The clearest expression of this trade-off is to be seen in the supply-side tax cuts of the Reagan administration which actually had the effect of pushing up deficits and debt in the United States. Elsewhere it can be seen in a growing emphasis (described below) on expenditure cuts as the principal means of consolidation, which meant that the rigidities described above needed to be confronted.

Role of financial market discipline

The cost of borrowing constrains the primary balance

18. The political economy literature is concerned with deficit biases caused because providers and recipients of public services do not fully discount the costs of borrowing. However, borrowing does have to be paid for, by issuing debt, and a key 'player' with which governments have to deal in that respect is the financial market. Financial markets can exert an important disciplining effect, but governments also have privileged access because of the implicit collateral they have in terms of future taxing power, which lowers (and for some countries eliminates) risk for lenders and encourages government borrowing. They may also have access to money finance, via the central bank. Rates of interest on government debt have varied substantially over time – particularly in inflation-adjusted terms, and it would appear that government spending behaviour reacts to these variations, judging by the correlation between primary balances and the real costs of debt service (Figure 4).[14]

11. For a retrospective discussion see Middleton (1997). The idea that that the tax rate can reach a point where revenue begins to fall and becomes zero again can be traced to the 19th century French economist Dupuit.

12. It had become clear "that the real social progress we can achieve is limited by economic means, that methods of achieving social objectives should not be allowed to undermine the economic system which produces the means; and that we live in societies based on the principle that individual consumers are, in the main, the ultimate arbiters for allocating means to ends" (Opening Address of the Secretary General OECD 1981).

13. The critical assumption here is that the marginal excess burden of taxation increases with the square of the tax rate (a proposition noted in OECD (1989)). This means that the net efficiency gain from substituting tax for debt finance is likely to become negative at some point as the tax burden rises, depending on whether the debt ratio is stable.

14. The figure compares the contribution of the primary balance to the change in the debt/GDP ratio, adjusted for the effect that GDP growth has in reducing that ratio, with the effect that debt interest has in increasing or reducing the debt ratio, adjusted for the effects of inflation in eroding the real value of debt. When the real rate of interest, so defined, is negative, governments are effectively imposing an 'inflation tax' on holders of government debt.

Using an 'inflation tax' only temporarily boosts deficit spending…

19. Up to the second oil crisis the real interest paid on government debt was substantially negative in most countries, implying a substantial 'inflation tax' – a form of expropriation of bond-holders wealth.[15] While the dominant economic rationale at the time was that higher inflation was acceptable if it came with higher output, the extent of the inflation-tax generated was a surprise rather than a deliberate. Nevertheless, primary government balances decreased markedly up to the end of the 1970s, as governments took advantage of the negative real costs of borrowing. Sustaining inflation-tax revenue is particularly problematic, however, given that money and bond holders will react to the tax by cutting back on money and bond holdings, unless inflation persistently accelerates. The adoption from the early 1980s of a new orthodoxy to prevent this, based on monetary and inflation control and central bank independence, cut off money finance and forced governments to compete for funds in the capital market, while bond holders began to demand a risk premium for holding government debt (OECD 1982).

…and markets can sometimes penalise governments for over-borrowing…

20. Through the 1980s financial market discipline was severe, which had the effect of forcing OECD governments to reducing primary deficits or run surpluses. Real bond yields do seem to be pushed up as governments compete for loanable funds with the private sector, although the extent is subject to some controversy (Laubach 2004). Most research shows the effect to be very incremental and small, though by no means negligible in its effects on debt interest payments.[16] Ratings changes also seem to react slowly and to give poor anticipatory information about budget problems (Balassone *et al.* 2004). Markets thus do not always tend to respond proactively to debt accumulation, so that the conditions for the market to impose discipline on governments in a smooth fashion have been met. Rather, there appear to be thresholds which trigger large movements in risk premiums, at which point the penalty for over-borrowing can suddenly become steep. For most OECD economies, the importance of this trigger mechanism was accentuated by the process of global financial and trade integration, which in an environment of floating exchange rates meant that external pressures could turn public debt imbalances into financial crises.[17]

…but may be too accommodating

21. For long periods, financial market influences can be benign. The budget constraint eased in the 21st century, as evidenced by historically low bond yields (Ahrend, 2006b). The real rate of interest on government debt was well below economic growth rates from 2003 to 2007, creating the 'conundrum' that the build-up in US government and external debt did not trigger a market reaction in the United States. The explanation may lie in the existence of ample global private sector saving - a global savings glut – which may have made budget financing easier (Bernanke 2005). A further reason may be the fact that a large proportion of overall financing of the US 'twin deficits' came in the form of official dollar purchases by central banks in Asia, to whom a stable dollar exchange rates has been more important than the rate of return on dollar assets. Prior to the financial crisis, liquidity in general was plentiful and risk premia low, so governments were shielded from pressures to reduce their borrowing as global leverage increased.

15. The concept of the inflation tax is closely related to that of seignorage, where governments can finance part of their borrowing needs by issuing base money; the amounts raised via seignorage have sometimes been quite large in the past (Fisher 1982). Seignorage and the inflation tax are often viewed as equivalent, at least in the long run, where inflation grows proportionally to base money.

16. Increasing the debt level would add 4 basis points to the bond rate according to Laubach, which would translate (depending on the pace at which debt is rolled over) into an increase in the debt burden of 0.25% of GDP where the debt ratio is 60%.

17. Research with respect to industrial economies in the 1980-2004 period finds that rising government debt and high current account deficits tend to be important ingredients in currency "crashes" (Gagnon, 2005).

Subsequent to the crisis, governments (with some exceptions where sovereign risk premia have increased) have been able to finance large increases in debt at continuing favourable rates, partly because risk premia on other financial instruments have risen. The markets have thus been party to the process of fiscal 'deconsolidation'. This behaviour would seem to be consistent with historical experience of a strong market appetite for government debt when inflation is low, but does not preclude a sudden reversal.

II. Drivers of the consolidation process: fiscal crises and the pursuit of sustainability

Consolidation occurs mainly where deficits become excessive

22. Against the background of an underlying bias towards deficit, there have been frequent interventions by OECD countries to correct excessive borrowing. Recent OECD research has identified 85 episodes of consolidation between 1978 and 2004 among 24 OECD countries (Ahrend *et al.*2006a and Guichard *et al.* 2007), defined as actions which, once started, resulted in a noticeable improvement in the cyclically adjusted primary balance (CAPB).[18] Most of the consolidation episodes have been of short duration and have involved only modest gains (Figure 5). The median improvement of the underlying budget position has been 2.8% of GDP and the median duration two years. There have, however, been a number of large efforts, amounting to more than 8% of GDP, as well as a few episodes lasting from six to eight years.

23. The consistent conclusion of empirical studies is that fiscal consolidation is more likely to come about in times of "crisis" rather than in good times. The initial levels of the fiscal deficit and interest rates are highly significant in explaining when adjustment episodes are started or continued (Ahrend *et al*. 2006a; Guichard *et al.* 2008) (Figure 6). Moreover, fiscal crises are often associated with economic crises. Consolidation is also more likely to be started after large exchange rate depreciation and when inflation is high, and it is more likely to be continued when the real effective exchange rate is depreciated relative to its long-run average. The precise mechanism by which crises generate consolidation is uncertain. It may be *force majeur*, driven by an unsustainable fiscal stance. But crises also increase public awareness of fiscal problems and thus help in overcoming resistance. The importance of crises for political consolidation is consistent with the reform framework outlined by Alesina *et al.* (2006) who apply a 'war-of-attrition model' to the analysis of why some countries introduce fiscal reform more rapidly and effectively than others. According to this model, political conflict over what type of stabilisation to implement, especially the distribution of costs, leads to delays in adjustment. Stabilisations occur when exogenous factors intervene to make opposition unsustainable (crises), or where trade-offs can be designed to resolve distributional conflicts.

Longer-run consolidation processes depend on definitions of fiscal sustainability

Consolidation patterns vary substantially…

24. While there has been a certain amount of cross-country consistency about the motivation for reducing deficits, the picture with respect to net government debt positions indicates that there have been significant differences in strategic approach to debt reduction. There is considerable variations in the extent to which OECD economies have consolidated fiscal stance over the period since the OECD area debt ratio

18. According to the study, a fiscal consolidation episode: starts if the cyclically adjusted primary balance (CAPB) improves by at least one percentage point of potential GDP in one year or in two consecutive years with at least ½ percentage point improvement occurring in the first of the two years; Continues as long as the CAPB improves. An interruption is allowed without terminating the episode as long as the deterioration of the CAPB does not exceed 0.3% of GDP and is more than offset in the following year (by an improvement of at least 0.5 % of GDP); Terminates if the CAPB stops increasing or if the CAPB improves by less than 0.2% of GDP in one year and then deteriorates.

reached its mid-1990s peak and the situation prior to the financial crisis (Table 1). In 2007, net debt positions (gross financial liabilities minus financial assets) varied substantially among OECD countries, there being a positive correlation between government net debt ratios and underlying fiscal balances, which are constructed so as to eliminate one-off and cyclical factors (Figure 7, panel A). In 2007, eight countries had both a fiscal surplus and a positive net financial asset position: Asia-Pacific countries (Australia, New Zealand and Korea), Nordic countries (Denmark, Finland, Norway and Sweden) and Luxembourg. Once an economy achieves a surplus and/or a net asset position, special political economy problems arise, as surpluses seem to be highly visible and vulnerable politically (Price *et al.* 2008).

…reflecting different strategic approaches

25. Differences as to what constitutes good (or bad) fiscal policy may be responsible for variations in the extent to which OECD economies have consolidated. There is no consensus on, and no accepted theoretical basis for, judging the extent to which a budget position is fiscally sustainable (Box 2). At its simplest, sustainability can mean debt stability – present or future. But even if fiscal parameters are adjusted to the point where the debt ratio will eventually stabilise, there is no guarantee that it will be financeable without pushing up interest rates and 'crowding out' the private sector, generating inflation, or raising tax rates to unsustainable levels.[19] The most operationally influential consolidation objectives have been the 3% deficit rule, as imposed by the Maastricht Treaty, a balanced budget rule, or a balanced budget excluding public investment (the 'golden rule'). However, where there are off-budget (present or future) government liabilities, or where government income is dependent on resources which will eventually be depleted, governments may need to follow a surplus rule. The level of the budget balance will eventually determine the debt ratio – under a balanced budget rule, net debt would tend to zero, while a surplus rule would lead to the build-up of net assets. But in any given period, governments can maintain completely different – and sustainable - combinations of the two, since views about 'optimal government debt' can differ even more than those about debt sustainability (Price *et al.* 2008).

19. Under the Bretton Woods system (of fixed exchange rates), sustainability usually showed up in imbalances on the external side, before people could become concerned about public debt. With the adoption of floating exchange rates, from the early 1970s, fiscal sustainability problems emerged in the form of accelerating inflation control. Since expanding budget deficits were financed by money creation, the tax gap was filled by an 'inflation tax', which was effective in reducing debt even though recorded deficits were high.

Figure 4. Primary balances react to the real cost of debt service

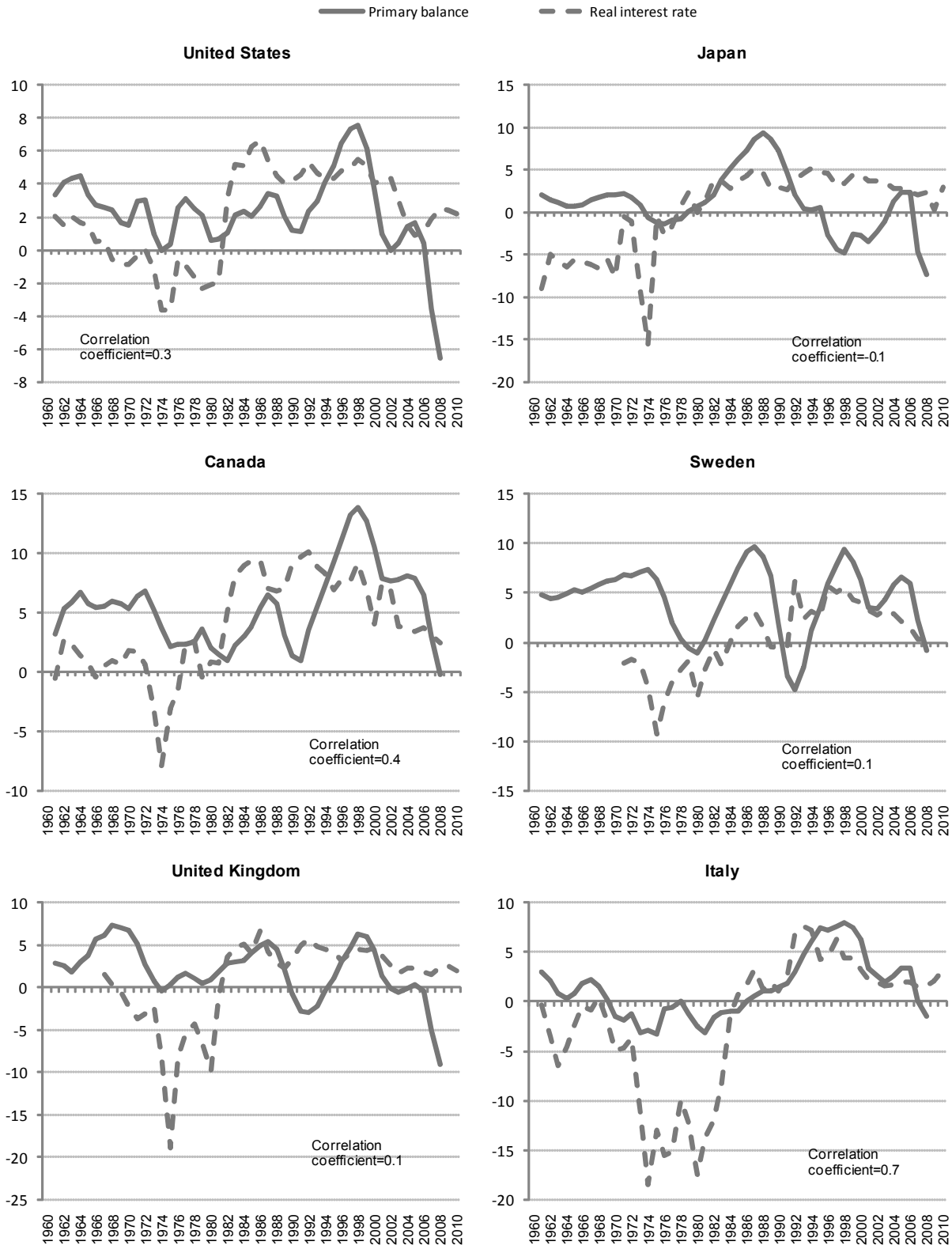
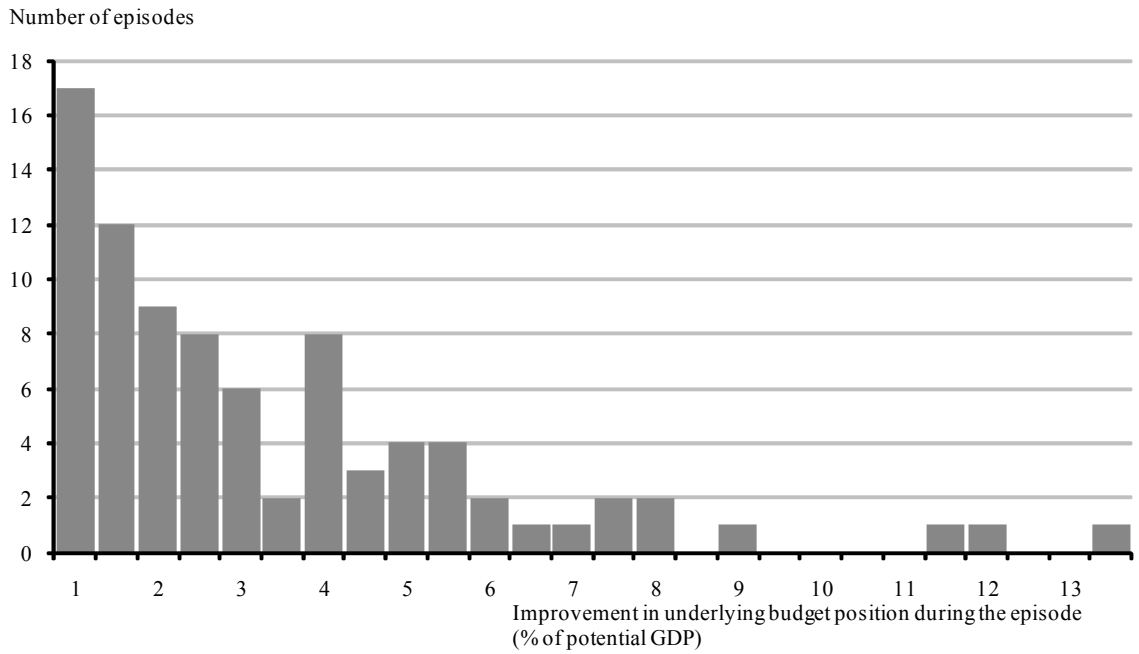
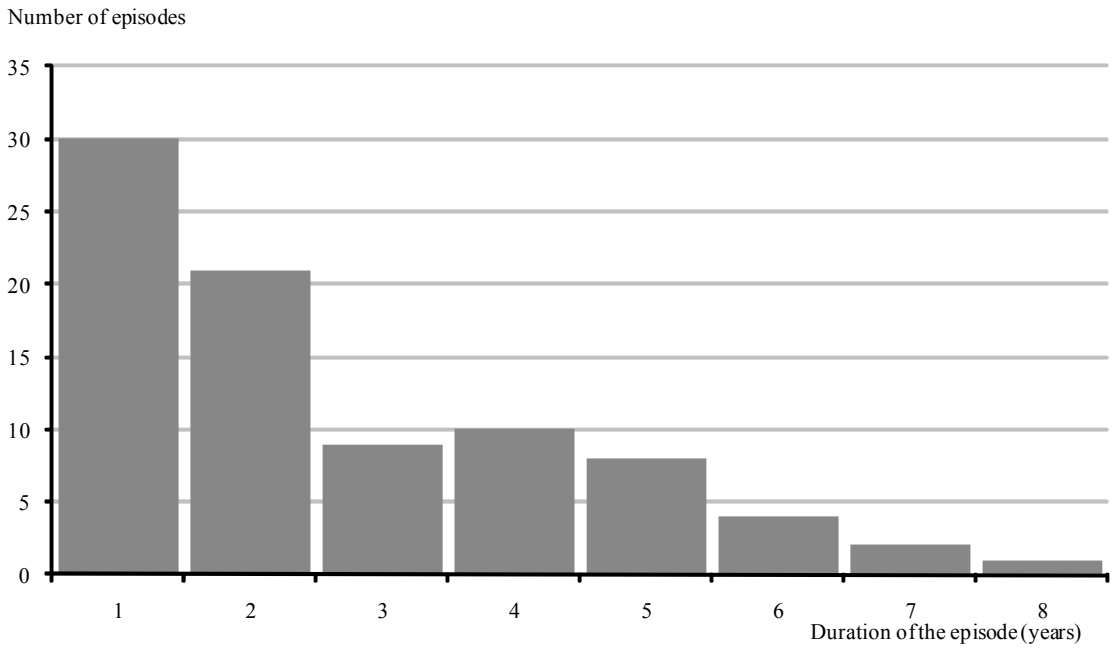


Figure 5. Strength and duration of consolidation episodes

The distribution of episodes by the size of consolidation

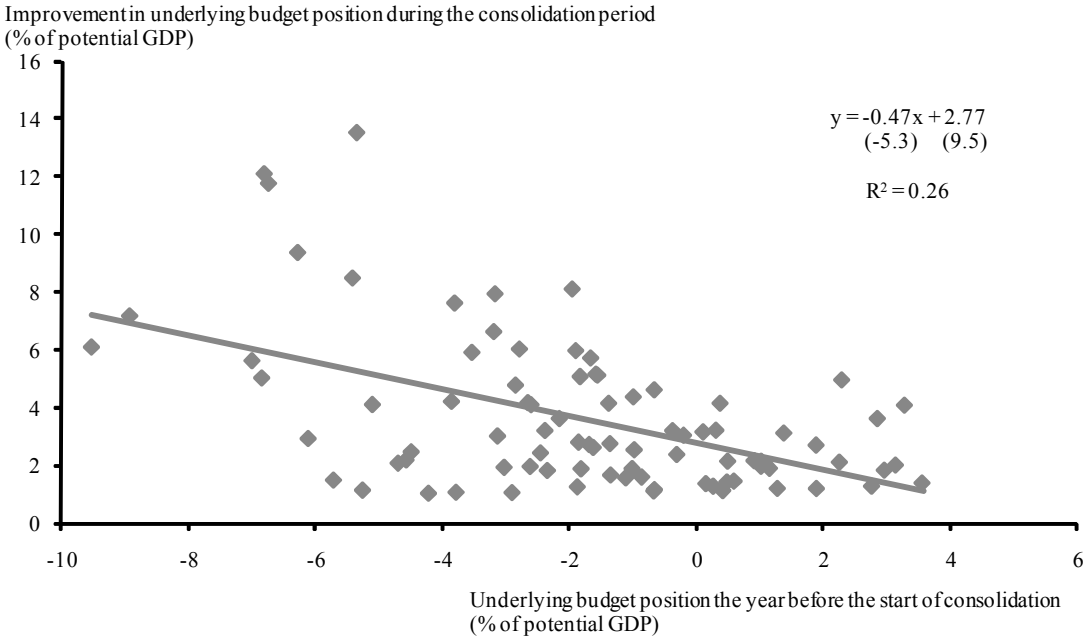


The distribution of consolidation episodes by duration



Note: The budget concept referred to is the cyclically-adjusted primary budget balance.
Source: OECD calculations.

Figure 6. Initial fiscal positions and subsequent adjustment



Note: The budget concept referred to is the cyclically-adjusted primary budget balance. The total change during the episode is defined as the value in the last year of the episode minus the value in the year before the start of the episode.
Source: OECD calculations.

26. During drawn-out retrenchment processes, the pace of consolidation tends to be determined by debt dynamics, which evokes different political economy considerations from discretionary budget cuts because the process is passive and less politically visible (until surpluses begin to appear). Negative 'debt dynamics' arise when governments do not set aside sufficient resources to service their debt and if they do not debt will expand indefinitely (which is unsustainable). Formally (focusing on the debt/GDP ratio rather than debt itself), an unsustainable situation arises when the primary budget balance/GDP ratio is insufficient to offset the increase in the debt ratio arising from increasing debt interest, which depends on whether the economic growth rate is above or below the interest rate on government debt. Conversely, with favourable debt dynamics, the debt ratio will reduce automatically. Given the advantageous fast growth/low interest rate environment before the crisis, all but a few OECD countries had achieved an underlying fiscal balance sufficient to stabilise or reduce the net debt ratio (Figure 1, panel B). In some, including the Nordic countries, Korea and New Zealand, maintaining the underlying surplus at the then level would have ensured a continued increase in their net asset position to above 40% of GDP, while in Australia, Canada, Switzerland and Spain, the net asset ratio would eventually have reached around 20% of GDP. Such ratios are not an intentional an intentional outcome of policies, of course, and could even cause problems if they were to occur, so countries which have successfully consolidated face important issues as to where to draw the line under the consolidation process (Price *et al*. 2008).

III. Factors conditioning the success of consolidation

27. This section looks at the empirical evidence, based on quantitative cross-section analysis of consolidation episodes where available, as to the factors which help propitiate fiscal consolidation and, perhaps more importantly, which make for permanent improvements in fiscal positions - factors which make for short run improvements in the primary balance do not necessarily lead to the attainment of longer run deficit/debt equilibrium.

Monetary and financial conditions affect the profile of fiscal retrenchment

Falling interest costs do not always help consolidation

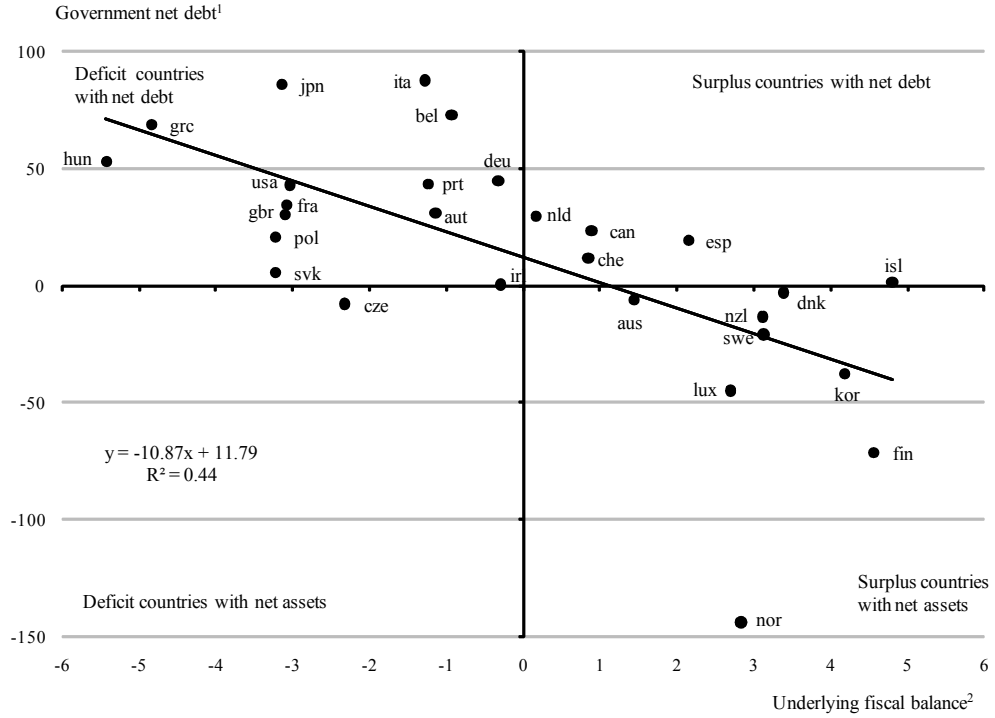
28. Translating favourable debt dynamics into consolidation is not always easy. Cross-section studies confirm the tendency for higher interest costs to promote consolidation in the primary balance and for a lower average interest cost to be offset by a lower intensity of adjustment, as measured by the change in the cyclically-adjusted primary balance. The offset may be only partial (Figure 8), in which case there would still be an improvement in the overall budget balance and hence in the debt ratio following a fall in interest payments. However, cross-section/time series analysis reported in Hercowitz and Strawczynski (2005) (from a data sample of 18 countries over the 1980-2003 period) indicate that a sustained decline in interest payments generates a long-run increase in other expenditure not statistically different from the decline in interest payments: hence, declining debt service may not on average feed through to a reduction in total government spending. Country experiences differ, however. Some of the large consolidation episodes of the 1990s -- such as Belgium in 1993-1998 and Canada in 1995-1997 - were followed by periods where lower primary surpluses gradually offset the decline in interest payments, but the improvement in the overall balance was maintained. By contrast, in Italy the decline in the primary surplus after the 1995-1997 consolidation far exceeded the decline in interest payments reversing a large part of the earlier gains. A similar reversal of earlier consolidations has occurred in France, the United Kingdom and the United States.

Table 1. Consolidation measured by debt-ratio change and primary balance since 1994

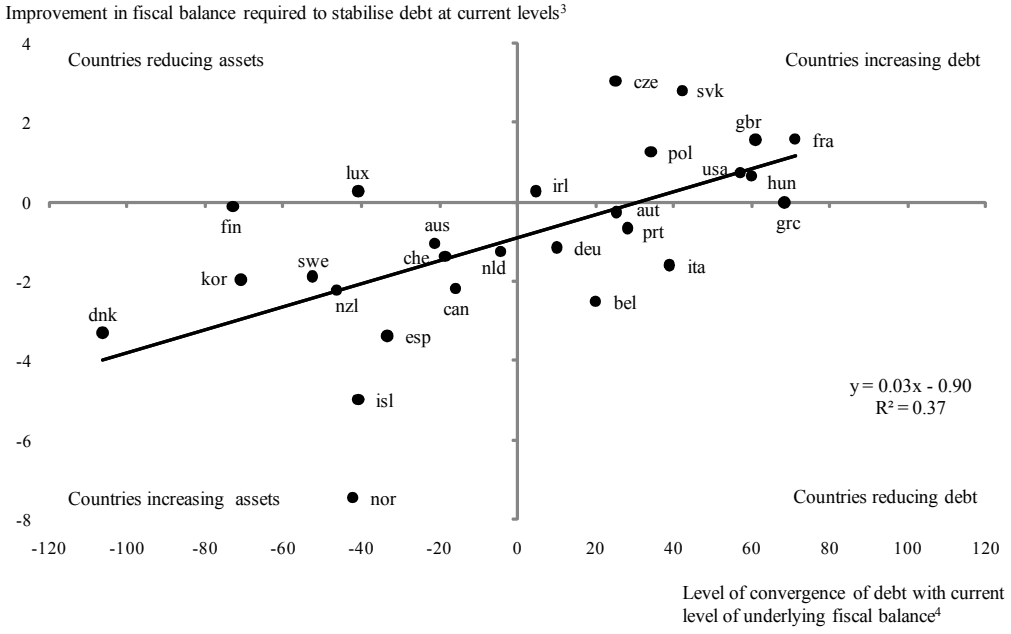
	Debt ratio		1994-2007		Debt ratio	2007-2010	
	1994	2007	change in debt ratio	average primary balance	2010	change in debt ratio	average primary balance
Australia	40.6	15.3	-25.3	2.2	21.5	6.2	-0.6
Austria	65.4	61.9	-3.5	0.2	79.2	17.3	-0.6
Belgium	137.7	87.7	-50	4.6	106.4	18.7	0.6
Canada	98	64.2	-33.8	2.9	82.0	17.8	-1.9
Denmark	78.9	31.6	-47.3	2.9	51.4	19.8	0.7
Finland	60.8	41.5	-19.3	1.8	52.4	10.9	0.6
France	60.2	69.9	9.7	-0.4	94.2	24.3	-2.7
Germany	46.5	65.5	19	-0.2	84.1	18.6	-0.3
Greece	101.2	103.2	2	1.5	111.8	8.6	-1.2
Hungary	94.3	71.9	-22.4	-1.6	87.1	15.2	-0.4
Iceland	77.3	53.8	-23.5	0.9	108.8	55.0	-5.0
Ireland	62.2	28.3	-33.9	3.1	80.3	52.0	-7.3
Italy	120.9	112.5	-8.4	3.0	127.3	14.8	1.2
Japan	79.4	167.1	87.7	-4.8	199.8	32.7	-4.5
Korea	5	25.7	20.7	2.4	39.3	13.6	-0.2
Netherlands	86.7	51.1	-35.6	1.4	76.6	25.5	-0.6
New Zealand	57.4	26.2	-31.2	3.1	33.4	7.2	-1.0
Norway	37.3	58.4	21.1	7.6	72.3	13.9	9.9
Portugal	68.8	71.1	2.3	-0.4	90.2	19.1	-1.5
Spain	64.3	42.2	-22.1	1.2	68.2	26.0	-4.0
Sweden	82.5	48.4	-34.1	1.4	57.3	8.9	0.3
Switzerland	45.5	48.1	2.6	-0.2	47.8	-0.3	0.3
United Kingdom	46.8	46.9	0.1	0.0	89.3	42.4	-6.6
United States	71.1	62.9	-8.2	0.5	97.5	34.6	-5.7
Euro area	69.1	71.2	2.1	0.9	89.2	18.0	-1.1
OECD	67.8	73.5	5.7	0.1	100.2	26.7	-3.5

Figure 7. Correlations between fiscal balances and net debt

A. Current level of underlying fiscal balance and net debt, 2007



B. Underlying fiscal balance and debt dynamics



1. In per cent of GDP.
2. Cyclically adjusted balance excluding one-off and other temporary measures expressed in per cent of potential GDP.
3. Difference between the 2007 underlying fiscal balance and the level of the fiscal balance which would stabilise debt at the 2007 level, assuming a steady state nominal GDP growth equal to the 2007 potential GDP growth rate.
4. Level to which net government debt would converge in the long run if the level of the underlying deficit were to remain constant in the future.

Source: OECD EO84 database.

Box 2. **Defining fiscal sustainability and setting consolidation objectives**

Avoiding excessive debt accumulation. In the case of the debt ratio, sustainability 'is essentially about whether a government is headed towards excessive debt accumulation' (Blanchard *et al.* 1990). The clearest indication of an unsustainable fiscal stance is where the combination of deficits and interest payments causes the debt ratio to rises continuously; at some level an explosive debt ratio necessarily becomes impossible to finance. At its weakest, fiscal sustainability could be specified as a situation where *debt converges to a finite limit*, which is the case where the overall deficit-to-GDP ratio stabilises at some point in the future. Consequently the taxes needed to service interest payments also converge to a finite value as a share of GDP.

This, however, is rather a weak constraint, with little practical relevance to fiscal policy making, except where governments have already achieved a sustainable level of debt. Even where the debt ratio stabilises it can still be unsustainable if the future tax rate has to rise beyond sustainable levels in order to stabilise the debt ratio. The concept of an increasing debt ratio which pushes the tax ratio up to unsustainable levels is thus critical to fiscal stabilisation. The supportable tax ratio differs from country to country and is impossible to define. However, it does play an important implicit role in the political economy of budget deficits. The concept of a sustainable tax rate is particularly relevant when government implicit liabilities are included in the definition of government debt. The effects of demographics on public pension obligations, health and other old-age spending has been the subject of much analysis and debate.

A stronger budget constraint which allows for tax as well as debt stability would be imposed by the necessity for the ratio of debt to GNP to *converge back to its initial level* (Blanchard *et al.* 1990), which would involve running primary budget surpluses to pay back debt. This definition is tighter, and would seem to approximate to the revealed preferences of those countries where debt ratios have been relatively inert. But it is still arbitrary and the justification for the ratio to eventually return to its initial level, as opposed say to zero, or to a higher but stable level, is not evident. ,

Sustainable debt objectives can be defined in various ways:

A stronger approach would imply specifying a *sustainable level of public debt*, but there is little agreement as to what that level should be:

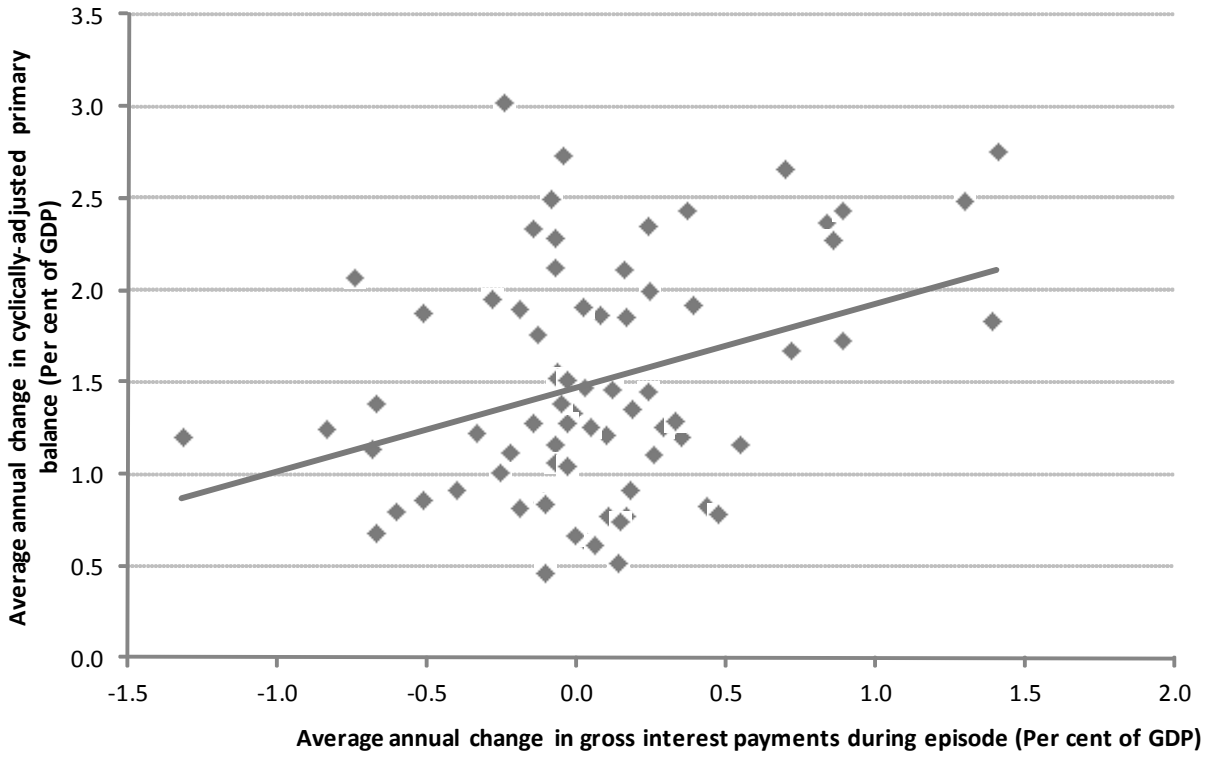
The Maastricht rules are an example of an arbitrarily imposed debt limit, with a stability rationale. They have called for a 3% ceiling for the deficit-GDP ratio and a 60% ceiling for the debt-GDP ratio, these limits being designed to suit a situation where inflation is 2% per annum and real growth 3% per annum, so that the debt-GDP ratio would trend towards 60% of GDP. They do not incorporate a theory of what the optimal level of government debt should be.

The debt optimality literature suggests that a permanent increase in government spending should always be financed by taxes, implying a long-run balanced budget and a debt ratio of zero.[1] However, it may be argued that public investment should be financed by borrowing, and differences over this 'golden rule' approach have been marked; also, once implicit government liabilities are incorporated a surplus may be needed – governments should prefund by building up assets. Net debt could thus be negative. Third, according to the tax smoothing hypothesis, deficits can and should be used to finance temporary spending, but there is no welfare advantage in running down the debt incurred more rapidly than would happen by maintaining a zero structural deficit. Any temporary tax hike needed to achieve these results in unnecessary welfare losses. Hence, even if deficits are only used for temporary spending purposes, there may be a positive debt/GDP ratio over long periods.

A more ambitious approach is to set an objective for the accumulation of government liabilities which also takes into account the requirement to fund future government liabilities, or to smooth government disbursement of resource-related revenues. This may entail the build-up of government assets. Taken to its logical conclusion, this implies that, in principle, optimality indicators need to be framed in terms of government net worth - *i.e.* taking into account changes in the asset side of its balance sheet.

1. Specifying an optimal level of debt requires a view on the welfare loss imposed by raising taxes to reduce debt. Barro (1979) demonstrates that, for a particular set of assumptions, there are efficiency benefits associated with smoothing tax rates. The intuition is straightforward: if the marginal excess burden of tax increases more than proportionally with tax rates, then efficiency costs are minimized by applying a constant tax rate to yield the required revenue. Under these conditions, the optimal deficit-GDP ratio equals temporary government spending minus temporary tax revenues.

Figure 8. Changes in interest payments tend to be partly offset by changes in primary balances during episodes



Source: OECD calculations.

Monetary easing can assist consolidation…

29. The role of monetary policy in propitiating consolidation is much debated. It is difficult to get debt dynamics under control in circumstances of tight monetary policy and longer-run consolidation would seem to require that monetary policy gradually ease, so as to facilitate growth. Indeed, allowing for the fact that consolidation episodes are more likely to start when monetary policy is tight, Ahrend *et al*. (2006a) find that consolidation efforts are more likely to be pursued, *ceteris paribus*, if they are assisted by an easier monetary stance in the early stages of the episode. Lambertini and Taveres (2005) also find some support for the hypothesis that fiscal consolidation is assisted by a simultaneous easing of monetary policy. However, the link is far from mechanical and there are also instances where monetary easing was followed by aborted consolidation efforts: some researchers have found no evidence of a favourable effect (von Hagen and Strauch 2001).

…but fiscal commitment may be needed…

30. If monetary ease helps consolidation, it must depend on the confidence that consolidation efforts will not be dissipated by using lower interest payments or higher growth-related receipts to raise spending.

However, a government's difficulty in delivering such a commitment leaves the potential for a suboptimal outcome, where the monetary authorities, viewing fiscal consolidation plans as insufficiently credible, refrain from offsetting their potential deflationary impact - or at least not until the effects can be seen, which may be too late. Moving from such a "prisoner's dilemma" to a superior outcome may only be possible through some form of commitment mechanism, since explicit collaboration may be ruled out because of central bank autonomy. The extent to which such a commitment can be made credible would seem to depend on the institutional transparency and accountability with which fiscal policy is implemented (see below).

…and monetary policy should not encourage over-optimism

31. The combination of low interest rates and high growth can be one of the most powerful mechanisms of longer-run consolidation, leading to substantial and sustained reductions in debt ratios (for example in the case of Ireland). A degree of caution is called for, however, insofar as monetary ease can be associated with artificial revenue buoyancy set in train by asset price effects. Ahrend *et al.* (2006b) demonstrate that relatively easy monetary policy may be associated with asset price inflation in housing markets in particular. A common characteristic of expansionary consolidation episodes is the presence of strong exogenous wealth effects (de Mello *et al.* 2004). In some circumstances, this can be a sign of economic resilience which can assist consolidation (Catte *et al.* 2004). However, easy monetary policy can also help to introduce spurious elements into the consolidation process. It can give fiscal policy over-optimistic signals about the strength of potential growth and structural revenues which can severely undermine consolidation. In those circumstances progress towards fiscal consolidation can be more apparent than real. This appears to have been a factor – though by no means the only and not the most important - in several countries in the run-up to the present crisis (OECD 2009).

Structural reform can help longer-run consolidation

Fiscal concessions can propitiate structural reform…

32. In the adoption phase, pressure on public finances can give an impulse to the pursuit of structural reforms, adding a sense of urgency to the reform agenda (OECD 2009). However, reforms driven by immediate fiscal needs may also prove harder to sustain once the fiscal pressure has eased, not least because they are often presented as necessary responses to a financial squeeze rather than desirable changes in structural policy settings (Williamson and Haggard, 1994). Indeed, the process of fiscal consolidation may in itself exhaust the political capital available for introducing other reforms (Duval and Elmeskov, 2005). This suggests that relaxing the pace of fiscal consolidation could be beneficial for structural reform and, conversely, the pursuit of reforms in other areas may make fiscal consolidation more difficult.

33. This is clearly the case in non-crisis situations. If structural reforms are costly in the short run, it often proves necessary to compensate the "losers" of reforms in order to get political support for structural reforms, such as a tougher competition policy and reducing trade protection (Hoj *et al.* 2006). Case study evidence shows that pension reform, particularly, may involve making up-front concessions for longer-term gains, which could show up as a deceleration in the current pace of consolidation (OECD 2009). In addition, perseverance with structural reform requires that it shows results at a relatively early stage, to which fiscal relaxation might contribute. Hoj *et al.* 2006 find that fiscal consolidation (an increase in the primary surplus) is associated with a slowdown of labour market reform, though fiscal consolidation does not seem to affect the political economy of product market reforms (Duval and Elmeskov, 2005). The possibility that reducing the pace of fiscal consolidation may assist reform elsewhere has been explicitly recognised in the revised Stability and Growth Pact (SGP) rules, allowing as an "exceptional circumstance", the budgetary upfront cost of countries' structural reform.

…but structural reform can help long-run consolidation

34. Structural reform benefits fiscal consolidation in the longer run, though it may have immediate costs. Using time-series data for a pool of 21 OECD countries van der Noord and Cournede (2006) find that structural reform is associated with significantly lower public expenditure in the longer run.[20] Inflexible structural policy settings, by contrast, are associated with higher levels of spending on social programmes.

Basing spending cuts on government downsizing and rationalisation helps

Spending cuts are associated with more enduring consolidation

35. A number of arguments and empirical studies suggest that spending restraint (notably with respect to government consumption and transfers) is more likely than tax increases to generate lasting fiscal consolidation (Alesina and Perotti, 1996 and Alesina and Ardagna, 1998). von Hagen *et al.* (2002) also find that the likelihood of sustaining consolidation efforts seems to rise when governments tackle politically sensitive items on the budget such as transfers, subsidies and government wages. Both policy and long-term interest rates are more likely to fall when consolidation relies on current expenditure cuts rather than on tax increases, possibly reflecting the effects of the latter on costs and prices (Ahrend *et al*. 2006). OECD analysis also seems to confirm that substantial consolidation depends on cutting current expenditures (Ahrend 2006a; Guichard *et al.* 2007). In non-euro area countries, where consolidation gains have been most persistent, on average half of the consolidation was due to expenditure cuts, half of which related to cuts in capital expenditures. On the other hand, in euro area countries, on average across all consolidation episodes, three quarters of the adjustment was achieved on the revenue side. The Italian fiscal consolidation during the 1994-97 period provides an example of an immediately successful consolidation but one that was not sustained because expenditure played little part (Balassone *et al*. 2002). The adjustment relied on significant temporary increases in tax revenues and the ratio of primary current outlays to GDP did not change significantly. Its bias towards taxation made the carrying forward of consolidation gains difficult once the goal of EMU entry was achieved and subsequent to entry, the primary surplus started to shrink.

Spending cuts may show commitment…

36. The fact that expenditure cuts tend to have a more lasting consolidation impact than taxes may be related to the positive effects that they can have on overall activity, as noted above, which facilitates the take-up of freed resources by the private sector. However, political economy factors may also be at work. Cuts in current expenditures may show greater commitment and government cohesion, which makes substantial consolidation more feasible – especially in terms of being able to resist relaxation in primary spending as interest costs fall (Alesina and Perotti, 1996). It may also reflect the fact that consolidation measures are more closely targeted on correcting the biases that caused the debt build up in the first place, insofar as successful adjustment tends to be characterised by cuts in transfers and the wage bill (von Hagen and Strauch, 2001). Consolidation via spending cuts tends to involve changes to contractual elements which pay longer-run dividends once new manpower and remuneration practices are locked in. Alternatively, tax measures are often marketed as temporary or one-off expedients (as in the Italian case above).

20. The positive association between structural policies and fiscal consolidation may also reflect consistency in social choices, as well as causality.

…and may be associated with efficiency gains

37. There is an important link between public sector downsizing and the pursuit of efficiency gains which may also make expenditure cuts more sustainable than tax increases. Faced with rigid expenditures and too high taxes, consolidation has come to rely quite heavily on improvements in public sector efficiency to make savings. This is an area which is rather easy to sell to the public, though less easy to implement in practice. Progress towards identifying the factors that make for higher public sector efficiency is so far very partial. However, there are rather large differences in the ratio of outcomes to inputs among OECD economies in those sectors where benchmarking is possible (mainly education and health), offering the possibility of substantial reduction in inputs for given outputs in many cases (Sutherland *et al*. 2007; Joumard *et al.* 2008). The involvement of sub-central tiers of government in the rationalisation process also seems to make consolidations successful, helping in implementing cuts in expenditure and, in particular, the wage bill (Derby *et al.* 2005). It may also be useful because sub-central governments are often better placed to identify cost-effective measures that suit the local electorate.

IV. Embedding fiscal discipline: the role of rules and institutions

Fiscal rules can help to impose discipline

38. Fiscal rules have been central to the search for fiscal discipline. The number of fiscal rules in force has increased continuously over the last fifteen years, especially within the European Union (Ayuso-i-Casala *et al*. 2007). In the early 1990s most numerical fiscal rules were applied at the local or regional level and were designed to prevent spillover effects which may affect aggregate fiscal objectives (Sutherland *et al.* 2006). Latterly, however, fiscal rules applying to the central government sector have increased considerably, the Maastricht Treaty and the SGP having been particular catalysts for their introduction, because of the incentives monetary union gives for national governments to defect from financial market discipline.[21] Budget balance and debt rules are the most widespread, but expenditure rules are the most commonly applied at the central level (Box 3).

21. While targets under the Stability and Convergence Programmes are formulated according to standardized rules, how states achieve those targets depends on national rules relating to budget planning, implementation, evaluation and Parliamentary involvement, which makes for a great deal of heterogeneity in the application of rules (Hallerberg *et.al.* 2001).

Box 3. Use of fiscal rules in consolidation

There is a great deal of variety in the design of fiscal rules, with respect both to the coverage of the rule and process by which it is implemented. The following characteristics apply to EU countries, as reported from questionnaire responses in Ayuso-i-Casala *et al.* 2007.

Coverage of rules

Budget balance and debt rules are most frequent. Fiscal rules can be applied, individually or in combination, to budget deficits, debt, public spending and taxation. About one-third of the numerical rules currently in force in EU countries are budget balance rules and about one-quarter are rules imposing restrictions on borrowing and debt; most of these rules are applied at regional and local levels. A few budget balance rules at the national level are defined in cyclically adjusted terms.

Expenditure rules are most used at the national level. Expenditure rules are applied in a further quarter of EU countries and these mainly apply to the central government and social security sub-sectors. About two-thirds of expenditure rules define ceilings for levels or growth rates in nominal terms, the remaining third being defined in real terms.

Revenue rules are infrequent. No countries apply a rule limiting the tax burden as a percent of GDP; the most commonly used revenue rule, which applies to only a small number of EU economies is one pre-defining principles for the allocation of higher-than-expected revenues.

Process of implementation

Central government rules have a longer time horizon. Rules applied at the regional and local level tend to be mainly annual, while those applying to general and central governments are usually integrated into a multiannual fiscal framework.

The legal status of rules differs. Rules applying to sub-national levels are enshrined in law or the constitution, while rules concerning higher levels of government are based more on political commitments.

Correction and enforcement mechanisms also differ. The majority of local and regional government rules foresee either automatic correction mechanisms or the obligation to adopt measures in cases of non-compliance. Most central government rules do not include *ex ante* defined actions in the case of divergence.

Combinations of budget and expenditure rules may be most effective

39. Because of the heterogeneity of the rules applied their contribution to consolidation is difficult to quantify. However, Guichard *et al*. (2008) find that a combination of cyclically adjusted budget balance and expenditure rules seems to have been most successful in assisting consolidation. Certain episodes stand out and may have a particular weight in this finding. Under the US Budget Enforcement Act (1990-2002), stringent caps on discretionary spending and 'pay-as-you-go' financing restrictions on entitlement outlays helped lock in the revenue surprise of the late 1990s until passage of the tax cut in 2001. (Again, external conditions may help or hinder: in this case lower defence spending may have been a safety valve since non-defence spending continued to grow). And those EU countries which enjoyed some of the largest government debt/GDP declines, such as the Netherlands, Sweden and Finland, have supplemented the SGP deficit rules by national rules, including expenditure ceilings. Using more extensive survey data, among EU countries Ayuso-i-Casala *et al.* (2007) find that higher values of a synthetic fiscal rule index and the coverage (in terms of share) of government sectors by an expenditure rule are robustly associated with a better primary cyclically adjusted balance and with lower primary government expenditure.

40. Certain features of expenditure rules may contribute to their success. A principal quality is that they allow spending ministers/ministries to be held accountable (Atkinson and van den Noord, 2001), and they make the availability of financial resources predictable for policymakers and programme managers, factors that are less clear under deficit rules alone. The presence of a strong enforcement mechanism seems to be most important, both with respect to the independence of the body monitoring the rule and authority responsible for enforcement (Ayuso-i-Casala, *op cit.,* 2007). Some countries have been more involved in this process than others: countries which delegate budget authority to the finance minister to ensure budget norms are complied with use rules less than those which need rules to create cohesion among more independent-minded participating members of a budget process.[22] Indeed, government fragmentation appears to be a significant stimulus to tighter and more encompassing fiscal rules, which are a convenient way of circumventing the need for continuous negotiations among coalition partners (Debrun and Kumar, 2007b).

Commitment and transparency is needed for rules to succeed…

41. Since the effectiveness of fiscal rules cannot be meaningfully evaluated in isolation from the institutional context in which they are applied, some controversy exists over the impact of rules *per se*. Their effectiveness may reflect the preferences of dominant constituencies for a certain course of action (Posen, 1995). It may also depend on the efficiency of other institutional factors as much as the discipline imposed by the rule itself (Wyplosz, 2005; von Hagen *et al.* 2006). There are several cases in which successful rules followed the set-up of new budgeting frameworks and changes to public-sector management that fostered increased accountability and efficiency (New Zealand, Australia, Sweden). More generally, it has been argued that rules *per se* reflect, rather than create, the motivation towards fiscal discipline. Indeed, rules may lack credibility unless they are accompanied by a budget commitment to complete budget transparency (Dubrun and Kumar, 2007). Under complete budget transparency, accountable governments may even use rules and institutions as signalling devices of their fiscal competence: there is then a danger that rules may be as much linked to good performance as good performance to rules. With incomplete transparency, governments may also set up rules as signalling devices, but their impact will not be as great as if there were complete transparency and accountability.

42. A problem with rules that do not reflect commitment is that they may encourage behaviour to circumvent them, which resurrects the original problem of political opportunism. The literature on the subject suggests that the imposition of numerical fiscal rules encourage recourse to fiscal gimmicks, by which governments shift from overt to hidden forms of borrowing, accelerating the collection of future tax liabilities, forcing a public pension schemes to lend to the government at favourable rates, etc. The European experience over the past decade illustrates that such gimmicks come in many different guises, but that when deficit rules or, to a lesser extent, debt thresholds tend to become more binding, recourse to gimmicks is more likely (Koen and van der Noord, 2005). In practice, national administrations will seek, and are likely to find, ways to obfuscate and circumvent fiscal restraints if doing so serves their own interest. Fiscal rules may not prove resilient to political interference.

Excluding capital items from debt limits is problematic

43. Some governments have responded by excluding some capital items from the overall spending subject to debt limits, as is the case with the 'golden rule'. However, many of the problems with opportunistic political behaviour have related, historically, to the budgetary obfuscation entailed in distinguishing between above- and below-the line spending. Accounting conventions usually leave significant room for judgment as to what is investment, which governments may be tempted to take

22. See Hallerberg and von Hagen (1999) for a discussion of the coverage of the two types of system within the EU.

advantage of, especially when fiscal rules bite or threaten to do so. Operational and definitional problems are hard to overcome. The UK golden rule was not proof against the recent debt explosion and if the targets are too loose and make an exception for public investment, policymakers may try to push all kinds of so-called investment projects with dubious financial returns under this heading. In practice, this may make the rule more difficult to monitor as well as easier to circumvent (Fatas, 2005). Germany, which is one of the longest exponents of such as rule has recently abandoned it (see Baumann and Kastrop, 2007 for a discussion of the reasons), while the Netherlands, Belgium and Sweden have all given up the golden rule in the course of time.

Rules need to prevent budget errors in cyclical upturns

44. Of all the problems rules have had to deal with, perhaps the most difficult has been ensuring that revenues generated during cyclical upturns are not used to finance spending or tax give-aways. It was noted above that that has been one of the most important contributors to deficit bias. Balanced budget rules, or rules targeting a particular level of budget balance (such as the early SGP) automatically incorporate the property that cyclically high revenues should be spent. The partial answer is to set budget rules in cyclically adjusted terms, as is now the case with the SGP. But even that may not be proof against the misuse of windfall gains where potential GDP and the structural balance are overestimated, as has occurred recently, for example, in the case of Ireland (OECD, 2009b). Where the budget fails to distinguish between temporary and permanent revenues, the structural budget can be biased towards surplus, though in actual structural deficit.

A cautious approach may help

45. One of the benefits of expenditure rules is that a nominal cap on expenditure growth may act to prevent a pro-cyclical upward drift in spending during upturns, allowing revenue buoyancy to be used to pay down debt (Anderson and Minarik, 2006). However, such an approach is not proof against planning on optimistic assumptions. Avoiding pro-cyclical expenditure drift requires a cautionary approach which excludes volatile revenue sources and ensures that surpluses are saved. In the case of the Netherlands, for example, the cyclically adjusted budget balance and expenditure rules were combined with deliberately cautious macroeconomic assumptions, while incentives and cost-benefit analysis were used for controlling, managing and reorganising public expenditures, underscoring the importance of robustness with respect to shocks and of efficiency considerations in the consolidation process.

The case for independent fiscal institutions

Institutions can reduce deficit bias…

46. The spread of fiscal rules has been associated with an expansion of independent fiscal institutions, the underlying rationale for which is that specific tasks of fiscal policy should be delegated to bodies which are less likely to be affected by distorted incentives (See, for example, Hemming and Kell, 2005). The argument is analogous to that used to establish central bank independence. However, the arguments do not carry over automatically, as fiscal policy objectives are more diverse and impact more widely and discriminatingly on welfare than monetary policy objectives. For this reason, proponents propose handing over only certain budget functions.

47. In the EU, independent fiscal institutions have a long history and perform a variety of functions (European Commission 2009).[23] Using the same data set as Ayuso *et al*, Debrun and Kumar (2007b) find

23. In 2005 13 among the EU-15 had such institutions, some issuing normative recommendations, others fiscal and economic forecasts, though only 4 member states relied on independent fiscal institutions for the budget preparations and medium-term planning.

that there is a strong relationship between the *de jure* influence exerted by non-partisan agencies ("fiscal councils") and their impact on fiscal performance, especially where there are formal guarantees of independence. The presence of fiscal councils appears to contribute both to the emergence of fiscal rules and to their effective enforcement. Again, it is difficult to distinguish between the hypotheses that such institutions are devices to demonstrate government commitment or that they are put in place to ensure discretionary budget discipline. Whatever the case, such institutions tend to exist where here are lower levels of transparency, so they may play an important signaling role, resulting in lower deficit bias.

48. One area in which independent institutions may be of particular value is with respect to pro-cyclical budgeting. Some countries, as noted above, have established revenue rules to deal with the problem, which govern what should be done with revenue surprises. However, while this may help with tax smoothing, public expenditure, once it is set on a medium term course may be difficult to alter when medium-term growth assumptions change. This suggests that some technocratic functions, such as the long-run elasticities of revenue and growth rates of potential could be subjected to independent scrutiny, since a medium-term, input-oriented focus may not in itself be enough to prevent political interference from diverting fiscal stance from a sustainable path. One of the most notable recent examples in this regard is the creation of a Fiscal Policy Council in Sweden (operational since August 2007), to assess whether fiscal policy objectives, including long-run sustainability, the budget target, the expenditure ceiling and the consistency with the cycle are met.

…and can help defend budget surpluses

49. As noted, budget deficit goals have been more ambitious in some OECD economies and some have even aimed to run surpluses. However, this takes the political economy debate into particularly difficult territory. On the one hand, governments have found it especially difficult to convince populations of the need to pre-fund at least some future social service liabilities -- especially pensions – which need to be part of the tax smoothing process when demographics are expected to push up future government spending. Balancing the need to reform pension parameters, such as the retirement age, against that of building up assets to meet future liabilities involves especially difficult choices. Running surpluses in anticipation of future deficit increases, however, creates political economy problems of its own. Surpluses typically imply that the authorities come under pressure to spend more and tax less. Running surpluses to repay debt is unpopular as the electorate usually does not appreciate being taxed to cover the cost of past spending programmes. Running primary surpluses to pre-fund future expenditure commitments can be equally unpopular because the people who may benefit are not necessarily the ones who pay. Surpluses may thus be a political problem, encouraging unsustainable current spending or tax cuts (the inverse of the 'starve the beast' principle noted above).

50. A minority of OECD countries have built Sovereign and Public Pension Reserve Funds (SPFs) to finance at least part of the implicit liabilities stemming from pay-as-you-go public pension schemes. Differences about the desirable degree of prefunding obviously account for much of the actual variation in net indebtedness among OECD economies (Combley and McKissack, 2005).[24] Countries whose revenues are sensitive to terms of trade changes (such as Norway and Mexico) have also found it useful to establish stabilisation funds to deal with the windfall gains. Deliberate pre-funding strategies may be firewalled to some extent (where assets are bought with the contributions to a pension plan and with members having a legal right or contractual claim against these assets.[1] But funds are always fungible to some extent. And political interference may lead to the use of dedicated funds to 'invest' in government bonds during

24. Countries with 'strong' prefunding, have slightly higher expected increases in pensions (around 1 percentage point of GDP between 2000 and 2050) than the OECD average and higher initial tax-to-GDP ratios, consistent with policy motivated by the desire to improve efficiency by tax smoothing.

downturns (OECD 2009b). Particular problems arise where surpluses are unanticipated, and not the result of deliberate decisions to prefund, since these often prove to be the source of pro-cyclical budgeting.

51. Even where there are formal safeguards against spending surpluses, political economy problems can arise, because the way they are invested can lead to political interventionism. Investing surplus assets in privately issued securities could impose large deadweight losses on the economy because it creates incentives for private firms to lobby for public investments and the temptation for political intervention in the allocation of funds could increase. Alternatively, if the assets accumulate with the central bank it may jeopardise its independence, as noted above. An approach is thus needed that avoids the deadweight losses from private lobbying and inefficient investment of surpluses and ensures the diversification of funds across marketable assets.

V. Political economy of fiscal consolidation prior to and in the wake of the financial crisis

Summary of political economy framework prior to the crisis

52. The discussion above leads to a number of conclusions about the political economy background to fiscal policy prior to the financial crisis:

- Politically-induced deficit bias is marked and related to particular characteristics of governance institutions and this may be a partial explanation of differences in budgetary situations in OECD economies. In particular, deficit bias is related to government fragmentation and government stability (electoral uncertainty) which contribute, if left uncorrected, to a political business cycle.

- The private sector is partially aware of the deficit bias (more so in some countries than others) and responds by saving more in anticipation of future budget corrections; however, there is also evidence of informational transparency, which means that deficits only impinge on saving behaviour when they pass a certain threshold. Moreover, there is evidence of self-interested indifference to deficit accumulation, particularly in the defence of unfunded future social benefits.

- Financial markets do exercise discipline on governments from time to time – particularly when deficits become unsustainable - but their influence on government borrowing has often been too benign, contributing to a deceleration in the consolidation process during this century. Central bank autonomy has been an important source of discipline, severing the links between deficits and money finance (until the current crisis), but this has not been able to prevent unusually low interest rates on government debt;

- Consistent with the above, and the fact that fiscal reform is difficult to achieve because of political conflicts, fiscal crises have often been needed to prompt consolidation episodes; however, fiscal crises are not the best times to embark on longer-run budget reforms because they exacerbate distributional conflicts.

- The sustainable level of debt can be defined with various degrees of rigour and this has meant that there has been a substantial variation in the debt positions of OECD countries, ranging from a net surplus to heavy gross indebtedness prior to the crisis. Optimality criteria connected to tax smoothing (the distortions caused when tax rates fluctuate) would suggest that once debt is incurred, a policy to eliminate debt faster than would occur by running a balanced long-run budget would not be welfare enhancing. The legacy of past deficits thus also explains a large amount of the divergences in OECD net government debt positions prior to the financial crisis.

- Ensuring that consolidations are lasting requires some assistance from monetary policy, via the beneficial impact on potential growth; however, monetary policy independence needs to be preserved to ensure the longer run credibility of the consolidation process.

- Fiscal relaxation can help structural reform in the short run, which may impede short-run fiscal consolidation; however, the longer-run effects of structural reform on growth and employment assists fiscal adjustment in the longer run.

- The compositional quality of the instruments of consolidation matters: consolidation based on expenditure cuts are more likely to be associated with enduring consolidations than those based on tax increases; this may be associated with confidence factors and to the fact that expenditure cuts may signal efficiency-enhancing measures. Using taxes to consolidate, on other hand, appears to be detrimental to longer run consolidation gains.

- Fiscal rules may help overcome some of the problems of fiscal bias, but the extent to which they impact *per se* on consolidation is debateable. In many cases they are likely to be used as signalling devices of sound fiscal governance rather than constraints on discretionary action. Rules can also be used as 'smokescreen' devices and can be circumvented, via creative accounting and, in the case of the golden rule, definition of consumption as investment. Preventing circumvention requires greater transparency and golden rules need to be replaced by more all embracing rules. Rules exempting structural reform costs may also be misused.

- Institutional quality matters. There has been an expansion of independent fiscal institutions in recent years, designed to compensate for in-built deficit bias. These may be particularly helpful in controlling the tendency for unexpected revenue buoyancy to be spent.

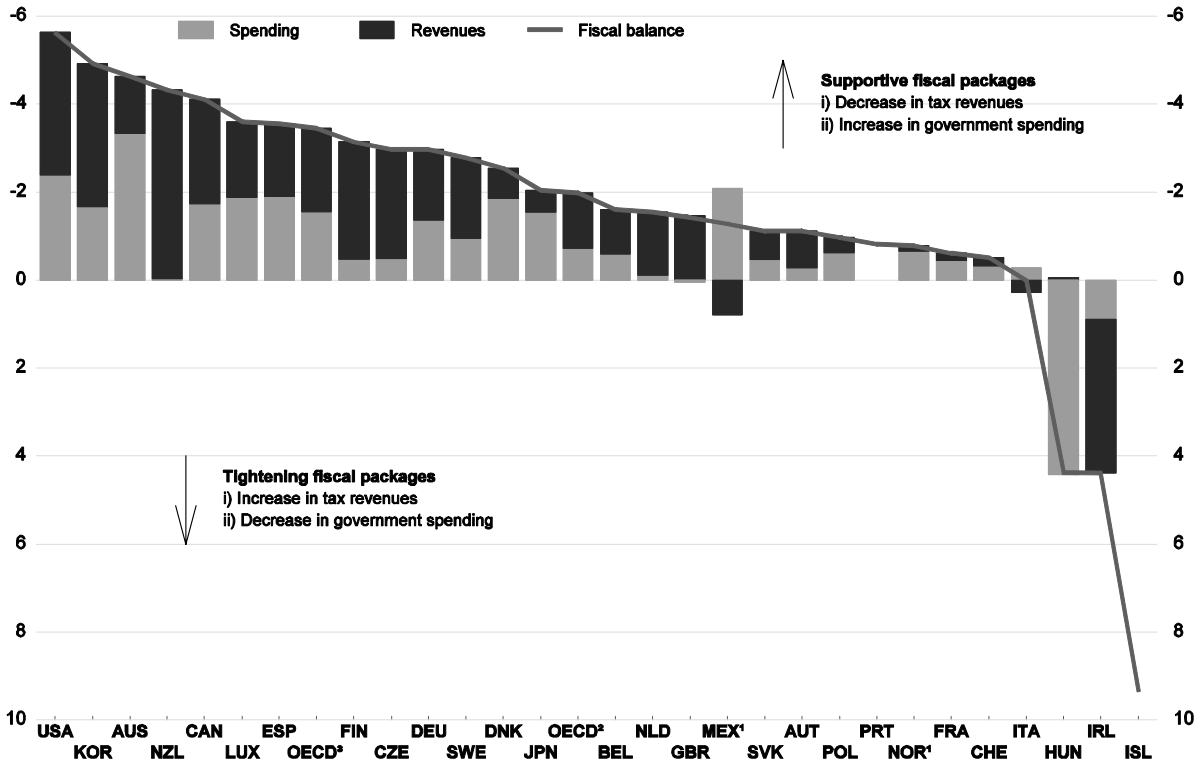
What has changed with the financial crisis?

53. With the financial crisis and subsequent recession OECD countries find themselves in a position where the consolidation lessons of the past need to be reappraised and/or adapted to new circumstances. Perhaps the most notable departure from the previous orthodoxy has been the espousal of sizeable discretionary fiscal stimuli as a response to the crisis (Figure 9). This is to be interpreted as a response to the severity of the crisis, but it creates challenges in terms of its eventual withdrawal which has proved problematic in the past. The emphasis has been on 'timely and temporary' interventions, but where spending has continued on its pre-crisis path but potential output has declined, the structural spending ratio will have risen and structural deficits increased. In several countries debt trends are such that even the mildest sustainability criterion will not be achieved without discretionary action and future sustainability crises cannot be ruled out. Experience shows that expenditure cuts are the most viable means of medium term consolidation, allied with measures to improve public sector efficiency, but implementation will involve severe problems of political economy. The size of the necessary future fiscal adjustment will exceed that of past consolidation episodes for some economies.

54. A number of factors will aggravate the difficulty of consolidating. Interest rates on government debt are currently low and if they were to stay low while growth picked up, debt dynamics would be favourable. But monetary policy is more likely to have to turn towards restraint than to be available to assist consolidation, both globally and, especially, in those countries which have experienced substantial quantitative easing. At the same time, the synchronisation of the consolidation after the crisis will complicate its implementation. Usually, smaller open economies face fewer costs in consolidating because of the relatively high import-content of supplies, but this benign situation will not hold where the OECD area at large is consolidating. That may not augur well for the peer pressure on which the momentum to

consolidate will depend, since countries could see delayed adjustment in its trading partners as being to their own advantage.

Figure 9. Fiscal responses to the downturn



55. Fiscal rules and institutions will need to be reappraised. Against this background of the use of discretionary fiscal policy once more as a stabilising device, the possibilities for opportunistic fiscal behaviour would seem to have risen, while the difficulties of maintaining transparency have increased. The role for fiscal rules and autonomous fiscal bodies would thus seem set to expand. However, the crisis itself has called the operation of rules into question. In some cases the political urgency for discretionary action has led to their effective abandonment. To some this would appear to be a vindication of the view that there will always be circumstances where scrapping rules will be preferable to enforcing them, creating a serious credibility problem which will affect future public attitudes to rules. Before the crisis, fiscal rules also failed, in some cases, both to prevent the over-estimation of structural budget balances and to prevent these being spent. In terms of political economy, an institutional means will need to be found whereby revenue overshoots are saved rather than spent. Some country experiences have been better than others and a cautionary and prudent approach recommends itself.

BIBLIOGRAPHY

Ahrend R., P. Catte and R. Price (2006a), "Interactions Between Monetary and Fiscal Policy: How Monetary Conditions Affect Fiscal Consolidation", *OECD Economics Department Working Papers*, No. 521, Paris.

Ahrend R., P. Catte and R. Price (2006b), "Factors Behind Low Long Term Interest Rates", *OECD Economics Department Working Papers*, No. 490, Paris.

Alesina, A. and S. Ardagna (1998), "Tales of Fiscal Adjustment", *CEPR Economic Policy*, Vol. 13, Issue 27.

Alesina, A., S. Ardagna and F. Trebbi (2006), "Who Adjusts and When? On the Political Economy of Stabilisations", *IMF Staff Papers,* 53.

Alesina, A. and R. Perotti (1995), "The Political Economy of Budget Deficits", *IMF Staff Papers,* Washington, International Monetary Fund, March.

Alesina, A. and R. Perotti (1996), "Fiscal Adjustments in OECD Countries: Composition and Macroeconomic Effects", *NBER Working Paper*, No. 5730.

Alesina, A, and G. Tabellini (1987), "A Positive Theory of Fiscal Deficit and Government Debt in a Democracy", *NBER Working Paper No. 2308*, Cambridge, Mass.

Alt, J. and D. Lassen (2006), "Fiscal Transparency, Political Parties and Debt in OECD Countries", *European Economic Review.*

Anderson, B. and J. Minarik (2007), "Design Choices for Fiscal Policy Rules", in *Fiscal Policy: Current Issues and Challenges*, Banca d'Italia.

Atkinson, P. and P. van den Noord (2001), "Managing Public Expenditure: Some Emerging Policy Issues and a Framework for Analysis", *OECD Economics Department Working Papers*, No. 285, Paris.

Auerbach, A.J (2009), "Implementing the New Fiscal Activism", *NBER Working Paper No. 14725*, Cambridge, Mass.

Ayuso-i-Casals, J, D.G. Hernandez, L. Moulin and A. Turrini (2007), "Beyond the SGP – Features and Effects of EU National Level Fiscal Rules", *Fiscal Policy: Current Issues and Challenges*, Banca d'Italia.

Balassone, F, D. Franco and Giordano (2004), "Market-Induced Fiscal Discipline: is there a Fall-Back Solution for Rule Failure", in *Public Debt,* Banca d'Italia.

Balassone, F, D. Franco, S. Momigliano and D. Monacell (2002), "Italy: Fiscal Consolidation and its Legacy", *The Impact of Fiscal Policy*, Banca d'Ítalia.

Barro R. (1974), "Are Government Bonds Net Wealth?", *Journal of Political Economy*, Vol. 82.

Barro, R. (1979), "On the Determination of the Public Debt", *Journal of Political Economy*, University of Chicago Press, Vol. 87(5), October.

Barro, R. (1989), "The Ricardian Approach to Budget Deficits," *Journal of Economic Perspectives*, Vol. 3.

Baumann, E., and C. Kastrop, "A New Fiscal Rule for Germany", in *Fiscal Policy: Current Issues and Challenges*, Banca d'Italia.

Berben, R.P. and T. Brosens (2007), "The Impact of Government Debt on Private Consumption in OECD Countries", *Economics Letters*, Vol. 94, Is. 2, February, pp. 220-225.

Bernanke, B.S. (2005), "The Global Saving Glut and the U.S. Current Account Deficit", *Homer Jones Lecture*, St. Louis, Missouri, 14 April.

Blanchard, O., J.C. Chouraqui, R.P. Hagemann, and N. Sartor (1990), "The Sustainability of Fiscal Policy: New Answers to an Old Question", *OECD Economic Studies*, No. 15, Paris.

Bovenberg, A.L., J.J.M. Kremers and P.R. Masson (1991), "Economic and Monetary Union in Europe and Constraints on National Budgetary Policies", *IMF Staff Papers*, Vol. 38, No.2.

Buchanan, J and R. Wagner (1977), *Democracy in Deficit*, New York: Academic Press.

Buti, M. and P. van den Noord (2004), "Fiscal Discretion and Elections in the Early Years of EMU", *Journal of Common Market Studies,* Vol. 42, No. 4.

Catte, P., N. Girouard, R. Price and C. Andre (2004), "Housing Markets, Wealth and the Business Cycle", *OECD Economics Department Working Papers, No. 394*, Paris.

Combley, B and A. McKissack (2005), "Expenditure Growth, Fiscal Sustainability and Pre-Funding Strategies in OECD Countries, *Public Expenditure*, Banca d'Italia.

Cotis, J.P., J. Coppel and L. de Mello (2004), "Is the U.S. Prone to Over-Consumption?", presented at the Federal Reserve Bank of Boston Economic Conference on the Macroeconomics of Fiscal Policy, Chatham, Massachusetts, June 14-16.

Cournede, B (2007), "The Political Economy of Delaying Fiscal Consolidation", *Economics Department Working Papers, No. 548*, Paris.

Cournède B. and F. Gonand (2006), "Restoring Fiscal Sustainability in the Euro Area: Raise Taxes or Curb Spending?", *OECD Economics Department Working Papers*, No. 520, Paris.

Derby, J., A. Muscatelli and G. Roy (2005), "Fiscal Consolidation and Decentralisation: A Tale of Two Tiers", *Fiscal Studies*, Vol. 26, No. 2.

Debrun, X. and M.S. Kumar (2007), "The Discipline-Enhancing Role of Fiscal Institutions: Theory and Empirical Evidence", *IMF Working Paper WP/07/171*, IMF, Washington.

Debrun, X. and M.S. Kumar (2007b), "Fiscal Rules, Fiscal Councils and All That: Commitment Devices, Signalling Tools or Smokescreens?", *Fiscal Policy: Current Issues and Challenges*, Banca d'Italia.

Duval, R. and J. Elmeskov (2005), "The Effects of EMU on Structural reform in Labour and Product Markets", *OECD Economics Department Working Papers*, No. 438, Paris.

Eslava, M. (2006), "*The Political Economy of Fiscal Policy: a Survey*", Inter-American Development Bank, Washington DC.

European Commission (2009), "*Public Finances in EMU'.*

Fabrizio, F. and A. Mody (2007), "The Value and Reform of Budget Institutions", *Fiscal Policy: Current Issues and Challenges*, Banca d'Italia.

Fatás, A. (2005), "Is There a Case For Sophisticated Balanced-Budget Rules?", *OECD Economics Department Working Papers,* No. 466, Paris.

Fisher, S. (1982), "Seignorage and the Case for National Money", *Journal of Political Economy*, Vol. 90, No. 21.

Gagnon, J.E. (2005), "Currency Crashes and Bond Yields in Industrial Countries", Board of Governors of the Federal Reserve System, *International Finance Discussion Papers*, No. 837, August.

Giavazzi, F.,T. Jappelli and M. Pagano (2000), "Searching for Non-Linear Effects of Fiscal Policy: Evidence from Industrial and Developing Countries", *European Economic Review*, Vol. 44, No. 7.

Girouard, N. and R. Price (2004), "Asset Price Cycles, One-Off Factors and Structural Budget Balances", *OECD Economics Department Working Papers*, No. 391, Paris.

Giudice, G, A. Turini and L. Veld (2004), "Non-Keynsian Fiscal Consolidation in the EU? Ex Post Evidence and *Ex Ante* Analysis", *CEPR Discussion Paper* 4388.

Gokhale, J. (2002), "US Fiscal Policy in an Era of Federal Budget Surpluses", *The Impact of Fiscal Policy*, Banca d'Ítalia.

Girouard, N. and R. Price (2004), "Asset Price Cycles, 'One-Off' Factors and Structural Budget Balances", *OECD Economics Department Working Papers,* No. 391, Paris.

Guichard, S, M. Kennedy, E. Wurzel and C. Andre (2007), "What Promotes Fiscal Consolidation?: OECD Country experiences", *OECD Economics Department Working Paper*s, No. 553.

von Hagen, J., A. Hugues Hallett and R. Strauch (2002), "Budgetary Consolidation in EMU", *European Economy - Economic Papers*, No. 148.

von Hagen, J. (2006), "Fiscal Rules and Fiscal Performance in the EU and Japan", SFB/TR 15 Governance and the Efficiency of Economic Systems, Free University of Berlin, Humboldt University of Berlin, University of Bonn, University of Mannheim, University of Munich, *Discussion Papers Series*, No. 147.

von Hagen, J. and G. Wolff (2006), "What do Deficits Tell us About Debt? Empirical Evidence on Creative Accounting with Fiscal Rules in the EU", SFB/TR 15 Governance and the Efficiency of Economic Systems, Free University of Berlin, Humboldt University of Berlin, University of Bonn, University of Mannheim, University of Munich, *Discussion Papers Series*, No. 148.

von Hagen, J. and I.J. Harden (1994), "National Budget Processes and Fiscal Performance", *European Economy: Reports and Studies*, No. 3.

Von Hagen, J. and R. Strauch (2001), "Fiscal Consolidations: Quality, Economic Conditions and Success", *Public Choice,* Vol. 109, No. 3.

Hallerberg, M., R. Strauch and J. von Hagen (2006), "The Design of Fiscal Rules and Forms of Governance in European Union Countries", *GESY Discussion Paper* (Governance and the Efficiency of Economic Systems), No. 150, Sönderforschungsbereich Transregio 15. A co-operation of FU Berlin, HU Berlin, Universität Bonn, Universität Mannheim. ZEW Mannheim, LMU München, Germany.

Hallerberg, M., R. Strauch and J. von Hagen (2001), "The Use and Effectiveness of Budgetary Rules and Norms in EU Member States", *Report prepared for the Dutch Ministry of Finance*, Institute of European Integration Studies.

Hallerger, M. and J. von Hagen (1999), "Electoral Institutions, Cabinet Negotiations and Budget Deficits within the European Union", in J. Poterba and J. von Hagen (Eds.), *Fiscal Institutions and Fiscal Performance,* University of Chicago.

Hemming, R. and M. Kell (2007), "Promoting Fiscal Responsibility: Transparency, Rules and Independent Fiscal Authorities", *Fiscal Policy: Current Issues and Challenges*, Banca d'Italia.

Hercowitz, Z and M. Strawczynski (2005), "Government Spending Adjustment: the OECD Since the Nineties", *Public Expenditure*, Banca d'Italia.

Hibbs, D.A. (1977), "Political Parties and Macroeconomic Policy", *American Political Science Review* 71.

Høj, J., V. Galasso, G. Nicoletti and T. Dang (2006), "The Political Economy of Structural Reform: Empirical Evidence from OECD Countries", *OECD Economics Department Working Papers* No. 501, Paris.

Joumard, I., P.-M. Kongsrud, Y-S. Nam and R. Price (2004), "Enhancing the Effectiveness of Public Spending: Experience in OECD Countries", *OECD Economics Department Working Papers*, No. 304, Paris.

Joumard, I., C. Andre, C. Nicq and O. Chantal (2008), "Health Status Determinants: Lifestyle, Environment, Healthcare Resources and Efficiency", *Economics Department Working Papers*, No. 627. Paris.

Kinari, Y and M. Shibamoto (2007), "Efficacy of Fiscal Policy in Japan: Keynesian and Non-Keynesian Effects on Aggregate Demand", https://www.researchgate.net/publication/5160365.

Koen, V. and P. van den Noord (2005), "Fiscal Gimmickry in Europe: One-Off Measures And Creative Accounting", *Economics Department Working Papers*, No. 417, Paris.

Kumar, M.S, D. Leigh and A. Plekhanov (2007), "Fiscal Adjustments: Determinants and Macroeconomic Consequences", in *Fiscal Policy: Current Issues and Challenges*, Banca d'Italia.

Lambertini, L. and J. Tavares (2005), "Exchange Rates and Fiscal Adjustments: Evidence from the OECD and Implications for the EMU", *Contributions to Macroeconomics*, Vol. 5, No. 1.

Laubach, T. (2004), "The Effects of Budget Deficits on Interest Rates: A Review of Empirical Results", *Public Debt*, Banca d'Italia.

de Mello, L. P.M. Kongsrud and R. Price (2004), "Saving Behaviour and the Effectiveness of Fiscal Policy", *Economics Department Working Papers,* No. 397, Paris.

Middleton, R. (1997), "Whatever Happened to the Laffer Curve", unpublished manuscript.

Milesi-Ferretti, GM, R. Perotti and M. Rostagno (2002), "Electoral Systems and Public Spending", *Quarterly Journal of Economics*, Vol. 117.

Nicoletti, G. (1992), "Is Tax Discounting Stable over Time?", *Oxford Bulletin of Economics and Statistics*, Vol. 54, No. 2.

Van den Noord, P. and B. Cournède, "Short-Term Pain for Long-Term Gain: The Impact of Structural Reform on Fiscal Outcomes in EMU".

Nordhaus, W. (1975), "The Political Business Cycle", *Review of Economic Studies* No. 42.

OECD (1982), "Budget Financing and Monetary Control", *OECD Monetary Studies Series*, Paris.

OECD (1983), "Public Sector Deficits: Problems and Policy Issues", *OECD Economic Outlook, Occasional Studies*, Paris.

OECD (1989), "The Public Sector: Restoring the Balance", *Economies in Transition: Structural Adjustment in OECD Countries*, Paris.

OECD (2002), "OECD Best Practices on Budget Transparency", *OECD Journal on Budgeting*, Vol. I.

OECD (2003), "Fiscal Stance over the Cycle: Institutions and Budget Constraints", *OECD Economic Outlook,* No. 74, December.

OECD (2009), *The Political Economy of Reform: Lessons from Pensions, Product Markets and Labour Markets in Ten OECD Countries*, Paris.

OECD (2009b), *OECD Economic Survey of Ireland*, Paris.

OECD (2009c), "Tax Expenditures and Base Broadening", CTPA/CFA/WP2(2009)5, 11 May.

Persson, T. and G. Tabellini (2003), "Do Electoral Cycles Differ Across Political Systems?", Working Paper No. 232, University of Bocconi.

Romer, C.D, and D.H. Romer (2007), "Do Tax Cuts Starve the Beast? The Effect of Tax Changes on Government Spending", University of California, Berkeley, October.

Sutherland, D., R. Price and I. Joumard (2005), "Fiscal Rules for Sub-Central Governemnets: Design and Impact", *OECD Economics Department Working Papers*, No. 465, Paris.

Sutherland, D. and R. Price (2007), "Linkages Between Performance and Institutions in the Primary and Secondary Education Sector", *OECD Economics Department Working Papers*, No. 558, Paris.

Tsebelis, G. (1999), "Veto Players and Law Production in Parliamentary Democracies: An Empirical Analysis", *American Political Science Review.*

Williamson, J. and S. Haggard (1994), "The Political Conditions for Economic Reform", in J. Williamson (Ed.), *The Political Economy of Policy Reform*, Institute for International Economics.

Wyplosz, C. (2005), "Fiscal Policy: Institutions versus Rules", *National Institute Economic Review*, No. 191.

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