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The Debate on Expansionary Fiscal Consolidation: How Robust is the Evidence?

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Abstract

This paper critically examines the key empirical evidence used to support the fiscal consolidation argument, complemented by a brief assessment of the limitations of the analytical foundation of the growth promoting benefits of the fiscal consolidation thesis. It also reviews the evidence on the debt-growth relationship at some length. It finds that the negative relationship between debt and GDP growth is influenced by outliers or exceptionally high debt-GDP ratios. It also points out that the composition of public debt matters. Additionally, the debt-GDP relationship appears to be non-linear — positive first and turning to negative, but there is considerable variation in the estimated turning or 'tipping' point, which is not helpful as a policy guide. Historical evidence does not lend support to the concerns that the current situation is likely to cause rapid upward spiraling of public indebtedness. Finally, the argument that fiscal consolidation is possible without adversely affecting growth is not based on robust empirical evidence. This conclusion is reinforced by a succinct overview of some country-specific experiences (Denmark, Ireland and United States).

JEL Codes: N14, H63, E31, E62, E63, E65

Keywords

Debt; Europe; fiscal consolidation; growth.

Introduction

The 2007–2009 global economic and financial crisis led to a sharp increase in public debt across various parts of the world, especially in advanced countries. This has heightened concerns about fiscal sustainability and its broader economic and financial market consequences. In particular, many believe that public debt

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is starting to hit levels at which it might slow down economic growth. These concerns have already triggered further downgrading of the sovereign debt ratings of several developed economies, including Greece, Ireland, Japan, Portugal and Spain. One rating agency, Standard & Poor's, has recently presented a negative outlook for the debt burden of France, and downgraded its triple A credit rating, following its downgrading of the United States in 2011. On 13 February, 2012, Moody's Investor Service downgraded its credit ratings for Italy, Portugal and Spain, while France, Britain and Austria kept their top ratings but had their outlooks dropped to 'negative' from 'stable'.

The consensus among the major countries represented in the Group of 20 (G20) in the wake of the current global economic and financial crisis that propelled them to announce coordinated stimulus packages quickly disappeared with the first signs of a tepid recovery. Following the 2010 Toronto Summit of the G20 leaders, many countries, especially in Europe, have committed to fiscal consolidation in response to these concerns in the form of time-bound and targeted reductions in the structural budget deficit. For example, fiscal austerity measures in the United Kingdom aim to cut the deficit by an estimated 8 percentage points of GDP by 2015.[1] In France, the medium-term fiscal plan is to reduce the deficit to 3 per cent of GDP by 2013 through a mix of revenue and expenditure measures as well as structural reforms. Fiscal consolidation in Germany started in 2011. The Stability and Growth Pact (SGP) of Germany requires lowering the general government deficit to 3 per cent of GDP by 2013; and the constitutional rule mandates a 0.35 structural deficit at the federal level by 2016 (to be achieved in roughly equal annual steps) and balanced structural budgets at the state level by 2020.[2] Canada's fiscal consolidation plan projects a return to a small deficit of -0.1 per cent of GDP by 2014–15. The winding-down of the Action Plan would cut the federal budget deficit in half by 2011–12.

The policy discourse, most notably in the rich nations, is that governments must now engage in fiscal consolidation and bring back public finances to sustainable levels. As the *Economist* (2010a) observes: 'Across much of the rich world an era of budgetary austerity beckons'. But signs of budgetary austerity also seem to be emerging in a sizeable number of low and middle-income countries. One study by UNICEF (2010) finds that, in a sample of 86 low and middle income countries, about 40 per cent are engaging in reductions in public expenditure in 2010–2011 relative to 2008–2009.The average projected spending cuts are around 2.6 per cent of GDP. An OXFAM study (Kyrili and Matthew 2010) shows that the global economic and financial crisis of 2007–2009 has created a huge 'fiscal hole' in the 56 low-income countries (LICs) by reducing their budget revenues by $65bn over the 2009–2010 period. As a result of the fiscal hole, most LICs are cutting or at least restraining public expenditure, especially on education and social protection.

The International Monetary Fund's *Fiscal Monitor* (IMF 2010c) highlighted the need for major fiscal consolidation over the years ahead. The monitor stated that though the increase in budget deficits played a key role in staving off an economic catastrophe, as economic conditions improve, the attention of policymakers should now turn to ensuring that doubts about fiscal solvency do not

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become the cause of a new loss of confidence. Moreover, an equally important risk to be averted is that the accumulated public debt, even if does not result in overt debt crises, becomes a burden that slows down long-term potential growth.

This paper critically examines the key empirical evidence that is assembled to support the fiscal consolidation argument. This examination is complemented by a brief assessment of the limitations of the analytical foundation of the growth promoting benefits of the fiscal consolidation thesis. We point out that the composition of public debt matters, especially if it is used to finance growth-promoting public investment. We also review the evidence on the debt-growth relationship at some length. We find that the negative relationship between debt and GDP growth is influenced by outliers or exceptionally high debt-GDP ratios. Furthermore, when there is a relationship, it appears to be non-linear — positive first and turning to negative at some point, but there is considerable variation in the estimated turning or 'tipping' point, which is not helpful as a policy guide. Historical evidence does not lend support to the concerns that the current situation is likely to cause rapid upward spiraling of public indebtedness that will push up interest rates (as well as risk premium) on government securities, thereby putting greater pressure on deficits to widen and on public debt to increase. Finally, we also find that the argument that fiscal consolidation is possible without adversely affecting growth is not based on robust empirical evidence. This conclusion is reinforced by a succinct overview of some country-specific experiences (Denmark, Ireland and the United States).

Debt-Growth Relationship

The IMF's *Fiscal Monitor* (IMF 2010c) that strongly advocates fiscal consolidation acknowledges that to date, there are only a few studies that assess the magnitude and significance of potentially adverse effects of high public debt on growth. Thus, the IMF attempted to fill this gap by undertaking empirical analysis of the relationship between initial government debt and subsequent economic growth in a panel of advanced and emerging economies for the period 1970–2007.[3] It involved examination of nonlinearities and threshold levels beyond which debt begins to have an adverse effect on growth. It also did a growth accounting exercise to explore the channels through which government debt may influence growth. The analysis paid particular attention to a variety of estimation issues — such as 'reverse causality' or the presence of a third variable affecting both growth and debt — that can have an important bearing on the estimation. The study also undertook various robustness checks. Therefore, the IMF study seeks to provide a solid empirical foundation for fiscal consolidation.

Yet a closer look at the scatter plot (IMF 2010c: 63 Figure 1) reveals that the claim of a negative relationship between growth and initial debt-GDP ratio is influenced by a few outliers, characterised by either a debt-GDP ratio well above 100 per cent or very high per capita GDP growth exceeding 8 per cent. This is not surprising, given the insignificant existence of any relationship between the debt-GDP ratio and macroeconomic instability, as a closer look at Figure 4 (IMF 2010c: 67) exposes.

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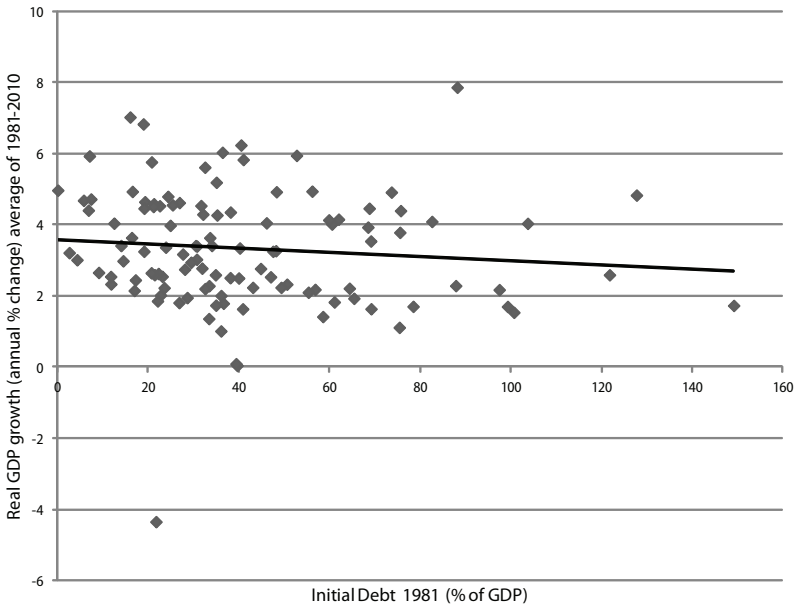
As part of our critical examination of the pertinent evidence on public debt and growth, we construct a simple scatter plot between initial debt-to-GDP ratios and subsequent years of growth for the 1981–2010 period using a large sample of countries. As can be seen from Figure 1, the slope of the debt-growth 'line of best fit' is rather shallow as it was found to be in the IMF's *Fiscal Monitor*. To reinforce this point we construct bar diagrams with median debt-GDP ratios and median growth rates for different sub-periods in Figure 2. As can be seen, despite the major differences in median debt-GDP ratio, the differences in median growth rates are not significant or pronounced. This is also evident from the coefficient of variation (–0.34) for median growth versus 0.71 for median debt-GDP ratio. Interestingly, the median growth rate of countries with a debt-GDP ratio between 90 and 120 per cent increased from around 2 per cent during 1981–1985 to around 4 per cent during 2006–2009. After a median growth rate of about 2 per cent until 1995, the median growth continued to rise despite a high median debt-GDP ratio.

Figure 1: Initial Debt to GDP ratio (1981) and subsequent real GDP growth (annual % change) average of 1981–2010



Authors' calculations based on IMF's Historical Debt Database. The observations pertain to countries.

It seems that the claimed negative debt-growth relationship is due to extreme values or outliers. To substantiate this point, we use this sample to identify countries that have the highest median debt-to-GDP ratio (approximately 171 per cent) for the 1981–2009 period and contrast them with countries that have the lowest median debt-to-GDP ratio (approximately 19 per cent) by focusing on median growth rates for the two groups. As can be seen in Figure 3, a more

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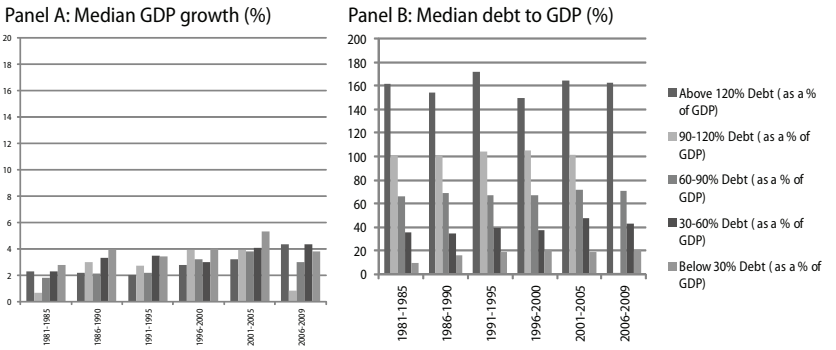
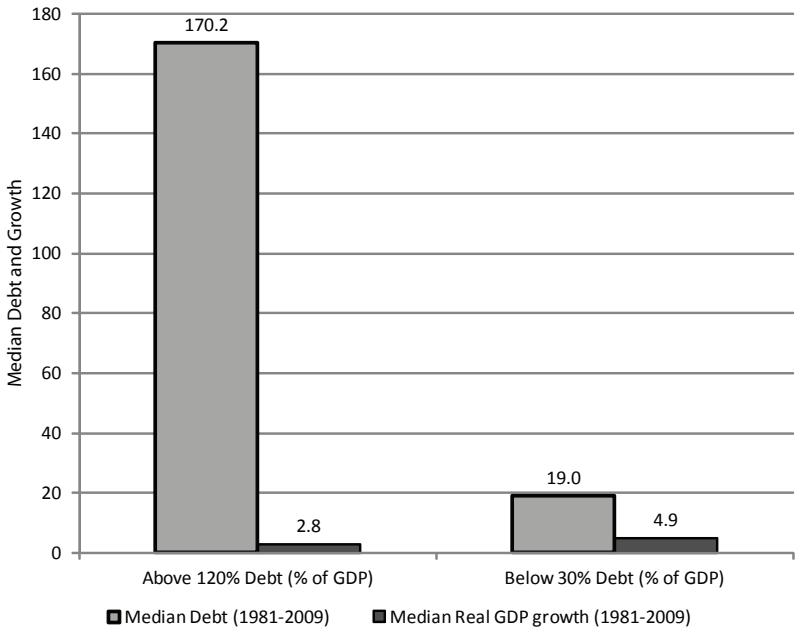
than nine-fold increase in the median debt-to-GDP ratios is associated with a 2.1 percentage point decline in the growth rate.[4] This is, of course, an extreme scenario and unlikely to represent the norm in the global evolution of public indebtedness. Indeed, the dominant trend since the mid-1990s is that the majority of countries lie in the 'moderate' (30 to 60 per cent) and 'low' debt categories (less than 30 per cent) — see Figure 4. This trend is worth bearing in mind as this can be easily forgotten in the current alarmist discourse over rising public indebtedness in a few countries.

Figure 2: Median growth and Debt-GDP ratios, 1981–2009



Authors' calculations based on IMF's Historical Debt Database

Figure 3: Highest and lowest median initial Debt-GDP Ratios and median GDP growth, 1981–2009



Authors' calculations based on IMF's Historical Debt Database

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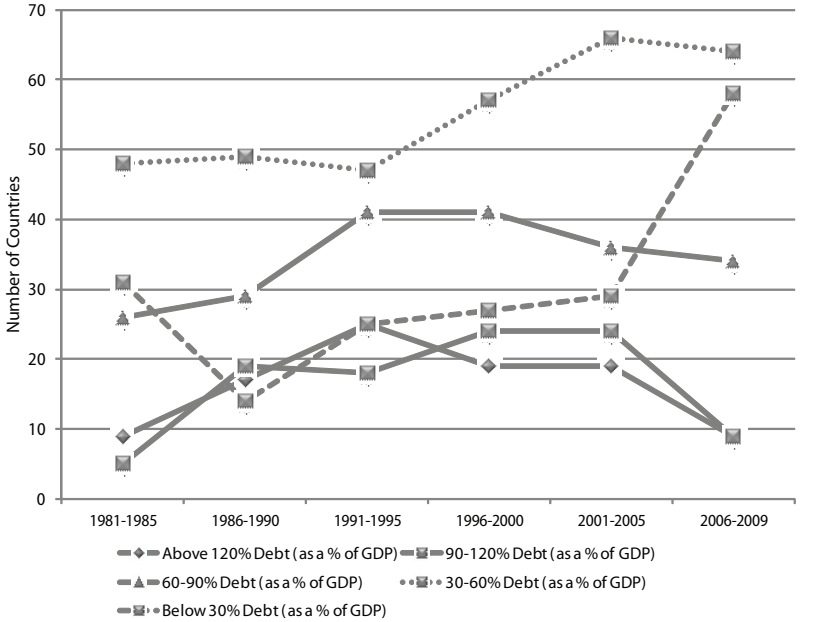
Figure 4: Debt trend — number of countries with different debt levels, 1981–2009



Authors' calculations using the IMF's historical debt database

The absence of a clear negative debt-growth relationship raises considerable doubts about the nature of the theoretical and empirical foundations of those who espouse the cause of fiscal austerity. The 'consensus' view of mainstream macroeconomics — derived from synthesis of 'new classical' and 'new Keynesian' approaches — is that there is no role for counter-cyclical fiscal policy. The latter should focus primarily on debt and deficit management, while monetary policy deals with 'business cycle stabilisation and inflation control' (Kirsanova et al. 2009: 482). Even its proponents argue that this works well in the case of modest demand shocks, but when monetary policy is constrained (such as a liquidity trap — entailing the so-called 'zero bound' on nominal interest rate — or where there is a currency union) in the face of large demand shocks (which characterizes the Great Recession of 2008–2009), then focusing on this consensus assignment of macroeconomic policy instruments can turn out to be welfare-reducing (Blanchard et al. 2010; Wren-Smith 2012).

Concerns about the effectiveness of fiscal policy — and the need to focus on debt/deficit management — can also be rationalised in terms of three views: (a) 'crowding out' (b) 'Ricardian equivalence' and (c) 'market confidence'. The crowding out hypothesis, i.e., government borrowing drives up interest rates and adversely affects private investment, ignores the consequences (e.g. low profitability, bankruptcies etc.) of a depressed economy in the absence of increased government spending. It also ignores the productivity enhancing impact of government spending on infrastructure, education, and research and development

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(R & D) — a point taken up further later. In any case, even in a simple IS-LM model, 'full' crowding out only takes place in the special case when the LM curve is vertical. As long IS and LM curves have normal shapes, there will be 'partial' crowding out which means that a fiscal expansion will raise aggregate demand and output and facilitate the move towards 'full employment'.[5]

The Ricardian equivalence argument that individuals have to save more in anticipation of higher future tax to redeem public debt is spurious as revenues rise with an expanding economy.[6] What needs to be noted is that Ricardian equivalence applies to tax cuts not to changes in government expenditure. As Wren-Smith (2011: R8) has pointed out, in a Ricardian economy, '… fiscal expansion that involves cutting lump sum taxes would have no impact on demand, because the tax cut would be saved. However, exactly the same model implies that a temporary increase in government spending will increase demand.'

It is also a myth that government expenditure must always be financed by raising tax, so that government budget remains in balance. As Abba Lerner pointed out more than half a century ago, 'taxing is *never* to be undertaken merely because the government needs to make money payment' (Lerner 1943: 40, emphasis in original). Just as government expenditure, taxes must also be judged from their impact on the economy.

It is also not necessary that governments always have to borrow from the public. It is much easier for governments to increase spending capacity by printing money (borrowing from the central bank). The immediate financial implications of expansionary fiscal policy action when the central bank uses interest rate — in a world of 'endogenous money' — is to add to the cash reserves of the private sector banks in which the government checks are deposited. This in turn increases (net) liquidity in the cash market where the central bank discount rate is established and defended, assuming that the central bank did not implement offsetting market operations (buying and selling its own or government short-term securities, or associated derivatives such as re-purchase agreements). Under these circumstances the actual central bank discount rate should tend to decrease, causing downward pressure on retail interest rates.[7] This conclusion is contrary to the conventional belief, and therefore should encourage instead of crowding out private investment.

The immediate objection to the option of borrowing from the central bank comes from the supposed link between printing money and inflation. However, this fear again arises from the lack of appreciation of the root cause of the problem, i.e. insufficient spending. Printing money in a depressed economy should not cause inflation. The US Federal Reserve Bank has gone into top gear, called quantitative easing, since the onset of the Great Recession. Instead of accelerating, the inflation rate remains well below the 'desired' rate of 2–3 per cent. Japan, too, has been facing deflationary pressure despite significant easing of monetary policy since 1995. After reviewing a mass of evidence, Bruno and Easterly (1998: 3) arrived at the following answer to the question 'Is inflation harmful to growth? The ratio of fervent beliefs to tangible evidence seems unusually high on this topic'. Likewise, there is scant evidence supporting the negative impact of fiscal expansion either due to crowding out or Ricardian equivalence. After surveying

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a large body of empirical literature an IMF study, Hemming, Kell and Mahfouz (2002: 36) concluded that 'estimates of fiscal multipliers are overwhelmingly positive … there is little evidence of direct crowding out through interest rates and exchange rate. Nor does full Ricardian equivalence or a significant partial Ricardian offset get much support from the evidence'.

Finally, the least theoretically grounded but most influential view is that fiscal austerity now is necessary because it will instill 'market confidence' that lies at the core of private sector spending decisions. As Jean-Claude Tritchet, the former President of the European Central Bank put it during a media interview: 'It is an error to think that fiscal austerity is a threat to growth and job creation. At present, a major problem is the lack of confidence on the part of households, firms, savers and investors who feel that fiscal policies are not sound and sustainable' (ECB 2010). As Nobel Laureate Paul Krugman has often lamented, this represents an undue faith in the 'confidence fairy' to spur growth. Borrowing costs are at a historic low for advanced countries, such as UK, USA and Japan, despite high public debt. This probably reflects the fact that there is a flight to safe assets issued by advanced country governments who 'still own their currency' (Krugman 2012).

One should also note that the advocates of the 'market confidence' thesis overlook the fact that rating agencies typically induct growth variables in their assessment of sovereign risk analysis. More importantly, studies have shown that the impact of a growth contraction on measures of sovereign risks is higher than the impact of debts and deficits on such risks. Hence, when fiscal consolidation leads to growth contractions they reduce rather than raise market confidence. It is perhaps not surprising to learn that in the vast majority of cases (at least for advanced countries) successful fiscal adjustment took place during booms and normal growth periods (Cotarelli and Jamarillo 2012; Islam and Hengge 2012).

Composition Matters

The problem with the simple debt-growth analyses is that they ignore other factors that affect growth. Kumar and Woo (2010) include variables that are commonly used in growth regressions, but their reporting is partial. For example, in their BE (Between Estimator) model, the coefficient of the initial years of schooling is 4.2, which is significant at 1 per cent level. This is significantly larger than the coefficient of the initial debt-GDP ratio. However, when they claim that 'a 10 percentage point increase in the initial debt-to-GDP ratio is associated with a slowdown in annual real per capita GDP growth of around 0.2 percentage points per year' (2010: 4), they do not consider how the initial debt was spent. If the initial debt was incurred to improve the initial years of schooling, certainly the likely negative impact of high initial debt would be more than offset, leaving a large net impact of 42 percentage points. Likewise, the initial high debt should affect the size of government which has a coefficient of 0.1 (significant at 5 per cent level). This too would lead to a net positive impact of increased public indebtedness on growth. The story does not change much

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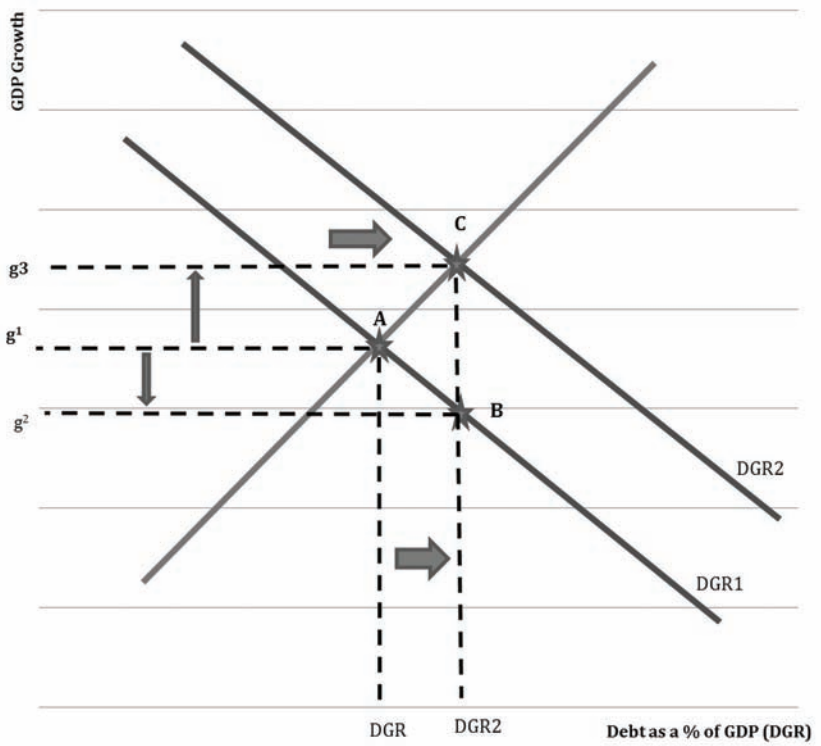
between different estimation techniques employed and in the robustness check using the parsimonious specification.

The importance of composition of public expenditure is also revealed in the econometric exercise reported in the IMF's *World Economic Outlook 2010* (IMF 2010b). It finds that the estimated impact on output of fiscal consolidation based on cuts to government transfers are relatively benign, whereas for adjustments based mainly on cuts to government consumption or investment, the output costs are larger.

What the above discussion shows is that even if there is a downward sloping debt-growth relationship curve, when we consider the growth effect of government's productive investment expenditure and consequent 'crowding-in' effect of private investment, the curve will shift to the right, producing a positive relationship between public debt and growth. This can be illustrated by using a simple diagram.

Figure 5: Debt and growth relationship (movement vs. shift)



Let us assume that the public debt-growth relationship is negative as in Figure 5. Let us suppose an economy is growing at g1 and the corresponding debt-to-GDP ratio is DGR1. Now, suppose that there is a secular increase in the public debt-to-GDP ratio from DGR1 to DGR2. If we simply focus on a movement along a given public debt-growth curve (from A to B), then the prediction is that the growth rate will decline from g^1 to g^2. Indeed, this will be the typical conclusion

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of any study that focuses only on the partial impact of debt on growth. On the other hand, the composition of public debt matters a great deal.[8] If we assume that the increased public debt will finance productivity enhancing investments in infrastructure and in enhancing public service delivery, then this would be represented as a rightward shift of the downward sloping public debt-growth curve and thus create the possibility of a movement from B to C. Incorporating this 'shift' effect thus means a net positive impact of higher debt on growth. Empirical studies that ignore 'shift' effects will thus arrive at misleading conclusions on the debt-growth relationship.

In sum, both the size and composition of public debt matter, as pointed out by Domar more than half century ago. Domar (1944) in the mid-1940s showed that economic growth is not neutral with respect to the level and composition of government expenditure. He notes 'that deficit financing may have some effect on income … has received a different treatment. Opponents of deficit financing often disregard it completely, or imply, without any proof, that income will not rise as fast as the debt … . There is something inherently odd about any economy with a continuous stream of investment expenditures and a stationary national income' (Domar 1944: 801, 804).

Tipping Point

Reinhart and Rogoff (2010) summarised evidence from 44 developed and developing economies, and found a threshold of 90 per cent for central government debt to GDP, after which the real growth rate declines. Although this study received considerable attention in the press, which has referred to it as a 'tipping point' (Pozen 2010), it uses histograms to describe some stylised facts, and hence cannot ascertain causality with any statistical significance. As growth declines, debt-GDP ratio rises, so the causality may run from low growth to high debt-GDP ratios.

An examination of various studies that provide an econometric investigation of the so-called 'tipping point' enables one to come to the following conclusions. First, the estimated thresholds vary widely — from as low as 15–30 per cent to 64 per cent of GDP for developing countries; for developed and emerging economies, the threshold ranges from 60 per cent to 90 per cent. It is difficult to advise policy-makers based on these estimates. More specifically, it becomes difficult to sustain the view that one can use reliable prudential targets to monitor the sustainability of public debt.

Second, at least one study (Caner, Grennes and Koehler-Geib 2010) notes that the coefficient below the threshold (64 per cent of GDP) is much larger than that above the threshold (+0.065 vs. –0.0174), implying that crossing the threshold is costly in terms of lost growth, but pushing below the threshold is even more costly. Furthermore, the high cost of lost output (reduction in growth rate) highlighted in that study is due to one extreme case (Nicaragua) and is also based on the strong assumption that a high degree of public debt will persist for nearly thirty years. For most countries, the estimated annual percentage point loss in real GDP growth is small.

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Finally, other studies draw attention to the notion of 'debt irrelevance'. In other words these studies (Cordello et al. 2005; Presbitero 2010) show that the public debt-growth relationship flattens beyond the threshold, implying that rising public debt has no statistically significant impact on growth after a certain point, suggesting that countries perhaps learn to live with debts.

Risk of Debt Spiralling

The IMF's *Fiscal Monitor 2010* (IMF 2010c) warns that without progress in addressing fiscal sustainability concerns, high levels of public indebtedness could weigh on economic growth for years. If governments fail to signal a credible commitment to reduce debt ratios, the resulting increase in interest rates (and decline in growth rates) could put greater pressure on deficits to widen and on public debt to increase. These kinds of dynamics have clearly affected Greece, Ireland, Portugal, Spain and several economies in Eastern Europe, countries that still have a relatively limited tax capacity, making the vicious forces at work more powerful. However, despite these experiences, there is scant evidence supporting strong dynamics between public indebtedness and the cost of servicing the debt in developed countries. Mounting public debt in the United States, the major economies of the Euro area and Japan has not pushed real interest rates up; the real interest rates have even declined in some countries — as was noted above.

The historical evidence also does not support the claim for such dynamics to emerge under all circumstances. For example, interest rates have remained low since the late 1980s in Japan, where public debt soared to 200 per cent of GDP during two decades of deflation. The higher debt-to-GDP ratio in Japan is partly due to very low inflation. A higher, but still moderate, inflation rate will raise nominal GDP and lower the public debt-to-GDP ratio unless there is an actual increase in the government's gross liabilities. In 1988, Belgium had the highest public debt. Italy's debt also shot above 100 per cent of GDP during this period (OECD 2009). None of these countries experienced spiraling inflation or very high interest rates as is commonly feared when government fiscal deficits rise. Japan is facing just the opposite — deflationary pressure and a zero interest rate.

At the end of the Second World War, the level of public debt in the United States had increased to over 100 per cent of GDP, but it did not cause any major increase in interest rates. Several studies on public finances in the United States found no significant relationship between debt-to-GDP ratios and inflation or interest rates over the period 1946–2008 (Aizenman and Marion 2009; Missale and Blanchard 1994). As long as there is spare capacity in the economy or unemployment, higher fiscal deficits add to purchasing power and do not exert much upward pressure on interest rates or inflation, nor do they cause large current account deficits.

Following De Grauwe (2011), one can also argue that the adverse impact on real interest rates depends on whether the debt is denominated in domestic or foreign currencies. This is evident in the contrasting experiences of Spain and the UK during the current episode of rapid public debt build-up. The UK public debt as a percent of GDP was 17 percentage points higher than the Spanish Gov-

ernment debt (89 per cent versus 72 per cent) in 2011. Yet, since the beginning of 2010 the yield on Spanish government bonds has increased strongly relative to the UK, suggesting that international bond markets price in a significantly higher default risk on Spanish than on UK government bonds. This difference rose to 200 basis points in early 2011. One of the reasons why the financial markets have singled out Spain and not the UK for the possibility of getting entangled in a government debt crisis is that they know Spain, as member of a monetary union, does not have control over the currency in which its debts are issued, while the UK public debt is mostly in its own currency.

A study prepared for the United Nations, *World Economic Situation and Prospects 2011* (UN 2011) traced the flow cost of servicing the public debt in developed countries in the present-day context. It found that so far the cost of public debt in the United States and the major economies of the Euro area has remained very low. Interestingly, for most countries, the flow cost of servicing the debt is below 2 per cent of GDP, except for Greece, Italy and Finland. For most of the developed countries, including the United States, it finds that the projected expected public debt burden is zero or negative. Most countries with low projected debt ratios have lower uncertainty in future debt burdens, and this uncertainty does not increase monotonically with the size of the projected debt. Thus, WESP (UN 2011: 26) notes, 'From this perspective, one could conclude that, insofar as future growth depends on short-term stabilization during or in the aftermath of a financial crash and a deep recession, the additional debt incurred for such stabilization may not translate into excessively high medium-term flow costs of public debt for an important part of the developed countries'. Therefore, the risk of triggering vicious public debt dynamics depends critically on the growth scenarios. On the other hand, premature fiscal consolidation may slow or delay economic recovery, and could well trigger such a vicious circle.

Fallacy of 'Expansionary Fiscal Contractions'[9]

In the preceding sections, we have highlighted the weak and doubtful empirical bases for a public debt-growth link based on cross-country data. Here, we examine more closely the claim that it is possible to construct 'expansionary fiscal contractions' and even 'growth-based' fiscal consolidation. We consider both cross-country studies and country-specific experiences. Based on this evaluation, we are reminded of Domar's (1944, 1993) key message that fiscal sustainability crucially hinges on economic growth. In a situation of uncertainty about the global economy and when the private sector is repairing its balance-sheet after a long period of profligacy, fiscal consolidation will most likely lead to an outcome similar to the 'paradox of thrift', whereby people end up saving less as their income declines due to cuts in spending by all in a bid to save more.

Fiscal Consolidation: Theory and Cross-Country Experience

Theory

The proponents of 'expansionary fiscal contractions' argue that even the supposedly short-run damage of fiscal austerity would be limited or not arise at

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all. If consolidations are credible, decisive, and of the right kind, then recovery should follow rapidly. This view rests, as noted above, on the 'market confidence' argument. The best articulation of this idea can be found in the 'Stability and Growth Pact' of the European Union:

> Upholding trust in the soundness of public finances enhances confidence among all economic agents and thereby contributes to sustainable growth in consumption and investment. Stability and growth are thus not conflicting objectives, but rather reinforce each other — a fact which is very well captured in the title of the fiscal framework called the 'Stability and Growth Pact'. (ECB 2003: 6)

The same message has been reflected in the recent G20 communiqué. It accepts the stabilising role of fiscal deficits, but only in exceptional situations. In the contemporary debate on fiscal consolidation, some commentators have suggested a 'forward-looking' interpretation of 'market confidence'. This implies that governments have to be proactive and anticipate how markets might react in the future by adopting a 'big bang' approach to fiscal consolidation. Thus: 'Given that the current levels of debt are high by historical standards and that they are very high in many advanced economies, *it might be that markets will soon ask for a strong signal of commitment* and, in its absence, risk premia on government bonds will increase. To avoid an increasing cost of rolling over the debt, *governments could be better off with a strong early adjustment*' (emphasis added) (Fatás 2010). Therefore, consolidation should take priority over stabilisation, and discretionary fiscal stimulus measures should be switched off as soon as possible to avoid any damage to 'credibility'. This is supposed to inspire the 'confidence' of bond investors to offset any contractionary impact of public expenditure cuts or increased taxes. This is especially important for countries facing acute debt problems, with very high debt ratios together with the prospect of soaring debt service burdens, threatening crowding out and adverse confidence effects.

The key link here is between debt costs and bond market confidence. It is an additional argument that reinforces the neo-Ricardian equivalence idea or hopes for positive 'supply-side effects' from shrinking public spending. Therefore, fiscal consolidation could be expansionary since cuts in government spending should strengthen market confidence, and hence lower borrowing costs due to reduced perceptions of country risk and spur private investment. In the most favourable case of fiscal consolidation, non-Keynesian effects (from greater credibility and investor confidence) exceed contractionary Keynesian effects of reduced public spending, resulting in higher growth.

Fiscal discipline is also seen as a safeguard protecting monetary policy from political pressures. Complementing central bankers' 'independence', a prudent fiscal framework is expected to help maintain price stability. In sum, deliberate reversal of fiscal trends, brought about by means of redesigned macroeconomic policies and institutions, is believed to have a positive impact on business expectations and investment to deliver economic growth and employment. Thus, important links are believed to exist between fiscal consolidation, fiscal and monetary institutions, and economic growth and employment.

Empirical Evidence

A number of cross-country studies have sought to demonstrate using historical data that fiscal consolidation exercises are accompanied by growth and declines in unemployment. Two cases from this *genre* can be highlighted. First, an IMF study (Dermott and Wescott: 1996) focused on 74 cases of fiscal consolidation in 20 industrialized countries over the 1970–1995 periods. It concludes that 14 cases were 'successful' in the sense that they were marked by sustainable reduction (by about three percentage points over a period of three years) in the debt-to-GDP ratio as well as an increase in growth and employment creation. Second, a study by Alesina and Ardagna (2010) assembled 107 episodes of fiscal consolidation in all OECD countries for the 1970 to 2007 period (see also Alesina 2010). It concludes that 27 could be classified as cases that combined fiscal consolidation with growth. Such results are underwhelming. The historical experience thus suggests that the probability of a successful fiscal consolidation is between 19 per cent (or 14 out of 74 as in the IMF study) and 25 per cent (or 27 out of 107 as in the Alesina-Ardagna study).

However, Alesina and Ardagna's study as well as a similar earlier study by Alesina et al. (1995) have been criticized by the IMF (2010a) on methodological grounds. Specifically, these studies often identify periods of fiscal consolidation using a statistical concept — the increase in the cyclically adjusted budget surplus — that is a highly imperfect measure of actual policy actions. 'This way of selecting cases of consolidation biases the analysis toward downplaying contractionary effects and overstating expansionary ones' (IMF 2010a: 94). Thus, in its *World Economic Outlook* the IMF (2010a) uses an alternative method for identifying periods of fiscal consolidation by focusing on policy actions intended to reduce the budget deficit. It finds that fiscal consolidation typically has a contractionary effect on output. A fiscal consolidation equal to 1 per cent of GDP typically reduces GDP by about 0.5 per cent within two years and raises the unemployment rate by about 0.3 percentage point. Domestic demand — consumption and investment — falls by about 1 per cent.[10]

Even if one accepts that fiscal consolidation exercises have a reasonable chance of being accompanied by growth and employment creation, one should not attribute such an outcome to budgetary austerity alone. There are often complementary factors at work that might be more important than fiscal actions. They include: (1) the influence of the global business cycle, (2) monetary policy, (3) exchange rate policy and (4) structural reforms. Dermott and Wescott (1996: 10) found that '… strong global economic growth helps to achieve a successful consolidation, and weak global growth reduces the chances that consolidation will cut the debt-to-GDP ratio'. It is also well-known that fiscal retrenchments can be combined with loose monetary policy to offset recessionary consequences. One European Commission study (Posen 2005) finds that, in more than 50 per cent of the cases examined, fiscal austerity programmes were accompanied by expansionary monetary policy that enabled growth to be sustained. Similarly, the idea of combining fiscal retrenchments with devaluation that boosts net exports to offset the decline in aggregate demand (so-called 'expenditure reducing policies' combined with 'expenditure switching policies') is well known.

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Furthermore, the expansion that accompanies fiscal consolidation might well arise from structural reforms that alleviate binding constraints on growth.

The importance of these enabling factors needs particular attention in the light of current circumstances. To start with, the post-crisis economic recovery is still fragile when judged from an employment and labour market perspective. Consider, for example, private sector assessments of anticipated employment trends gauged by *The Manpower Employment Outlook* for the third quarter of 2012 — a report that has been around for 50 years. It interviewed over 65,000 employers across 41 countries and territories to measure anticipated employment trends between July and September 2012 (Manpower 2012). Overall, it reports an overall expected some slowing of hiring activity from the already flat pattern for the same period in 2011, despite areas of positive hiring activity in 33 countries. Hence, the regional/global business cycle is not conducive enough to the effective working of fiscal consolidation. The Eurozone economies also do not have scope for devaluations nor do they have much room to cut interest rates further through expansionary monetary policy as policy rates are still at historically low thresholds.

In sum, the results of historical studies of fiscal consolidation exercises suggest a relatively high failure rate. Even in the successful cases, there were enabling factors at play that might have offset the recessionary consequences of fiscal retrenchments. Furthermore, the usual arguments that are invoked to justify fiscal consolidation (Ricardian equivalence, crowding out and market confidence) lack robust empirical substantiation. One study (Broyer and Brunner 2010) has offered some estimates of the net impact of fiscal consolidation on growth in eight European economies (Germany, France, United Kingdom, Italy, Spain, Netherlands, Portugal, and Greece). It suggests that, even by 2016, all countries bar one will suffer an output contraction as a result of the transition from fiscal stimulus packages to consolidation.

Fiscal Consolidation: Some Country-Specific Experiences

The US case under the Clinton Administration

Fiscal consolidation during the Clinton era might be considered as one of the best recent examples of fiscal consolidation that was accompanied by significant and sustained growth. The strong dollar policy and lower interest rates were the prime movers behind the Clinton era expansion, which in turn increased revenue and reduced social security expenditure, and thereby achieved a fiscal surplus.[11] Expansionary monetary policy, in particular, triggered and sustained growth. As we will argue, fiscal consolidation was a consequence, rather than a cause, of such growth.

Then Treasury Under-Secretary Summers argued against a weak dollar policy to promote growth through exports for at least two reasons. First, there is a time-lag between exchange rate adjustments and the response of exports to such adjustments — the so-called J-curve effect. Second, in a world of increased capital mobility, any perception of a fall in dollar has to be matched by a corresponding rise in interest rates (due to the arbitrage condition known as interest parity).

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The higher interest rates associated with a weaker dollar thus stifle growth while export growth lags.

The new Secretary of Treasury, Rubin, endorsed the strong dollar argument. In his confirmation hearings before the Senate Finance committee, he stated that a strong dollar was in the best interest of the U.S. economy and warned that the exchange rate should not be an instrument of U.S. trade policy. At a prime-time news conference on 19 April 1995, President Clinton stated that the U.S. 'wants a strong dollar' and that it 'has an interest over the long run in a strong currency.' This change of exchange rate policy saw the rise of index value of the US dollar against major currencies from less than 80 in January 1995 to over 100 by January 2000 (DeLong and Eichengreen 2011).

A strong US dollar also meant less imported inflation, allowing the Fed to maintain expansionary monetary policy. The Fed refrained from terminating the boom of the 1990s by raising interest rates even though unemployment fell markedly below any previous conventional NAIRU measure. In addition to boosting growth, low interest rates helped keep bond yields close to the nominal GDP growth, so that the interest burden stayed under control, as reflected in stability of primary balances. The US experience illustrates that it was expansionary monetary policy, in particular, that ignited and sustained growth, allowing fiscal consolidation. In large part, fiscal consolidation during the Clinton era was a consequence of the economic boom itself.

The cases of Denmark and Ireland[12]

Denmark's (1983–87) and Ireland's (1987–89) successful consolidations are widely seen as demonstrating the dominance of non-Keynesian effects and the possibility of 'expansionary fiscal contractions.' However, Denmark had to live through a long period of sluggish growth from 1987 until 1993, following its supposedly expansionary fiscal contraction of 1983–87. Domestic demand shrank in six of seven years, turning a current account deficit of 5.3 per cent of GDP in 1986 to a surplus of 2.8 per cent in 1993. Since 1994, domestic demand recovered as the real interest rate began declining and converged to the EU25 area rate. The Danish central bank not only followed all of the interest rate changes made by the ECB, it also implemented several interest rate cuts independently, thus supporting GDP growth. This easing of monetary policy was possible due to the stability of the exchange rate, which remained within the fluctuation bands defined in ERM II. Denmark embarked on fiscal consolidation in 1996 and, in 2003, only after growth had returned.

Ireland's fiscal tightening of 1987–89 was followed by a sharp fall in GDP growth; the Irish resurgence took off in earnest in 1994 (after a second dip recession in 1993). The move to wider ERM exchange rate bands in August 1993 and the commitment to EMU were successful in removing the pressure on exchange rates and its implications for interest rates. The more stable exchange rate environment allowed interest rates to fall and converge to the German levels, which helped boost domestic demand and investment (Murphy 2000). It seems that the contraction of the Irish economy by over 7 per cent in 2009, following its severe austerity measures, is a replay of its earlier experience. Instead of being rewarded

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for its actions, taken long before the Greek drama unfolded, investors seem to have punished Ireland. The factors that contributed to Ireland's exceptional growth performance in the 1990s included interest rate convergence, massive EU transfers and foreign direct investment, not so-called investor confidence.

Thus, like the US story of the Clinton era, the Danish-Irish growth since the mid-1990s was the result of favourable exchange rate and interest policies, which, in turn, helped fiscal consolidation. A close scrutiny of the Danish-Irish cases would also show that both economies were helped by a favourable world economic environment through buoyant export demand and direct foreign investment.[13] This fundamental point is often missed in conventional analysis

What are the policy lessons from these cases? This can be answered by using the familiar identity among budget deficits (BD), saving (S), investment (I) and current account deficits (CD): BD = S – I + CD. Thus, there are two policy options: either adjust the right hand or the left hand variables to achieve the desired goals. That is:

i) Discretionary cuts in BD which lead to adjustments in S, I & CD

ii) Policy adjustments to influence S, I & CD

It seems all three, the US, Denmark and Ireland, chose the second option. The most pertinent policy lesson is, there are alternatives and that adjustments of relevant policy instruments to achieve desired goals seem to yield better results than discretionary and forced adjustment. Although the discretionary option may seem attractive as having to deal with only one variable instead of three and hence can give an impression of more certainty, actual outcome appears to be different.

Concluding Remarks

There is no doubt that many industrialised countries are facing serious fiscal crises that need to be tackled soon. However, as a recent BIS paper noted, the key challenge for fiscal authorities is 'how to do that without seriously jeopardising the incipient economic recovery' (Cecchetti, Mohanty and Zampolli 2010: 2). Unfortunately, fiscal authorities in many industrialised countries, Europe in particular, seemed to have failed. They have embarked upon drastic fiscal consolidation measures without regard for the underlying causes of fiscal problems, i.e. how much of this is due to cyclical factors, such as the ongoing recession and how much is due to structural factors, such as ageing population and unfunded pension schemes, non-progressivity of the tax system or bloating of the public sector.

Many countries had huge public debts when World War II ended. Despite calls then for drastic expenditure cuts, governments spent a great deal more on economic reconstruction and social protection measures. Had they caved in to the fiscal hawks of their time, post-war European recovery would have been delayed and the Cold War could have been lost. As governments continued with massive expenditure to rebuild their countries, economies grew all over the world, and debt burdens diminished quickly with rapid economic growth and fast growing tax revenues. These experiences show that deficits and surpluses

should be adjusted counter-cyclically over the course of business cycles (Matthews 1968).

There is, of course, one big difference between then and now. The financial sector is much more powerful now, with governments often held hostage by financial markets and the whims of rating agencies. The record of rating agencies before the 2008 global economic crisis is now widely acknowledged as abysmal, with even the US Congress seriously debating whether or not they should be prosecuted.

The claim that high public debt causes lower growth and that it is possible to have 'expansionary fiscal contractions' cannot be supported by robust cross-country evidence as well as by country-specific experiences. Such a claim also ignores the impacts of other variables, especially of those which may be affected by public debt itself. For example, high public debt could be used to improve schooling which is found to have a larger positive impact on growth than the estimated negative impact of public debt-GDP ratios. Public debt to enhance government capacity and capabilities (measured by size of government) or to improve infrastructure can also positively contribute to growth and outweigh the potential adverse impact of high initial debt-GDP ratios. In other words, as Domar pointed out, both the size and composition of debt matter. The growth-inhibiting effects of a given percentage increase in debt-to-GDP ratio can be easily overwhelmed by a given percentage increase in the growth-promoting variables achieved through public spending.

The issue, however, is different when it comes to the accumulation of external liabilities. The question is then not only of being able to repay, but also whether other countries would be willing to continue to lend. Paradoxically, in crisis-hit countries with access to private capital markets, fiscal prudence does not offer any safeguard against the pitfalls and perils of private sector-led accumulation of external liabilities because they eventually become the liabilities of the government. This is a lesson that Ireland and other debt-ridden economies of the Eurozone have painfully discovered today in the wake of the global recession of 2008–2009 and as Indonesia and Thailand discovered during the 1997 Asian financial crisis.

The current preoccupation with public debt and fiscal consolidation has had the consequence of distracting attention from the crucial role that fiscal policy plays in promoting growth and development. This point is made forcefully in an insightful 'interim report' that informed the deliberations of the Development Committee of the IMF and World Bank in April 2006. The authors of the report note that debts and deficits are useful indicators for:

> … controlling the growth of government liabilities, but (they) offer little indication of longer term effects on government assets or on economic growth. Conceptually, the long-term impact is better captured by examining the impact of fiscal policy on government net worth. (Development Committee 2006: i)

The report argues that '… there is clearly a need for fiscal policy to incorporate, as best as possible, the likely impact of the level and composition of expenditure

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and taxation on long-term growth … ' (ibid.).[14] It is time to resurrect these important ideas as an antidote to the alarmist discourse on public debt.

There is also the more fundamental issue of whether the policy-making process should become hostage to the 'confidence game' in which evidence-based policy-making is replaced by a band of amateur psychologists seeking to read the collective mood of financial markets. When this happens, fundamental macroeconomic policy errors are likely to be committed, as the mishandling of the 1997 Asian financial crisis by international financial institutions has shown.

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Notes

1. 'Fiscal consolidation' is a policy intended to reduce deficits and the accumulation of debt. The term typically refers to a government economic policy. The terms 'fiscal consolidation' and 'fiscal austerity' will be used interchangeably in this paper.
2. See Federal Ministry of Finance, Germany: 2012. For other OECD countries, see OECD 2010, Chapter 4. Fiscal consolidation requirements in the OECD countries are summarized as: 'Consolidation requirements are substantial; merely to stabilise debt-GDP ratios by no later than 2025 requires strengthening the underlying primary balance from the current position by more than 5 per cent of GDP in the OECD area on average. Tightening by more than 8 per cent of GDP is called for in the United States and Japan, with the United Kingdom, Portugal, Slovak Republic, Poland and Ireland all requiring consolidation of 5 to 7 percentage points of GDP. Consolidation requirements would be much more demanding if the aim were to return debt-to-GDP ratios to their pre-crisis levels. In addition, for a typical OECD country, offsets of 3 per cent of GDP will have to be found over the coming 15 years to meet spending pressures due to ageing, representing additional cumulative consolidation requirements of about ¼ per cent of GDP per year (OECD 2010: 12).
3. The detailed findings and methodologies employed are reported in Kumar and Woo (2010).

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4. This does not, of course, imply causality between debt and growth, but the nature of the association shown here is insightful.
5. Of course, one should recognise the limits of the IS-LM framework, most notably the assumptions pertaining to the exogeneity of money and the ability of governments to control monetary aggregates. This affects the use of the LM curve as a valid analytical device. See, for example, Romer (2000). The advocates of the DSCGE or dynamic computable general equilibrium models would also debunk the use of the IS-LM framework in probing the 'crowding out' thesis on the ground that this framework is not rigorously 'microfounded'. Yet, DSGCEs also suffer from various limitations. A detailed discussion of this issue is beyond the scope of the paper.
6. Chick and Pettifor (2011), using historical UK data for 1909–2009, show that there was a very strong negative association between government expenditure and the government debt, excluding the two outliers for the World Wars. When public expenditure increased, public debt fell, as the economy expanded and revenue rose. On the other hand, contrary to the conventional wisdom, fiscal consolidations did not improve public finances.
7. See Hart (2011) for exposition of this.
8. Based on historical Australian data, Nevile and Kriesler (2011) stress the importance of the composition of government expenditure.
9. This Section draws on the authors' VoxEU commentaries (Chowdhury and Islam 2010a, 2010b; Islam and Chowdhury 2010), and G24 Policy Briefs Nos. 57 & 58 (Islam and Chowdhury 2010b, 2010c).
10. Jonathan Portes, Director of the National Institute of Economic and Social Research, which is Britain's oldest independent research institute, has pointed out that the Alesina-Ardagna study has been so discredited that the UK Treasury, which was briefly influenced by that study and used its findings to justify the Emergency Budget of 2010, has now retreated from that position. See Portes (2011). John Quiggin, a leading Australian economist, chastises the Alesina-Ardagna (AA) paper for making elementary factual errors in the case study of Australia, advancing it as a clear case of expansionary fiscal contraction (Quiggin 2012). Others who have been critical of the AA study include *The Economist* which considers the study 'seriously flawed' (The Economist 2010b).
11. President Clinton was also able to fend off pressure to increase spending when a surplus did emerge in 1998 with the successful slogan, 'Save Social Security First.' The policy was at least 'let's save the surpluses until we put social security on a firm footing' — no tax cuts, no big spending increases. For the political economy explanation, see Berglund and Vernengo (2004).
12. Giavazzi and Pagano (1990) first raised the prospect of expansionary fiscal consolidation based on their analysis of Denmark and Ireland.
13. Perroti (2011) reports similar observations after detailed case studies of fiscal consolidations in Ireland, Denmark, Finland and Sweden.
14. This report was attached to the 23 April 2006 World Bank's Development Committee meeting.

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