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Chapter III

FISCAL SPACE, DEBT SUSTAINABILITY AND ECONOMIC GROWTH



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A. Introduction

The global financial and economic crisis has raised important macroeconomic policy issues concerning the appropriate fiscal response, and its size, composition and duration. After an initial wide consensus on the necessity of proactive macroeconomic policies to support demand, many policymakers have now shifted their focus from fiscal stimulus to fiscal tightening. The policy debate today is about what measures should be taken to achieve the widely agreed objectives of recovery from the crisis and an improvement in fiscal accounts, as well as the sequencing of those measures. The debate reflects, explicitly or implicitly, different views on economic mechanisms and the role of governments. One view is that the impact of fiscal policy tends to be weak or ineffective, based on the assumption that there is a trade-off between public and private expenditure. According to this view, the private sector will adjust its expenditure in a way that counterbalances any change in public sector action. Those who oppose this view maintain that fiscal policy is the most appropriate tool for pulling an economy out of recession.

For a proper assessment of the role of fiscal policy, it has to be considered from a macroeconomic and dynamic perspective, taking into account the impact of that policy on total income and GDP growth, and consequently on fiscal revenues. A restrictive fiscal policy aimed at fiscal consolidation may not succeed for the simple reason that a national economy does not function in the same way as an individual household. Indeed, there is a fallacy of composition

in such an analogy: an isolated agent may be able to increase savings by cutting back spending because such a cutback does not affect its revenues; but this does not hold for governments.

An argument frequently advanced in support of fiscal retrenchment is that there is no more fiscal space available for further fiscal stimulus, even if it is acknowledged that such policies were useful at the initial stages of the crisis. However, this argument overlooks the fact that fiscal space is not a static variable. It would be a mistake to consider this policy space as exogenously determined rather than a largely endogenous variable. An active fiscal policy will affect the fiscal balance by altering the macroeconomic situation through its impact on private sector incomes, as those incomes generate fiscal revenues. In addition, it is possible to increase the economic impact of fiscal policies by changing the composition of public expenditure or public revenues in a way that maximizes their multiplier effects without necessarily modifying the total amount of expenditure or the fiscal balance. Conversely, fiscal adjustment that reduces growth and productive investment can eventually reduce the fiscal space.

Indeed, there is a general misconception in the debate on fiscal policies that confuses policy measures with policy results. Fiscal consolidation (i.e. improvement of the fiscal balance), which is actually a policy result, tends to be equated with fiscal tightening, which is a policy measure. However, fiscal

tightening (i.e. increasing taxes and/or cutting expenditures) may improve the fiscal balance, but equally it may lead to its deterioration. On the other hand, fiscal consolidation can also result from an expansionary fiscal policy stance. The final result will depend on the macroeconomic effects of fiscal measures, in particular how they affect economic growth and, in turn, fiscal revenues. Therefore, fiscal consolidation as a result of policies should be clearly distinguished from policies of fiscal tightening or expansion.

Additionally, the case of natural-resource-rich countries deserves special attention. In a majority of these countries, government revenues largely depend on the extractive industries and are therefore vulnerable to volatile international commodity prices. This poses unique policy challenges, owing to the extreme instability of their fiscal resources and the future depletion of the source. Moreover, the insufficiency of compensatory effects (such as automatic stabilizers) in times of fiscal imbalances makes their governments prone to adopting a procyclical fiscal stance. At the same time there is a chronic tendency to currency appreciation, which has negative effects on domestic manufacturing, also known as Dutch disease effects.

Finally, varying interpretations of the meaning of fiscal space and divergent opinions about the adequacy of policies for recovery from the crisis have led to differing views on the risks involved in the accumulation of public debt, and how to deal with fiscal sustainability issues. First, it is worth emphasizing the trivial but often forgotten point that different types of debt crises need different types of policy responses. Reacting to a crisis that originates from excessive private sector borrowing with fiscal tightening does not appear to be an appropriate policy response, particularly if the crisis is associated with asset market deflation that has a contractionary impact on the economy. Even crises that originate from an irresponsible fiscal policy may need a short-term response which might be different from what is needed in the long run.

There are also important differences in the management of debt crises, depending on the currency in which the debt is denominated. When sovereign debt is denominated in domestic currency an outright default is less likely to occur since the government can always monetize the public debt, unless stiff restrictions are imposed on its financing by the

central bank. Of course, depending on the overall macroeconomic situation, such a response can have an impact on goods and asset prices (including the exchange rate), with resulting distributional effects, among others. In the case of public debt denominated in foreign currency, there are greater limitations, and it may be necessary to consider the implications of an eventual insolvency. Experiences with different mechanisms for resolving debt crises reveal variations in the distribution of costs and benefits. However, in general they have shown that sovereign defaults are less costly than commonly considered, either for debtors or creditors.

Bailouts of countries facing external constraints and difficulties in servicing their debts have proven to be relatively benign. It is often thought that providing support to a country that lacks access to voluntary credit entails costs for the lending institution (or the taxpayers that sustain the institution when it is a public agency, as it normally is). However, this is rarely the case, because the country in trouble usually pays back.¹ In fact, a strategy that tries to reduce these costs by charging punitive interest rates on emergency loans may backfire, because it will validate markets' expectations and actually increase the probability that the crisis-affected country will not be able to repay.

Most of the understanding about recent sovereign debt crises – before the current one – arises from the experiences of developing countries. Empirical evidence shows that contractionary efforts in those countries were not particularly successful, and that debt sustainability was achieved by promoting higher rates of economic growth, although in several cases some form of debt relief was also required.

In this context, the following section discusses the main challenges to fiscal policy linked to the Great Recession in the form of premature pressures for fiscal tightening in both developed and developing economies. The issue of fiscal space is discussed in section C, with an emphasis on the need for governments to have sufficient room for manoeuvre in realizing their policy objectives without this leading to an unsustainable accumulation of debt. The role of monetary policy in creating fiscal space is also highlighted. Section D analyses the question of public-debt accumulation, including policies aimed at preventing public-debt crises and those needed to resolve such crises.

B. Fiscal policy challenges

For many years, fiscal policies were marginalized as a macroeconomic tool. They were considered ineffective, impractical and redundant. Ineffective, because it was believed that any change in public expenditure would be compensated for by a concomitant change in private expenditure; impractical, because the design and implementation of fiscal policy, as well as its effects, would take more time than any recession itself; and redundant because monetary policies seemed to be adequate for maintaining both low inflation and a stable output gap.

The crisis prompted a rethinking of macroeconomic ideas, as monetary policy showed certain limitations, and governments were once again viewed as buyers and borrowers of last resort (Blanchard, Dell’Ariccia and Mauro, 2010). It seems, however, that the acceptance of short-term fiscal stimulus did not involve a revision of macroeconomic principles, but only agreement that the exceptional circumstances required temporary fiscal action. Influential policymakers have now returned to a traditional vision by once again supporting a policy of fiscal adjustment. In most developed countries, their priority goal is a reduction of what they consider to be overly high public debt levels, even though they acknowledge that the recovery has been moderate and is still fragile. They are also calling for fiscal adjustment in developing countries, which generally display much lower debt ratios than most developed countries and have returned to their pre-crisis growth rates. This is based on the belief that these economies should avoid overheating and should reconstitute the fiscal buffers that could be used if a new crisis episode were to erupt, for example if the conditions that allowed recovery were to disappear. And even countries that did not resort to fiscal stimulus when

the crisis broke, because they engaged in early adjustment programmes with the support of the IMF and/or the EU, are being urged to apply further fiscal adjustments (IMF, 2011a). Finally, there are specific fiscal challenges facing the natural-resource-rich developing countries, where fiscal policy tends to be procyclical and associated with changes in commodity prices.

1. *Exit strategies and the shift to fiscal tightening*

The proposed shift to fiscal restraint raises several interlinked issues – both empirical and conceptual – concerning the need for fiscal adjustment, the ways in which such an adjustment could be achieved and the economic consequences of this strategy. The starting point is the perception that the space for fiscal stimulus is already – or will soon be – exhausted, especially in developed countries. This is based on the belief that debt ratios have already reached or are approaching a level beyond which fiscal solvency is at risk. After that point, the government would not be able to generate a primary balance to cover the growing interest payments. This implies that the public-debt-to-GDP ratio would rise without bound (Ostry et al., 2010). However, it can be argued that such a debt limit is difficult to identify, since it depends on the prevailing interest rate, economic growth and primary fiscal balances. First, the interest rate is itself a macroeconomic policy variable, and this implies that monetary policy might have a significant impact on debt sustainability. Second, both GDP growth and the primary balance could be influenced by debt-financed

government spending, as tax revenues rise with the growth of national income. In other words, debt-to-GDP ratios may be increasing only temporarily in the short run, and their growth might be instrumental in boosting GDP growth and reducing the debt burden in the long run.

In a different but complementary approach to that of Ostry et al. (2010), some authors have estimated a threshold for the public-debt-to-GDP ratio that an economy could not exceed without negatively affecting growth rates, which in turn would undermine fiscal solvency. According to these estimates, the critical level is 90 per cent of GDP for developed economies and 60 per cent for emerging market economies (Reinhart and Rogoff, 2010). The finding that developing countries are constrained by a lower debt-to-GDP ratio seems to be associated with their propensity to issue foreign-currency-denominated debt and with foreign ownership of their debt. Nersisyan and Wray (2010) found that out of 216 observations, only five revealed debt-to-GDP ratios that exceeded 90 per cent. This is not a sufficiently large sample to conclude that high debt-to-GDP ratios are correlated with low levels of economic growth. More importantly, correlation does not necessarily imply causation.

The IMF, despite favouring countercyclical policies at the early stage of the crisis, is strongly supporting the austerity programmes now being pursued by many countries. According to conventional wisdom, a given debt ratio that seemed sustainable may become unsustainable if, beyond a tipping point, risk premiums increase interest rates or impede the normal roll-over of the debt that is reaching maturity in a self-fulfilling prophecy. Still, according to the conventional view, given that financial markets have increased their focus on fiscal weaknesses, it is urgent to avoid a widespread loss of confidence in fiscal solvency, which would have huge cost impacts. Therefore, credibility must be regained with a “convincing deficit reduction plan” that would curb any increase in public debt ratios; otherwise, developed countries’ debt will reach 115 per cent of GDP by 2015. This is why the IMF believes “fiscal strategies should aim at gradually – but steadily and significantly – reducing public debt ratios” (IMF, 2010a: 4). According to the IMF and

the mainstream view, the risk of a confidence crisis in the financial markets would be more serious than that of a double-dip recession, since it is believed that private demand in the developed economies is recovering on a sustainable basis and replacing public demand (IMF, 2011b). Thus, according to this logic, it should be possible to tighten fiscal policies without jeopardizing global recovery.

Even assuming that the immediate policy goal is to curb the public-debt-to-GDP ratio, this can be done by reducing the numerator (the amount of the debt), increasing the denominator (current GDP), or arriving at a combination of these two options. The

In developed economies,
fiscal policy is shifting from
stimulus to restraint in order
to tackle high public debts.

preferred strategy of the mainstream position is reducing debt, even if the policies chosen to do this may also negatively affect GDP growth. In fact, even among the advocates of fiscal tightening it is recognized that “fiscal consolidation typically causes short-term contractionary effects” (Bornhorst et al.,

2010: 7; see also IMF, 2010b). However, these short-term costs are assumed to be moderate and temporary, and to be much lower than the long-term costs, which allegedly would be avoided as a result of fiscal tightening.

The IMF used its Global Integrated Monetary and Fiscal Model to estimate the impact of fiscal adjustment in developed economies, and found that a “fiscal consolidation equal to 1 percent of GDP typically reduces real GDP by about 0.5 percent after two years” (IMF, 2010b: 98). According to the simulation, the type of fiscal adjustment applied influences the final cost: an adjustment through reduced spending would be less contractionary than an adjustment through tax increases.² The difference does not result from dissimilar multipliers associated with higher taxes or lower spending, but from the assumption that the latter is typically accompanied by a large dose of monetary stimulus, which lowers the interest rate, causes a depreciation of the currency and generates net exports. On the other hand, the IMF assumes that central banks typically are reluctant to reduce interest rates when fiscal tightening is undertaken by increasing taxes, because indirect tax hikes would raise prices (IMF, 2010b).³ Hence, IMF calculations that show a relatively low cost of fiscal adjustment in terms of GDP growth do not measure

the impact of the adjustment itself; rather, they show the impact of a package composed of a spending-based fiscal adjustment plus monetary expansion, along with a net increase in exports. In addition, it is assumed that trade partners will accept an appreciation of their currencies and a deterioration of their trade balances. This raises the issue of simultaneity of fiscal consolidation, since not all countries can expand their net exports at the same time. Without the above-mentioned compensatory factors, the estimated GDP cost of fiscal contraction would be substantially higher. Thus, if interest rates are not lowered, a spending cut equivalent to 1 per cent of GDP leads to an output loss of 1.1 per cent in the first year and 1 per cent in the second year. If, in addition, the rest of the world undertakes fiscal consolidation at the same time, GDP contraction will double to 2 per cent in the first two years, and the negative effect will last for five years (IMF, 2010b).

Even if it is acknowledged that fiscal tightening has a short-term negative impact on growth, it is assumed that it will have a positive impact in the medium and long term. Lower government debt levels – resulting from fiscal restraint⁴ – would reduce the burden of interest payments and increase the supply of savings. This, in turn, would reduce the real interest rates and “crowd in” private investment. Overall, IMF simulations find an ambiguous effect of fiscal adjustment on growth, with short-run temporary costs but also more permanent GDP gains. The losses are expected to be entirely offset by the gains within five years (IMF, 2010b).

Hence the central mechanism that is expected to moderate the short-term costs of fiscal adjustment and deliver long-term gains in developed economies stems basically from the reduction of interest rates that would be associated with lower debt ratios (Bornhorst et al., 2010). However, this negative relationship between real interest rates and the level of public debt is far from evident. Analysis of the data for a set of developed countries shows that either the correlation between the two variables was weak and statistically insignificant or (more frequently) that it moved in the opposite direction than that expected: higher debt was actually associated with lower interest rates and vice versa (chart 3.1). The same results were obtained when real interest rates were compared

with the changes in the public-debt-to-GDP ratio: a reduction in that ratio was associated with higher, not lower, interest rates.

Consequently, it cannot be assumed that successful fiscal consolidation will lead to lower interest rates, since those rates are managed by monetary authorities. But even if it did, this would not necessarily lead to an improvement in demand, investment and growth. Indeed, in the developed economies that were severely hit by the financial crisis, the private sector has not yet completed the deleveraging process through which non-financial agents try to reduce their indebtedness and banks try to restore their capital ratios. In such a “debt-deflation crisis” (Fisher, 1933) or “balance sheet recession” (Koo, 2010), low interest rates and fresh credit cannot be expected to lead the way out of the crisis.

In such a situation, monetary policy has asymmetrical outcomes: monetary tightening could make matters worse, but monetary expansion will have little stimulating effect. Thus, relying on monetary or credit expansion is like “pushing on a string”, whereas fiscal retrenchment would effectively stall economic recovery. And if it weakens GDP growth and fiscal revenues, fiscal consolidation itself may not be achieved.

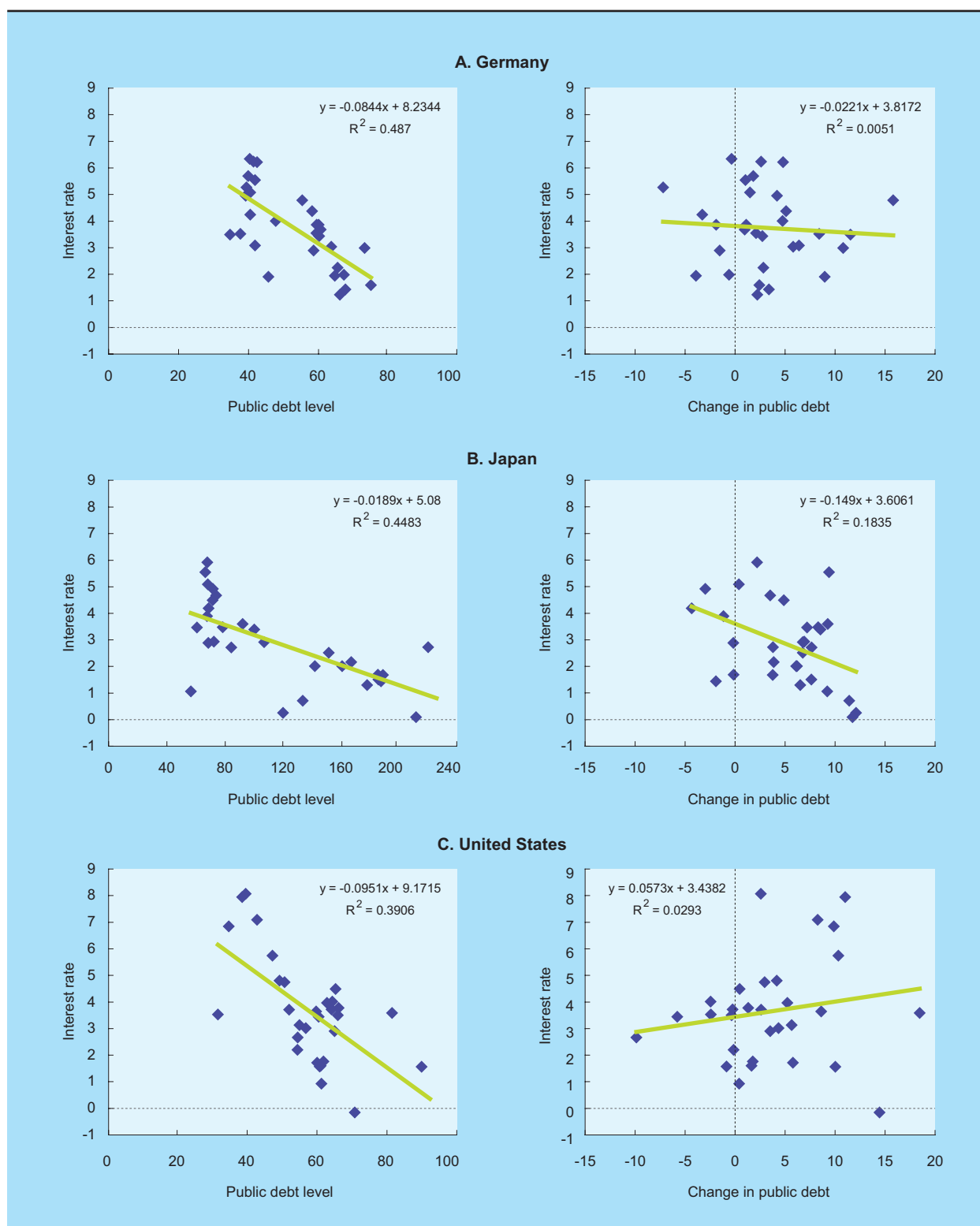
Despite the lack of solid conceptual foundations, most developed economies have embarked on fiscal tightening, concentrating on the expenditure side. Spending cuts on welfare, health care and pensions have been the most frequently used measure in OECD countries, occurring with up to 60 per cent frequency (OECD, 2011). Pension reforms include raising the retirement age, or freezing or reducing pension payments. Other age-related cuts in expenditure include health care and long-term care, with projected cuts accounting for 3 per cent of GDP, on average. Other measures relate to public sector salaries and jobs (e.g. Greece, Ireland, Slovenia and Spain have cut salaries, while France and Italy have frozen them). On the other hand, cuts in government spending on agricultural subsidies have been the least frequently applied in OECD countries, occurring with less than 15 per cent frequency. Further, in the United States, for example, rules requiring state and local governments to maintain a balanced budget are already being revived, bringing to an end the period of grace

If austerity measures reduce GDP growth and fiscal revenues, fiscal consolidation may not be achieved.

Chart 3.1

**RELATIONSHIP BETWEEN PUBLIC DEBT AS A PERCENTAGE OF GDP AND
REAL LONG-TERM INTEREST RATES IN GERMANY, JAPAN AND THE UNITED STATES, 1981–2010**

(Per cent)



Source: UNCTAD secretariat calculations, based on IMF, *Historical Public Debt Database*, and *World Economic Outlook* database.

that was made possible by subsidized funding from the Federal Government. This means that the clamp down will be felt at all levels of the economy.

Tax hikes accounted for one third of the fiscal tightening policies announced by OECD countries. Consumption taxes are the single most widely adopted tax measure, having been increased in 20 OECD countries. Value added taxes, for instance, have been increased by 4 percentage points in Greece, by 3 points in Portugal and 2 points in Spain, giving rise to concerns about their adverse impacts on the poor, who spend the largest proportion of their income on consumer goods and services. Income tax, on the other hand, has been increased by much fewer countries. Some countries increased income tax imposed on the upper income groups or industry (e.g. in the United Kingdom, the Government's one-off bank payroll tax in 2010 and a number of other measures aimed at high-income earners), but other countries lowered their corporate taxes, and higher taxes imposed on the financial sector occurred with only 25 per cent frequency (OECD, 2011).

Overall, the fiscal measures have tended to cut spending and increase taxes on items that would most likely have a negative impact on income distribution, and as a result they might have a further negative effect on the already feeble recovery, since lower income groups have a higher propensity to spend.

2. Fiscal tightening without a previous stimulus: the rationale for procyclical fiscal policies

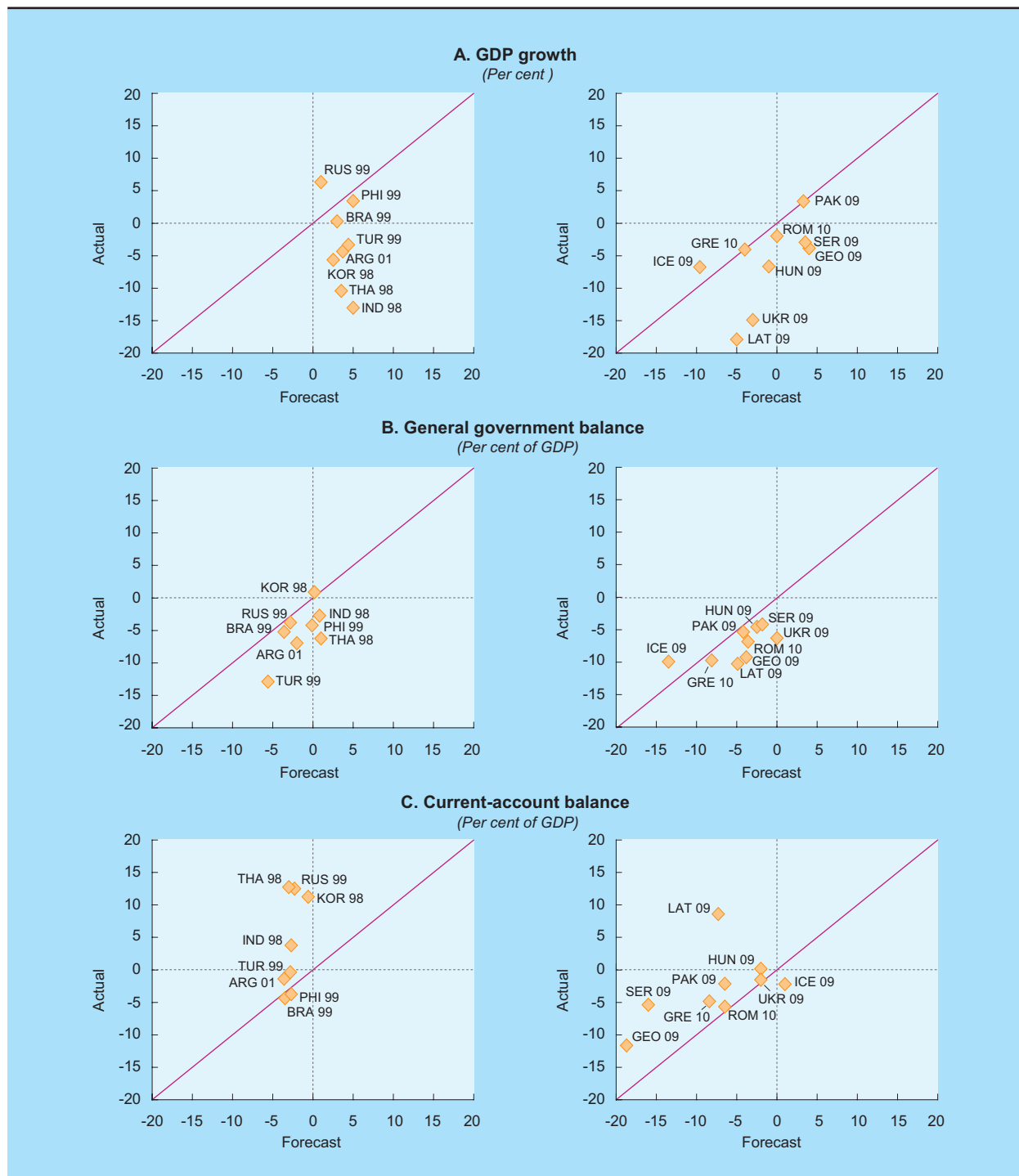
When the crisis erupted, a number of European and transition economies that were among the most seriously affected turned to the IMF for emergency financing. Although at the time the IMF approved of countercyclical fiscal policies, in most of these countries the programmes it supported entailed fiscal adjustment, as has been typical of its conditionality. Hence fiscal restraint was required without a previous injection of fiscal stimulus aimed at limiting the impact of a crisis that, in general, was not caused by fiscal deficits, as discussed earlier. Given the pressure on financial markets, no fiscal space was assigned to those countries by creditors.

In order to obtain IMF support, countries are expected to adjust their current-account deficits by reducing domestic absorption (including fiscal retrenchment), which normally slows GDP growth. Those eventual impacts are evaluated by IMF staff, and reflected in a letter of intent (LOI) signed by the governments concerned. These LOIs contain economic forecasts and goals to be reached by the countries. It is interesting to compare their short-term forecasts (for the year following the signature of the LOI) with the actual results of the IMF-supported programmes. Chart 3.2 presents these data for countries that resorted to IMF assistance because of a financial crisis in two periods: the late 1990s and early 2000s, and the present crisis. The data show similar patterns. The crisis-recovery packages recommended by policymakers, including the IMF, during both episodes present a systematic overestimation of the private sector's ability to recover, or an underestimation of the time taken for investment and consumption to return to previous levels. There is also a divergence between the estimated GDP growth rate during post-crisis periods on the horizontal axis (calculated by the IMF on the assumption that countries would implement the proposed policies) and the GDP growth that actually occurred (vertical axis). A 45 degree line running through the graph indicates what would be a one-to-one mapping between estimate and experience. All countries are located to the right hand side of that line (or on the line), with the exception of the Russian Federation in the late 1990s and Iceland in the late 2000s (where debt default occurred), indicating that outcomes systematically failed to live up to expectations. In some cases, the gaps are sizeable: in 1998, a GDP growth of 5 per cent was forecast for Indonesia, but in fact it experienced minus 13 per cent growth; Thailand was expected to achieve 3.5 per cent growth, but growth actually contracted by 10.5 per cent; and the Republic of Korea was expected to achieve 2.5 per cent growth but it actually recorded minus 5.7 per cent. In recent years, growth outcomes have been overestimated by more than 5 percentage points in Georgia, Hungary, Latvia, Serbia and Ukraine.

There are also systematic differences between LOI forecasts and actual outcomes with regard to current-account and fiscal balances. There is a clear bias towards underestimating current-account adjustment, while the LOI are overly optimistic in their forecasts for fiscal consolidation. It appears that fiscal adjustments and GDP contraction were excessively

Chart 3.2

**COMPARISON BETWEEN FORECASTS OF GDP GROWTH, FISCAL BALANCES AND
CURRENT-ACCOUNT BALANCES IN IMF-SPONSORED PROGRAMMES
AND ACTUAL VALUES FOR SELECTED COUNTRIES**



Source: IMF, Letters of Intent, available at: <http://www.imf.org/external/np/cpid/default.aspx>; and UNCTAD Globstat.

Note: The years refer to the year following the Letter of Intent signature.

ARG 01: Argentina, 2001; BRA 99: Brazil, 1999; GEO 09: Georgia, 2009; GRE 10: Greece, 2010; HUN 09: Hungary, 2009; ICE 09: Iceland, 2009; IND 98: Indonesia, 1998; LAT 09: Latvia, 2009; PAK 09: Pakistan, 2009; PHI 99: the Philippines, 1999; KOR 98: the Republic of Korea, 1998; ROM 10: Romania, 2010; RUS 99: the Russian Federation, 1999; SER 09: Serbia, 2009; THA 98: Thailand, 1998; TUR 99: Turkey, 1999; UKR 09: Ukraine, 2009.

severe in order to achieve the desired adjustment in the current account; or that the architects of the programmes did not expect these costs to be so high in those countries.

Misjudging the effects of fiscal tightening seems to be the rule rather than the exception in IMF-backed programmes. A detailed examination of fiscal adjustment in 133 IMF-supported programmes in 70 countries carried out by the IMF's Independent Evaluation Office (IEO) notes that there was "a tendency to adopt fiscal targets based on over-optimistic assumptions about the pace of economic recovery leading inevitably to fiscal under performances" and "over-optimistic assumptions about the pace of revival of private investment." The report observes that "a more realistic assessment in certain circumstances could have justified the adoption of a more relaxed fiscal stance on contracyclical grounds" (IMF, 2003: vii).

In country after country where fiscal tightening was expected to both reduce the budget deficit and boost investment and economic growth, the opposite happened. Private sector demand and investment, in particular, responded much more sluggishly than the IMF had expected. In addition, fiscal balances, on average, failed to improve during the first two years of the fiscal adjustment programmes, even though this was an explicit goal of those programmes. The main reason for the shortfalls in countries that made large fiscal adjustments was that government revenues fell far below expectations. On the other hand, the spending cuts were on target.

This record of failed IMF-sponsored adjustment programmes suggests that they are based on a fundamental macroeconomic misconception. The conceptual basis is not quite clear. The majority of programmes reviewed by the IMF-IEO did not explain the links between the targeted fiscal adjustment and the envisaged improvement in the external situation, or the assumptions driving the projected recovery of private spending and how it was linked to the fiscal policies recommended. Indeed, there seems to have been "surprisingly little rationale" for

the fiscal tightening policies that were recommended in most of these programmes. One implicit assumption seems to be that "private investment demand is buoyant and fiscal contraction creates room for private investment to be financed" (IMF, 2003: 6), meaning that the public and private sectors are in competition with each other for the use of productive resources – even during severe recessions – and that public sector expenditure crowds out investment by the private sector. Another implicit assumption appears to be that fiscal tightening is the key test of a government's determination to honour its debts, and is therefore necessary for "a quick return of investor confidence and a rapid pickup in growth." In this view, the pace of recovery of private sector demand, and particularly investment, "depends on investor confidence and financial market conditions, which in turn are a function of the perceived degree of commitment of the authorities to adhere to the program" (IMF, 2003: 111).

The conflicting views about whether public spending should be seen as a substitute for, or as a complement to, private sector spending, revolve around the "crowding-out" debate. For those who believe in crowding out effects, increases in government spending reduce private expenditure. In this case, either supplementary spending is financed with borrowing and leads to a higher interest rate which lowers investment and consumption, or the government opts to raise taxes to bridge the fiscal gap, which reduces private disposable income and demand. Hence, public stimulus will be irrelevant at best, and may even be counterproductive if it raises concerns among private investors. Theoretical models supporting this view have been criticized for their unrealistic assumptions – such as perfect foresight, infinite planning horizons, perfect capital markets, and an absence of distribution effects through taxation – which make them unsuitable for policy decisions in the real world. In particular, their starting point usually assumes full employment, when the discussion is precisely how to recover from an economic slump. Even in more normal times, however, the empirical evidence for crowding out is weak at best (see box 3.1).

IMF-sponsored programmes have systematically overestimated economic recovery and fiscal consolidation.

Box 3.1**FISCAL STIMULUS AND CROWDING OUT**

The view that a fiscal stimulus will fail to boost aggregate demand is based on the notion that expansionary public policies will necessarily reduce private expenditure, thus nullifying the stimulus that was intended.

In order to clarify the argument, it is useful to start by defining fiscal stimulus as an increase in public expenditure not matched by an increase in taxes, or a cut in taxes not matched by a fall in public expenditure. Either of these would deteriorate the fiscal balance and could increase the fiscal deficit.

One argument for the ineffectiveness of fiscal policy is that a higher budget deficit will require the issuance of government bonds, which in turn will increase the interest rate and crowd out private investment. The magnitude of this crowding out depends on many factors, and there is a consensus that crowding out is unlikely to occur in periods of slack demand and low global interest rates.

An alternative argument for the inefficiency of fiscal policy is based on the idea that an increase in debt will lead to higher taxes in the future, and that forward-looking individuals may want to increase their savings in order to be able to pay future taxes (Barro, 1974). Thus a higher deficit would lead to a direct reduction of consumption, and it would have no impact on the level of economic activity.

According to these views, even if a fiscal stimulus were to increase public demand or private disposable income, two different factors may counterbalance the expansionary public stance: higher interest rates due to public net borrowing, which will hinder private investment, or higher private savings on the expectation of future tax payments. Both these assumptions are problematic. Regarding the first argument, even a relatively large increase in government borrowing is unlikely to push interest rates up, because this increase would still be marginal compared with the total amount of assets in the capital market, and it would come at a time when private borrowing is falling because of recession. Moreover, even if interest rates were raised, the debt-financed government spending would cause aggregate demand – and thus the willingness to invest – to grow. In that case, there would be two effects working in opposite directions, but whereas the demand effect is certain, the interest effect is not, especially as it can plausibly be assumed that if debt-financed government spending were to increase, the central bank would embark on monetary easing and lower interest rates.

The second assumption supposes that agents, aware of the intertemporal government budget constraint, would expect that an increase in the fiscal deficit financed by debt will lead to future tax increases, and that consequently they will restrain their present spending. This assumption of behaviour is based on the rational expectation hypothesis, market clearing logic and other stringent assumptions, including perfect credit markets, perfect foresight, lump sum taxes and infinitely-lived agents or intergeneration links among all agents. All these unrealistic assumptions should make policymakers cautious about policy recommendations derived from this hypothesis (known as the Ricardian Equivalence Theorem in the literature). In addition, an implicit assumption is that private agents do not expect the government to seek monetary financing from the central bank – instead of raising taxes – for future debt services. If they did so, following the theorem's logic, potential taxpayers would have no reason to increase their savings rate. More fundamentally, the very starting point of Barro's reasoning that public debt must be repaid is far from evident. In general, public debt that is reaching maturity is rolled over or replaced by new debt, since what rentiers seek is to perceive a reasonable return on their capital rather than recovering it.

Furthermore, this theorem completely ignores the dynamic effects of fiscal stimulus policies, especially in an economy with low level of production capacity utilization. In that case, an increase in fiscal expenditure will generate new demand and greater output, which in turn will boost both private income and fiscal revenues. In such a situation, it is more likely to have a crowding-in outcome, as a result of supplementary public expenditure inducing higher private demand, than a crowding-out effect. Even if the stimulus

Box 3.1 (concluded)

package leads to a higher fiscal deficit and public debt in the short run, this is not a sufficient reason for the private sector to curb its spending, since it can rationally expect its income, and thus the tax base, to grow as a result of the expansionary effect of the spending increase. Moreover, the debt-to-GDP ratio will normally tend to fall with economic recovery, and future generations will inherit not only that debt, but also the productive capacity it contributed to financing.

Empirical evidence on the alleged crowding-out effects of deficit spending is weak. Aschauer (1989) indicated for the United States that public investment had an overall crowding-in effect on private investment, and that public and private capital could be seen as complementary. Eisner (1995; 2006) showed that in the United States and all other OECD countries fiscal deficits – cyclically and inflation-adjusted – tend to reduce unemployment and have a positive effect on output and investment. Also, he found no significant effect on prices.

Regarding the effects of fiscal deficits on interest rates, Gale and Orszag (2003) found that in the United States these effects were positive, but economically insignificant. Laubach (2004) showed that for the G-7 countries, except France, the coefficients on the deficit-to-GDP ratio were either insignificant or implied that deficits actually reduced real long-term interest rates, as in Germany and Japan. In reviewing the relevant literature on the issue, IMF economists Hemming, Kell and Mahfouz (2002: 36) concluded that “there is little evidence of direct crowding out or crowding out through interest rates and the exchange rate. Nor does full Ricardian equivalence or a significant partial Ricardian offset get much support from the evidence.” Angeriz and Arestis (2009) reached a similar conclusion.

3. The special case of natural-resource-rich countries

The IMF is also pushing for fiscal tightening in fast-growing developing countries with low levels of public debt, on the grounds of avoiding overheating rather than of lowering high debt ratios (IMF, 2011b). In particular, it argues that governments benefiting from sizeable fiscal revenues owing to high commodity prices should refrain from increasing public spending, and instead should reconstitute financial buffers to be used in times of falling or low commodity prices (IMF, 2011a).

Of course, based on the logic presented in the previous section, it is not clear that fiscal adjustments would actually deliver countercyclical effects (i.e. slowing down rapid economic growth), because they could further boost investors' confidence and crowd in more private investment. However, it is true that economic authorities in natural-resource-rich countries face specific challenges in their management of fiscal policy, especially in developing and transition

economies where a significant share of government revenues originate from their extractive industries. This subsection examines these challenges.

One of the challenges relates to the high price volatility of hydrocarbons and mineral resources, which makes government revenues uncertain and unstable, and may lead to boom and bust cycles in expenditure. Another challenge is that, since natural resources are exhaustible and will eventually be depleted, fiscal authorities also need to address issues of long-term fiscal sustainability and intergenerational distribution of the proceeds of the natural resources. In addition, macroeconomic management in these countries may be complicated by Dutch disease problems, as the foreign exchange earnings from extractive industries' exports may lead to an appreciation of the currency, which would result in a loss of competitiveness of other non-resource-based sectors of the economy, such as some agricultural activities and manufacturing.

The dependence of fiscal balances on revenues from natural resources is particularly high in many

West Asian and African oil-exporting countries, where they often exceed 70 per cent of total fiscal revenues.⁵ Moreover, the importance of natural resources for fiscal revenues in these countries seems to have been increasing during the years of the commodity boom (Torre, Sinnott and Nash, 2010; OECD, 2010).

Governments of natural-resource-rich countries are confronted with difficult choices in their fiscal policies. First of all, in order to have the fiscal space necessary for pursuing countercyclical fiscal policies and meeting their development objectives, they need to secure an adequate share of the rents from their primary resources. Thus, fairness in the distribution of these rents between the government and the private sector (often foreign transnational corporations) should be guaranteed (*TDR 2005*, chapter III and *TDR 2010*, chapter V). During the commodity price boom of 2002–2008 a number of commodity-exporting countries revised their fiscal regimes. This process of changing the taxation of extractive industries may have been interrupted, or even reversed in some cases, when the global financial and economic crisis began, as the bargaining power of governments vis-à-vis the transnational mining and oil corporations was weakened. With the renewed price increases in 2010–2011, some governments are once again attempting to revise those regimes.⁶

Once a government receives the revenues from natural resource exploitation, it has to decide on the respective shares to be spent and saved, either for macroeconomic stabilization purposes for use in bad times, or for future generations. The share earmarked for expenditure can either be used for current consumption or for capital investment. These choices will have different implications for long-term growth and development. For example, capital expenditure may improve infrastructure and expand productive capacity in the country, and thus facilitate diversification and structural change and reduce commodity dependence. Current expenditure on education and health can also make a significant contribution to growth by increasing labour

Natural-resource-rich countries are vulnerable to price volatility and should create space for countercyclical policies.

A significant share of the proceeds from natural resource exploitation should finance public infrastructure and social services to achieve diversification and structural change.

productivity. To the extent that all these expenditures increase productive capacity, they will also benefit future generations. Using government revenues from the extractive industries to increase public investment, for instance in infrastructure, would also be a way of increasing the productivity and competitiveness of the non-resource sectors of the economy. Finally, expenditure can be directed to imports or to domestic goods, which may also provide some stimulus to domestic supply. However, expenditure on imports of capital goods and technology may be particularly necessary in the poorest countries to promote long-term development.

Since natural-resource-rich countries are particularly vulnerable to external factors, the countries that do not exercise countercyclical fiscal policies tend to endure strong economic fluctuations. Indeed, in these countries, automatic stabilizers that could help counter external shocks are usually weak or totally missing. When commodity prices fall, government resources diminish, which normally impacts public expenditure and economic activity. In this case, deterioration of the fiscal balance is not due to lower taxes paid by nationals or, for example, to higher transfers to the unemployed; it is simply due to declining public revenue resulting from reduced income from exports. Hence, fiscal deficits lack any significant automatic stimulus element. Similarly, during periods of high commodity prices, increases in public revenues do not have any restrictive effect on domestic demand, because they do not take away income from domestic taxpayers. In other words, these countries cannot rely on automatic stabilizers, and must therefore set policy rules and mechanisms for creating space for countercyclical policies.

The negative impact of instability in government revenues due to the volatility of commodity prices can be alleviated through fiscal rules, conservative assumptions in the budget regarding future prices of the commodities concerned, and commodity stabilization or savings funds. In order to fulfil a countercyclical purpose, the funds would work in such a way that in good times,

when prices are high, resources would be deposited in the fund for release during bad times when prices fall. Funds deposited abroad would help avoid an appreciation of the exchange rate, in addition to providing a reserve for macroeconomic stabilization or spending by future generations.

The priorities of fiscal policy in natural-resource-rich countries will differ depending on the level of development. In high-income countries, policies favouring intergenerational equity and stabilization may be of greater importance. In Norway, for example, oil revenues are deposited in the government pension fund, and the returns from the investments in this fund, estimated at 4 per cent, are spent over time (NORAD, 2009). In middle-income developing countries, such as Chile, macroeconomic stabilization may also be a relevant goal; indeed stabilization funds facilitated countercyclical policies during the crisis in that country.

However, in the lower income countries, which have pressing needs in terms of poverty reduction and development, withdrawing most of the funds from the economy to be invested in financial assets abroad does not seem to be the most appropriate option. Rather, using a significant part of the proceeds from natural resource exploitation for public investment

in infrastructure, for improvements in education and health and for the provision of basic social services may provide better returns. If successful, this could bring about diversification and structural change, which in turn would lead to an expansion of the tax base and therefore reduce government dependence on revenues from commodities. Nevertheless, these countries would still need to withdraw part of the revenues to provide them with the financial means for implementing countercyclical policies and smoothing expenditure.

The strong impact of the global financial and economic crisis on natural-resource-dependent countries has highlighted the importance for these countries to pursue countercyclical fiscal policies. Moreover, it has become even more evident that they need to diversify their production and export structure in order to reduce their dependence on the revenues obtained from only a small basket of commodities, the prices of which are highly volatile. In this context, it is important to integrate policies relating to the extractive industries into national development strategies aimed at transforming their natural resource base into physical capital, generating new employment opportunities and promoting human development. This in turn will reduce their fiscal vulnerabilities and expand their fiscal space.

C. Qualitative and quantitative aspects of fiscal space

An apt definition of fiscal space is that the public sector's budget provides sufficient financing for a desired purpose without reducing the sustainability of the public accounts (Heller, 2005; Ostry et al., 2010). Heller emphasizes revenue creation and reprioritization of spending and borrowing on a sustainable basis as the main means of creating fiscal space. While these are possible ways, monetary and other aspects of fiscal policy can also make a significant contribution, because both affect the government's revenue stream, and therefore have an

impact on sustainability. This is why trying to find a critical level of debt, beyond which solvency would be compromised, without considering the dynamic effects of other macroeconomic policies is a futile endeavour. This section highlights the need for a dynamic definition of fiscal space, while showing that other factors, such as monetary policy and the international financial environment, might also be relevant for creating that space. The section also includes a discussion of the types of fiscal policies that would be more conducive to enlarging fiscal space.

1. *A dynamic and comprehensive view of fiscal space*

When the global financial crisis began, it seemed relatively clear that governments in both developed and developing countries had sufficient fiscal space to cope with the economic downturn. Although initially there was significant consensus that an expansionary fiscal policy was needed to overcome the crisis (Spilimbergo et al., 2008), the increasing levels of debt have caused a rapid shift of opinion towards favouring fiscal tightening to avoid the perceived risks resulting from higher levels of public debt. This view is in line with conventional wisdom, which tends to suggest that, just as families cannot spend more than they earn, governments too should mind their purses.

However, if every economic agent curbs spending, the flow of income will fall. Unless some other agent is willing to spend, “tightening the belt” becomes counterproductive for the economy as a whole. By definition, income can only be generated if somebody spends. In the context of a deep depression, only the government can increase spending in domestic currency and reverse the downward spiral of less spending and reduced income and employment. Further, since a certain amount of spending takes place on the basis of credit, there is a relationship between expenditure and debt for the economy as a whole, with part of the debt being private (families and firms) and the other part public. If private debt falls and all else remains constant, spending will have to fall. In that case, public debt will have to be increased in order to support spending, and it can only be reduced once the private ability to increase indebtedness has been re-established.

If government spending has an effect on economic activity, which, as a result leads to higher growth rates than increases in indebtedness, the debt-to-GDP ratio will tend to fall (Barba and Pivetti, 2009). Higher fiscal expenditure does not necessarily translate into an equivalent increase in the primary fiscal deficit, because it may also generate some fiscal revenues. However, it is necessary to assess the evolution of interest rates on public debt, which some analysts link to the level or the evolution of that debt.

In other words, the overall impact of fiscal stimulus measures on the fiscal deficit and growth needs to be evaluated. If their impact on growth is greater than their immediate impact on the overall fiscal balance, then the government does not have a solvency problem, even if the deficit is large in the short run. The question of sustainability of public debt is therefore central to any discussion concerning the appropriate fiscal policy, and the variables that determine sustainability, fiscal deficits, GDP growth and interest rates on public debt are central to an understanding of fiscal policy.

Interest rates on public debt are affected by monetary policy, since they tend to fall when the central bank reduces the short-term interest rate. This is to be expected, since government bonds, bills and other low-risk assets still pay a liquidity premium vis-à-vis the basic monetary rate. However, unless there is reason to believe that these assets pose an additional risk, the liquidity premium should not change, and the bond and bill rates should follow approximately the ups and downs of the basic rate.

The central bank can also directly intervene in the bond markets and influence the long-term interest rate. Quantitative easing is used when setting the short-term interest rate is insufficient to affect economic spending, and therefore the central bank directly targets the long-term rate. In that case, the central bank buys government bonds in secondary markets, signalling that interest rates will remain low with the aim of stimulating spending (Bernanke and Reinhart, 2004).

More importantly, lower long-term interest rates imply lower levels of debt service for the public sector, thereby increasing the fiscal space, since resources allocated to interest payments can then be used for other purposes. In this sense, quantitative easing underscores the strong interdependence between monetary and fiscal policy. Fiscal policy is more efficient when short-term nominal interest rates reach their lower zero bound limit (Christiano, Eichenbaum and Rebelo, 2009; Woodford, 2011); but also monetary policy aimed at maintaining lower rates on long-term government debt provides an essential lever for improving the efficiency of fiscal policy.

2. Interest rates and fiscal space

As discussed in chapter II of this *Report*, to a large extent debt-to-GDP ratios respond to the interaction of interest rates and output growth. In this sense, it is possible for economies with persistent fiscal deficits to have a sustainable – and even a declining – debt-to-GDP ratio if the rate of interest is consistently lower than the rate of growth (Pasinetti, 1997; Roubini, 2001). This is the basis for what Keynes referred to as the “euthanasia of the rentier”, whereby low rates of interest allow fiscal expansion on a sustainable basis.

During the post-war boom period, low interest rates permitted fiscal expansion for recovery and for the creation of the Welfare State in European and other developed countries, as well as for infrastructure building and a considerable amount of catching up by the developing world. This period is often referred to as the “Golden Age of Capitalism” (Marglin, 1990). The evolution of interest rates dynamics saw two important breaks. In the first break, starting in the late 1970s and early 1980s, there was a sharp increase in interest rates, which led to a reversal of the debt dynamics. The second, which took place in the early 2000s, relates to the lower rates of interest, on average, in developed countries.

After the first break, for the most part real interest rates were higher than the rate of GDP growth in developed countries (e.g. Germany, Japan and the United States), as well as in Latin America (e.g. Mexico), Eastern Europe (e.g. Poland), and sub-Saharan Africa (e.g. South Africa), but not in the Asian economies (e.g. China and the Republic of Korea). In the subsequent phase, between 2001–2003 and the Great Recession, there was a reversal (chart 3.3), with real interest rates lower than growth rates in almost all countries in the chart. And despite the brief fall in GDP, this trend has continued to the present day.

This suggests that, while debt-to-GDP ratios increased in developed countries as a result of high interest rates until the turn of the century, thereafter, despite a significant fall in interest rates, those ratios continued to increase because of the Great Recession. This resulted in reduced growth and increased fiscal deficits. On the other hand, in Asia debt-to-GDP ratios have been under control, even though both the Asian

crisis and the Great Recession put pressure on fiscal balances. In other words, the lower rates of interest in Asian countries allowed them greater fiscal space.

In Latin America, sub-Saharan Africa and Eastern Europe, debt sustainability was achieved through a combination of significant expansionary fiscal adjustments (i.e. growth in spending accompanied by rising revenues). These adjustments were made possible by achieving and maintaining primary surpluses for extended periods, by debt renegotiations that reduced the debt overhang, and, in recent years, by relatively rapid economic growth. In that sense, monetary policy was less critical for the creation of fiscal space in those regions.

In part, the problem of higher interest rates in some developing countries is associated with the difficulties of dealing with volatile capital flows and the need to prevent capital flight. Also, in some countries, particularly in Latin America the interest rate is maintained at higher levels as an anti-inflationary policy instrument.

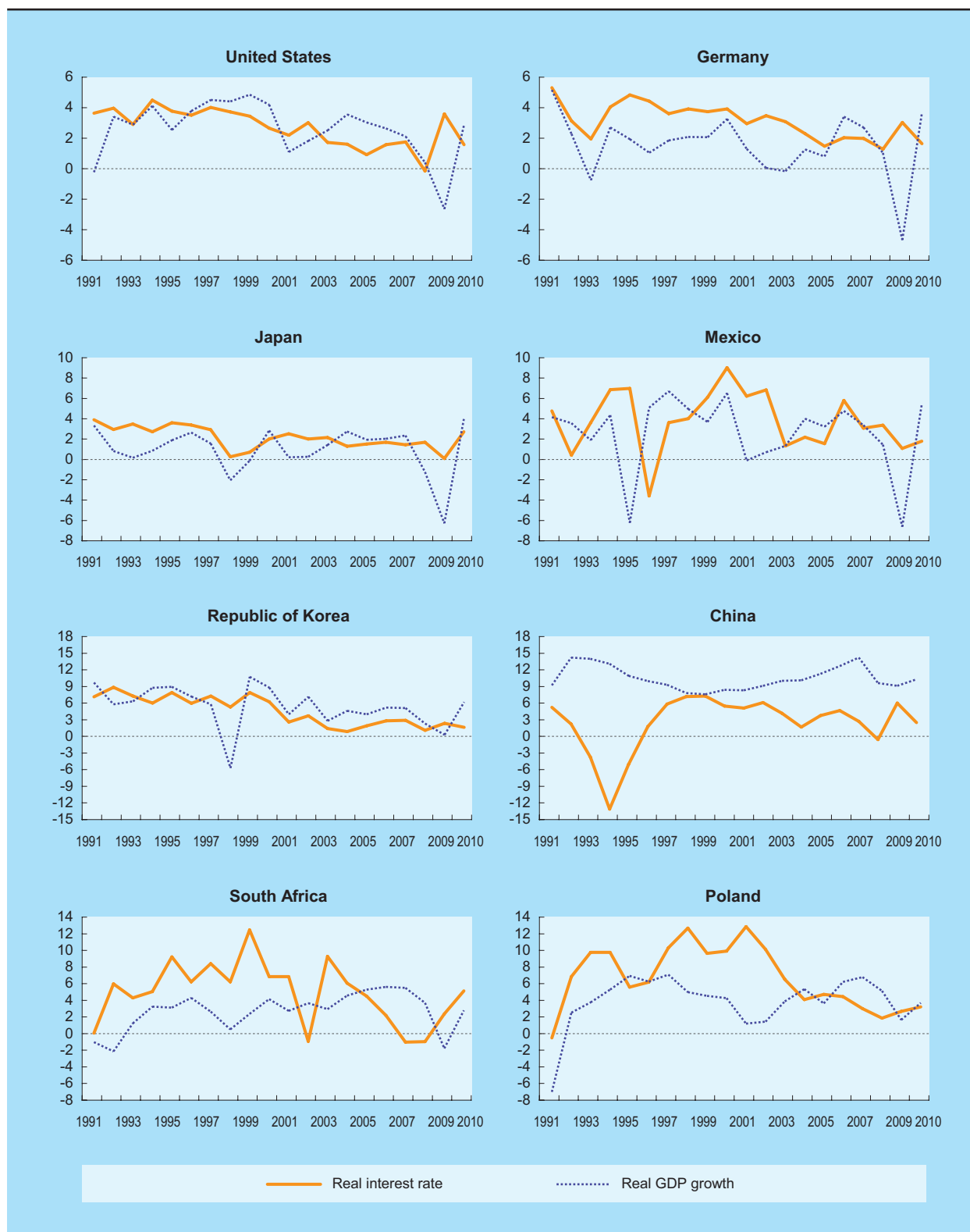
The crisis has created higher levels of public debt in many developed economies. However, it is not clear that these levels are unsustainable, and whether fiscal policy should become contractionary if economic recovery and low real interest rates are sufficient to maintain the debt-to-GDP ratio on a stable path. To a large extent, central banks around the world control the rate of interest, and there is no justifiable reason for raising interest rates when global recovery is still fragile. If inflationary pressures not directly associated with excess demand develop, there are alternative policies that might be used to deal with the problem, such as an incomes policy (*TDR 2010*). Even in countries where a perceived solvency risk has led to a rise in interest rates, efforts should be made to keep the rates down to moderate levels, because very high rates will not induce a return to voluntary lending. In order to limit a rate increase, extraordinary measures that provide credit at lower rates should be sought, as discussed in the next section.

In sum, monetary policy is an essential instrument, not just to promote the level of activity while maintaining stability, but also to create the necessary space for fiscal policy. There are good reasons to believe that monetary policy should continue to create fiscal space by maintaining low interest rates in a two-speed global recovery in which developed countries

Chart 3.3

REAL INTEREST RATE AND REAL GDP GROWTH, SELECTED COUNTRIES, 1991–2010

(Per cent)



Source: UNCTAD secretariat calculations, based on UNCTADstat; IMF, *International Financial Statistics* database; and sources for table 1.1.

such as Japan, several European countries and the United States face a sluggish recovery, and developing countries remain steadfast on their catching up path.⁷ However, particularly when interest rates are low, or at the lower zero bound level, and demand for credit remains weak, as is normally the case after a financial crisis (Corsetti, Meier and Müller, 2010), fiscal policy should bear full responsibility for promoting output growth. In that respect, the way the public sector spends and collects revenue becomes an essential ingredient.

3. Functional finance and fiscal multipliers

An important qualitative aspect of fiscal space is that the way in which the public sector spends and taxes is not neutral; different policy choices allow resources to be committed to specific objectives and they generate different macroeconomic outcomes (see box 3.2). This approach has sometimes been referred to as “functional finance”, since it concentrates on the functions of spending and taxing in the economy, rather than suggesting, a priori, that all types of fiscal intervention have similar effects (Berglund and Vernengo, 2006).

In principle, as noted by Spilimbergo et al. (2008), spending should have an immediate advantage over tax cuts in stimulating the economy, simply because it directly leads to increased purchases and demand, while tax cuts require that economic agents spend the proceeds of their reduced tax payments. This is particularly true when the private sector is highly indebted, since it would then use part of the tax proceeds for repaying outstanding debts rather than for consumption and investment.⁸ Further, it would be expected that in a relatively open economy some of the effects of both government spending and tax cuts would leak to the foreign sector, in which case a concerted global effort would certainly work more efficiently. Indeed, the evidence seems to corroborate this view (Ilzetzki, Mendoza and Vegh, 2010).

Furthermore, some types of expenditure are bound to have not only larger spending multiplier

effects (i.e. more additional spending for each dollar spent by the public sector), but also larger employment multiplier effects (i.e. more workers hired for the same amount of money spent). Therefore, spending in sectors with larger employment multiplier effects seems more appropriate for promoting recovery. Besides the obvious social advantages of increasing employment, this type of expenditure, by reducing spending on a safety net for the unemployed, frees up resources for other purposes, thereby increasing fiscal space.

Moreover, social spending in such areas as unemployment benefits, education, health, housing, pensions and other benefits for low-income groups seems to be a rational way to promote recovery as it allows levels of consumption to be maintained during a crisis. In addition, it reduces poverty levels and increases productivity. All of these enable more spending and lead to higher rates of economic growth. Lindert (2004) refers to this kind of social spending that has a positive effect on long-term growth as the “free lunch” paradox. This suggests that income distribution considerations should be part of fiscal policy.

The way taxes are levied can also be an important instrument for dealing with recessions without creating an unsustainable increase in public debt. Lowering social contributions, which tend to have a regressive impact, should, in principle, generate higher income than corporate tax cuts. Zandi (2008) suggests that the evidence for the United States backs this proposition. Reductions of sales and value added taxes, if passed on to prices, would also have a relatively significant effect on the level of activity. Similarly, income tax cuts should be targeted at the lower income groups that have a higher propensity to spend.

Beyond the question of how expenditures and taxes are implemented, which may or may not enhance the fiscal space, the overall economic context in which fiscal policy is implemented is also important in determining the size of the multiplier. Ilzetzki, Mendoza and Vegh (2010) highlight the importance of a managed exchange rate regime that avoids a significant currency appreciation, as such appreciation would weaken the positive effects of

Social spending and public investment have larger multiplier effects on GDP and employment than tax cuts.

Box 3.2

FISCAL MULTIPLIERS

Fiscal multipliers are hard to measure because of the endogeneity of fiscal variables and the difficulty of obtaining reliable instruments for exogenous spending and tax changes.^a There are fundamentally two methods for estimating fiscal multipliers: the structural macroeconomic model in the Cowles Commission tradition, which incorporates the main elements of the Keynesian Revolution; and the atheoretical, vector autoregressive (VAR) model, where the specification is determined purely on the basis of available data.

The essential difference is that the old macroeconomic model specifies the estimation on the basis of a theoretical model and is concerned with measuring coefficients, while the VAR does not impose many restrictions on parameters. The VAR is associated with the development of real business cycles theories and has been incorporated in the new Keynesian Dynamic Structural General Equilibrium (DSGE) model, which assumes that the business cycle can be seen as a deviation from the trend. Booms and busts are temporary, and agents with rational expectations know this. There is a strong assumption that the economic system will return to equilibrium after a shock. In other words, the VAR was essentially developed to analyse exogenous shocks to autoregressive mean-reverting series. Not surprisingly, the old structural macroeconomic model tends to predict higher values for policy multipliers.

The table below presents some recent results compiled from the growing literature on the effects of fiscal policy on the level of activity, using both methods. All the studies show a range of multipliers, which depend on several aspects: spending and tax multipliers, the monetary policy stance, the exchange rate regime and the existence of a financial crisis. Hall (2009), Corsetti, Meier and Müller (2010), Ilzetzki, Mendoza and Vegh (2010), and UNCTAD's estimates use a VAR methodology. These VAR estimates for the United States from 1980 to 2010 find a range of multipliers, from 0.71 (for tax cuts) to 1.87 (for spending), which are fundamentally in line with other results in the literature. The only significant difference is that other works using VAR do not differentiate between tax cuts and spending increases.

TAX AND SPENDING MULTIPLIERS

Study	Method	Period	Coverage	Approximate results	
				Tax cut	Spending
Zandi (2008)	Structural model (SM)	Indeterminate	United States	0.3 to 1.26	1.36 to 1.73
Hall (2009)	VAR	1930 to 2008	United States	–	0.5 to 1.7*
OECD (2009)	SM	Indeterminate	OECD countries	0.6 to 1.0	0.9 to 1.3
Corsetti Meier and Müller (2010)	VAR	1975 to 2008	17 developed countries	–	0 to 1.5*
Ilzetzki, Mendoza and Vegh (2010)	VAR	1960 to 2007	44 countries (20 developed; 24 developing)	–	0 to 1.5*
Fair (2010)	SM	1960 to 2010	United States	1.0	2.0
CBO (2011)	SM	Indeterminate	United States	0.2 to 1.5	0.7 to 2.5
UNCTAD**	VAR	1980 to 2010	United States	0.71	1.87

* Multipliers for overall fiscal policy, including changes in taxes and spending.

** UNCTAD secretariat calculations for this Report.

Box 3.2 (concluded)

The OECD *Economic Outlook* (OECD, 2009) reports fiscal multipliers based on the OECD global model that range from 0.9 (after one year) to 1.3 (after two years) for government expenditure, and from 0.6 to 1 for tax cuts (after one and two years, respectively). The study also reports data from several national models, and shows a higher multiplier for spending (1.1 on average, after one year) than for tax cuts: between 0.3 on average for corporate tax cuts and 0.5 for personal income or indirect tax cuts. The study's analysis also suggests that the size of the multiplier varies significantly from country to country.^b

Fair (2010), using the Cowles Foundation model shows that for the United States in the period starting in 1960, multipliers for spending were at around 2, while those for cut taxes were half that size. These are essentially in the same range as the estimates presented by the Congressional Budget Office (CBO, 2011), which shows multipliers ranging from 0.7 (low estimate) to 2.5 (high estimate) for government purchases of goods and services – much higher than those resulting from temporary tax cuts for higher income brackets (0.2 to 0.6) or even income tax cuts for low- and medium-income levels (between 0.6 and 1.5). The CBO uses the estimates from the Macroeconomic Advisors and Global Insight private models, and the FRB-US model used by the United States Federal Reserve Board.

It is noteworthy that almost all the models suggest, as expected, that an expansionary fiscal policy has a positive effect on the level of economic activity. Further, the weight of the evidence indicates that spending multipliers tend to be larger than tax cut multipliers, and that tax cuts benefiting lower income households have a stronger effect than those benefiting high-income households.

^a Reliable instruments are variables that are correlated to the endogenous explanatory variables, but not with the error term of the equation.

^b These models cover Belgium, Canada, the euro area, France, Germany, Italy, Japan, Portugal, Spain, the United Kingdom and the United States.

fiscal expansion.⁹ Such a regime would also reduce leakage of domestic demand to foreign markets. In other words, central bank policy, by managing not only the interest rate but also the exchange rate, is an essential element for expanding the fiscal space available to the public sector.

In this context, fiscal space tends to be smaller in countries that are more vulnerable to speculative capital flows. To the extent that volatile capital flows force these (typically developing) countries to maintain higher interest rates at home, fiscal policy may turn out to be less effective than in developed countries which can set interest rates with an eye on the domestic economy. However, as noted by Ocampo (2011), self-insurance measures against financial volatility, including but not limited to the accumulation of foreign reserves and capital controls, have created space for fiscal expansion in developing countries. This is

precisely because they have contributed to increasing the degree of monetary autonomy, thus allowing lower interest rates to support fiscal expansion. In this sense, it seems relevant to compare countries that managed to avoid significant real exchange rate appreciation before the Great Recession, and used monetary policy to accommodate fiscal expansion (e.g. Argentina, China), and those that were unable to do so (e.g. Greece, Ireland and Portugal). Further, in developed countries, where the bursting of the financial bubble was central to the unfolding of the Great Recession, the amount of resources utilized for rescuing financial institutions was much larger relative to the size of their economies than in developing countries (as noted in the previous chapter). It is therefore reasonable to assume that financial rescue packages, which might be important for preventing the collapse of financial markets, have a limited effect on the level of economic activity. Hence, financial

conditions not only affect the size of the fiscal space; they may also influence the way it is used and its impact on economic recovery.

In sum, fiscal space depends not just on how fiscal policies are implemented, but also on how well those policies are supported by monetary policy and by the national and international financial environment. This is in addition to considerations of the political viability of the policy changes. If fiscal space is an issue in the design of countercyclical macroeconomic policies, this should be taken into account not when it has allegedly reached its limit, but at the outset (i.e. when decisions are taken on fiscal stimulus measures), because demand and fiscal feedback effects differ widely depending on which specific expenditures or taxes are changed. An optimal combination

An expansionary fiscal policy may be more likely to reduce the deficit and public debt ratio than a restrictive one.

of such changes would achieve a maximum expansionary effect, as there would be a minimum drain of demand in the income circulation process on savings and imports, and a maximum encouragement of additional private spending. As a result, there may be a debt paradox in the sense that the income effects of stimulus measures would lead to full compensation, or even overcompensation, of the initial deficit through additional tax incomes. Moreover, to the extent that it accelerates GDP growth, the debt-to-GDP ratio may fall. In other words, as a result of multiplier and accelerator effects on income, which increase the tax revenue at constant tax rates, a deficit can finance, and, under favourable conditions, even overfinance its own debt service, so that an expansionary fiscal policy may be more likely to reduce the deficit and the debt ratio than a restrictive one.

D. Dealing with public debt crises

Public debt crises are not a recent phenomenon. Sovereign lending dates as far back as the fourteenth century, and recurrent defaults show that such lending has always been risky (Cipolla, 1982; Kindleberger, 1996). However what constitutes a sovereign debt crisis is not at all clear. Crises have been occurring as a result of a lack of fiscal resources, but more frequently owing to problems associated with a lack of foreign exchange. The 1997 Asian crisis, for example, was due to the inability of a number of countries to stop a rapid devaluation of their currencies and to pay their foreign obligations. It was by no means a public debt crisis. In that sense, the Asian crisis differs from the Latin American debt crisis of the 1980s. In the case of Africa, public debt overhang problems plagued the region prior to the Heavily Indebted Poor Countries (HIPC) Initiative.

For decades African countries suffered from economic stagnation, while experiencing only sporadic balance-of-payments crises.

Two important distinctions are relevant when dealing with debt crises. First, there is a difference between private and sovereign borrowers. The latter may borrow in their own currency, which is legal tender and over which they have a monopoly of issuance. Second, there is a difference between public debt denominated in domestic currency and that denominated in foreign currencies. In the first case, the government can always monetize public debt by directly selling government bonds to the central bank, or the central bank can buy public debt in the secondary markets, thereby facilitating the financing of the government. The consequences of this kind

of indebtedness differ from those resulting from foreign-currency-denominated debt, when the public sector is unable to service that debt. Thus, each of these debt situations requires different policies for preventing a crisis.

Additionally, there is the question of the law governing the issuance of debt and the ways in which it may be renegotiated. Debt issued under local legislation may be allowed flexibilities which differ from that issued under foreign legislation. And even in the latter case, rules will differ depending on the legislation which regulates the debt contract, such as the State of New York.

Finally, it should be emphasized that there are differing views about the causes of debt crises. While public debt crises can be caused by excessive fiscal spending for a given tax base, often the problem of financial crises lies with the system of international finance that provides liquidity to cash-starved agents in intermittent cycles, and with capital flows that vanish or even reverse exactly when they are needed the most. In fact, many crises are the consequence of an accumulation of private debt and mispricing in currency or other asset markets, encouraged by “push factors” (i.e. foreign entities seeking profitable investments). In other words, public debt crises may result from fiscal mismanagement and/or “financial fragility”, to borrow Minsky’s famous term. A better global monetary system (as discussed in chapter VI of this *Report*) that ensures more stable flows of capital and stricter regulation of its uses are the prescribed solutions, rather than fiscal adjustment.

1. Preventing debt crises

Although public debt crises often do not have a fiscal origin, some are indeed caused by unsustainable fiscal policies, while others are caused by irresponsible lending for purposes that do not increase the overall productivity but amount to zero sum games over the medium term (see chapter IV of this *Report*). However, even when a debt crisis has a fiscal origin,

it may well be necessary to undertake expansionary fiscal policies to promote growth, which may lead to increasing public debt in the short run in order to forestall even worse consequences later.

Private domestic agents may borrow in an unsustainable way because they believe in infinite booms and bubbles, and suffer from a misconception that they can always obtain credit at very low interest rates. For sovereign borrowers that take loans on international markets, the same problems arise, since creditors have incentives to continue lending, while the debtors believe that fresh inflows at low interest will still be available. It is worth emphasizing in this context that, despite the risk of default by sovereign borrowers in international markets, more often than not lenders and bondholders benefit from their activities, since they can often charge higher interest

Credit in foreign currencies and sudden changes in capital flows and real exchange rates are a frequent cause of financial crises which often lead to public debt crises.

to borrowing countries. This is why financial markets tend not to punish countries that cannot service their debts. For example, Lindert (1989) and Lindert and Morton (1989) show that investors in Latin American government bonds during the period 1850 to 1914 received an ex post annual premium that was 0.42 per cent over the interest

payments received by holders of British consols (i.e. bonds), in spite of defaults. In a more contemporary study of the profitability of investing in developing countries’ debt, it was calculated that, apart from the various crises, during the period 1970–2000 the average annual return on emerging markets’ debt was 9 per cent (Klingen, Zettelmeyer and Weder, 2004).

These periods of financial euphoria are usually followed by financial crashes and may lead to widespread banking crises (Kindleberger, 1978; Reinhart and Rogoff, 2009). Since banking crises are often followed by sudden increases in public debt, associated with policy decisions to rescue financial institutions in distress, policies aimed at reducing the risk of debt crises need to include measures to keep in check private sector debt, both domestic and external. There are a number of useful instruments for limiting excessive risk-taking by the private sector, such as: tighter financial regulation, including guarantees that borrowers have income streams compatible with the accumulated debt; restrictions on certain types of predatory lending which misinform borrowers about

payment conditions; caps on interest rates charged by certain types of credit lines; higher capital requirements for banks; and capital controls.

Debt denominated in foreign currencies which needs to be repaid with revenues earned in a national currency is another frequent cause of a financial crisis spilling over into a public debt crisis. Credit in foreign currencies has surged in increasingly deregulated international financial markets, such as in Hungary, Iceland and some other Eastern European countries. At the same time, these countries have been the targets of carry-trade speculation, leading to an appreciation of currencies in countries with high interest rates. This has contributed to long-lasting current-account deficits through currency appreciation, an import surge and increasing debt service. As a result, the countries concerned have become vulnerable to financial shocks in the global economy, such as sudden changes in capital flows or interest rate hikes in carry-trade funding countries such as Japan and Switzerland. After a reversal of capital inflows real depreciation is the only way to balance the external accounts in a debtor country (*TDR 2008*). However, when there is significant foreign-currency-denominated debt, a real depreciation will lead to a sudden jump in the debt-to-GDP ratio and in debt servicing payments in domestic currency. If, in the wake of a crisis, and under the influence of international lenders, the government tackles the external crisis with contractionary fiscal policies, seeking to restore the external balance by reducing domestic demand, it will make matters worse. In any case, debt sustainability is affected, possibly leading to a debt crisis and debt default. These are classical cases of a dual crisis: a balance-of-payments crisis, which leads to a fiscal crisis, either because the public sector has contracted a sizeable share of the foreign debt, or because it has assumed most of the burden of private debts.

The situation is even more complicated for countries that are members of a monetary union, have a currency board or are dollarized. In any of these cases, a real devaluation can only be achieved through wage cuts (sometimes referred to as internal devaluation). However, that may lead to deflation, which may have an even greater negative impact on debt sustainability because it would increase the real

value of all liabilities, not only those denominated in foreign currency (Eichengreen, 2010). This in turn could result in debt deflation or a balance-sheet crisis, as discussed earlier.

Efforts to solve this problem have to start at the global level (discussed in chapter VI). At the national level, it should be recognized that during periods of economic boom, countries and their lenders sow the seeds of future crises.¹⁰ During periods of global optimism, capital inflows flood developing countries, which are often unable to restrict the amounts, even if they can change the maturity profile of the inflows with capital controls. As mentioned before, this behaviour not only leads to a rapid accumulation of external debt, but often it also causes an appreciation of the real exchange rate and induces large external imbalances, which eventually provoke capital reversals, currency collapse, and, ultimately, a financial and real crisis.

Preventing a repetition of this familiar pattern requires a change of practices during good times, with less external debt, more reserves and a policy aimed at limiting currency appreciation. Development of domestic sources of finance and reducing foreign capital needs are therefore policies that should be encouraged during boom phases. These are precisely the policies which the largest emerging market economies have been pursuing since the late 1990s. As a change in the composition of public debt and a switch to domestic borrowing can reduce asymmetries and improve the trade-off discussed above, several developing countries are now retiring their external public debt and issuing domestic debt instead.

2. Responding to debt crises

Although debt crises do not always have a fiscal origin, the standard response to a sudden jump in public debt is often fiscal retrenchment. This appears to be a misguided policy, because the appropriate response should relate to the nature of the crisis. If a crisis originates from the bursting of an asset bubble, the response should be financial reform, and even quite the opposite of fiscal retrenchment, namely

The response to a crisis should depend on the nature of that crisis ...

countercyclical policies to absorb private sector deleveraging so as to reduce the macroeconomic slump created by asset deflation (*TDR 2009*). If the crisis originates from excessive foreign currency lending and excessive real appreciation, the appropriate response at the national level might be to improve the debt structure and introduce policies aimed at avoiding misalignments of the real exchange rate as well as introducing controls on capital inflows.

Fiscal retrenchment as a response to a crisis not caused by irresponsible fiscal policies is problematic for several reasons. Fiscal adjustments tend to affect the most vulnerable groups of society, often with serious social consequences. Moreover, they may even be ineffective in reducing the debt-to-GDP ratio because they may amplify the recession, thus causing a decrease in the denominator of that ratio. As a result, fiscal contractions may cause painful adjustments in the short run and create costs in the long run. There is evidence that after recessions output growth tends to return to its previous trend, but the output loss is never recovered (Cerra and Saxena, 2008). Recessions therefore lead to a permanent output loss, and since contractionary fiscal policies amplify both the length and the depth of a recession they also increase this loss and weaken a country's overall ability to sustain a given level of public debt.

There is another important channel through which fiscal retrenchment may have a negative effect on long-term growth and thus reduce debt sustainability. Since current expenditure can be difficult to adjust (because it is composed mainly of wages and entitlement programmes), fiscal retrenchment usually leads to large cuts in public investment (Martner and Tromben, 2004; Easterly, Irwin and Servén, 2008). This reduction in growth-promoting public expenditure may lead to a fall in the present value of future government revenues that is larger than the fiscal savings obtained by the fiscal retrenchment. The outcome could be an improvement in the immediate cash flow of the government, but with negative consequences for long-term fiscal and debt sustainability. Fiscal policy should therefore explicitly consider how the fiscal adjustment will affect output growth and capital accumulation. It should also recognize that a deficit incurred in financing an investment project,

and that some current spending, especially in areas such as health, education, nutrition, and sanitation, may result in an increase (and not a decrease) in the country's net wealth.

However, even sovereign borrowers that are targeting sound long-term fiscal indicators may lose access to credit in international markets and find themselves unable to finance their current cash deficits at a reasonable interest rate. This is where the international community should be able to step in and provide the needed financial support. It should be clear that provision of such support is not a bailout, but simply an intervention aimed at addressing a market failure. While Bagehot (1873) was right

in saying that during crises the domestic lender of last resort should stand ready to lend freely at a penalty rate to solvent but illiquid banks, there are problems in applying Bagehot's suggestion of a penalty rate to the behaviour of an international lender of last resort. Bagehot's idea of lending

at a penalty rate was aimed at avoiding moral hazard. However, it is doubtful that moral hazard is playing any significant role in international finance, and it is certainly not the main cause of sovereign debt crises.¹¹

Therefore lending at a penalty rate would not generate any *ex ante* gain in terms of disciplining borrowers. On the contrary, by increasing the interest bill, it would contribute to debt accumulation and therefore aggravate the problem that emergency lending is trying to solve. The same line of reasoning holds even more for countries that are on the edge of insolvency. For these countries, high interest rates which are supposed to protect the resources of the lender of last resort can actually backfire and cause losses, as a lender of last resort that lends at a penalty rate may contribute to pushing the country towards insolvency.

3. Debt restructuring

When sovereign debt is denominated in domestic currency, default is unlikely since that debt can be repaid by issuing more money. But when debts are denominated in foreign currency, debt default and restructuring are bound to occur, even with the

... If a crisis has not been caused by irresponsible fiscal policies, fiscal retrenchment is not an appropriate response.

best possible international and domestic policies. However, this does not hold for private debt, since private agents are often rescued by domestic authorities. But from a purely legal point of view, a sovereign State cannot be declared insolvent. Further, the value of a country's assets (its land, its natural resources and the wealth of its citizens) is usually very large, and in any case cannot always be measured in terms of current values. Therefore, it is unthinkable for a country to be faced with a situation where its liabilities are larger than its assets (which for a firm would be considered as insolvency). In addition, creditors cannot unilaterally (or with the help of a court) take over a country's management (i.e. replace the country's government). In fact, the principle of sovereign immunity limits a creditor's ability to sue a sovereign entity, and even when that entity agrees to waive its immunity, verdicts remain difficult to enforce because assets that are located within the borders of the defaulting country cannot be confiscated.

Although sovereign States cannot be forced to repay their debts, sovereign defaults, beyond the foreign currency problem, remain very rare events. In most cases, States make considerable efforts and endure economic pain in order to service their debts, since policymakers seem to think that repaying is cheaper than defaulting. While it is easy to determine the cost of repaying (which is the value of the loan), it is harder to identify the costs associated with a sovereign default. This is far from being a purely academic question, because a better understanding of the costs of default is a necessary condition for devising policies that could reduce those costs as well as the prevalence of such defaults. It is worth pointing out that sovereign defaults have rarely been complete defaults; they are usually partial in nature, involving some amount of reduction/restructuring of the debt.

The economic literature has focused on the reputational and trade costs of defaults. Models that focus on reputational costs assume that default episodes reduce a country's ability to access international financial markets (Eaton and Gersovitz, 1981). Models that emphasize trade costs suggest that defaulters can be punished with trade sanctions (Bulow and Rogoff, 1989). Apart from some theoretical problems with these models (for a review, see

Panizza, Sturzenegger and Zettelmeyer, 2009), the real issue is that their assumptions have no empirical basis. Reputational costs appear to be limited and short-lived (Borensztein and Panizza, 2010), and there is no evidence of trade sanctions (at least in recent times). A more recent class of theoretical models focuses attention on the domestic effects of a sovereign default (Cole and Kehoe, 1998). However, empirical evidence shows that the costs of a default seem to be limited, even in terms of its effects on GDP growth (Levy Yeyati and Panizza, 2011); and in any case, they have been smaller in countries that preemptively restructured their debts (De Paoli, Hoggarth and Saporta, 2006).

An outright debt default clearly undermines the general strategy of nurturing the confidence of financial markets as a key element for attracting foreign capital and spurring investment (referred to as the "confidence game"), and this may magnify the cost of a default by adding qualitative factors that are not visible in a quantitative, cost-advantage exercise. Thus a country's reputation would suffer less damage if a debt default appeared to be unavoidable (Grossman and Van Huyck, 1988). This may explain why some governments decide to assume a large cost in order to postpone a necessary default, thereby signalling to all interested parties that when the default eventually occurs, it is not a "strategic default" (Borensztein and Panizza, 2009; Levy Yeyati and Panizza, 2011).

When defaults do occur, debts need to be restructured, and the complexity of the restructuring process depends on the structure of the defaulted debt. Until the early 1990s most foreign debt of developing countries was either owed to official creditors (multilateral or bilateral) or to banks. When the Brady swaps of the 1990s transformed defaulted syndicated bank loans into tradable bonds, policymakers feared that the presence of a large number of dispersed and heterogeneous creditors could lead to long and costly debt renegotiations. There was also concern that vastly dispersed debt would provide strong incentives to individual creditors (possibly specialized vulture funds) to "hold out" from debt rescheduling and then litigate in the hope of collecting the full face value of their claims (Panizza, Sturzenegger and Zettelmeyer, 2009).

When defaults occur, debts
need to be restructured.

These preoccupations prompted several initiatives aimed at facilitating the debt restructuring process and, in the wake of the Argentinean crisis of 2001–2002, led to an IMF proposal for the creation of a sovereign debt restructuring mechanism (SDRM). This statutory approach to debt restructuring shared some of the features of an earlier UNCTAD proposal (*TDR 1981*), which in turn was based on Chapter 11 of the United States commercial code (i.e. the bankruptcy code for private agents). The SDRM was eventually rejected by the United States Treasury under pressure from financial groups involved in the emerging markets bond business. Instead it suggested that the hold-out problem could be solved using a contractual approach based on the introduction of collective action clauses (CAC) in debt contracts and the use of exit consent.¹² Countries that presented lower risks of requiring a future debt restructuring obtained more flexible terms than those that were more prone to debt problems. In some cases, however, creditors have prevented the use of “exit consents” in bond emissions, including CACs (Gelpern, 2003).

Furthermore, CACs do not solve other problems associated with the current non-system. As the current rules cannot enforce seniority (with the exception of the de facto seniority granted to multilateral organizations), it leads to too much lending in the run-up to a debt crisis (debt dilution) and too little lending during the restructuring process (lack of interim financing). Debt dilution occurs when new debt issuances can hurt existing creditors of a country that is approaching financial distress. It has been shown that debt dilution increases borrowing costs and may lead to risky levels of debt accumulation (Bolton and Olivier, 2007).¹³ During the restructuring period, the defaulting country may need access to external funds to either support trade or to finance a primary current-account deficit, and lack of access to these funds may amplify the crisis and further reduce ability to pay. As the provision of such interim financing would require some sort of seniority with respect to existing claims, the defaulting country will not be able to obtain any credit from the private sector during the restructuring period. The second problem has to do with the fact that, while standard models of sovereign debt assume that countries have an incentive to default by too much

or too early, there is now evidence that policymakers are reluctant to default and do all they can to avoid it (Rogoff and Zettelmeyer, 2002). Delayed default may destroy the value of outstanding debt because a prolonged pre-default crisis may reduce both ability and willingness to pay.

A prolonged pre-default crisis may reduce both the ability and willingness to repay debt.

It is for these reasons that, 10 years after the shelving of the original SDRM, there is still a debate on whether such a mechanism would be a valuable addition to the international financial architecture (Fernández-Arias, 2010). Those who oppose such a statutory approach argue that the current system is second best, because, in the case of non-enforceable contracts, willingness to pay is linked to the costs of default arising from an inefficient debt restructuring process (Dooley, 2000; Shleifer, 2003). Therefore, removing these inefficiencies would reduce the costs of default and increase borrowing costs. Those who support the statutory approach, argue that debt dilution, lack of interim financing and the presence of debt overhang lead to a loss of value for both debtors and creditors. The possibility that countries may delay necessary defaults in order to show that the eventual default was indeed unavoidable is an important consideration in the discussion on the desirability of international policies aimed at mitigating the costs of default. If a country’s attempt to defend its reputation by sub-optimally postponing a necessary default creates a deadweight loss, there are policies that can reduce the costs of default. In particular, the creation of an agency with the ability to certify necessary defaults, and thus protect the reputation of countries without forcing them to go through a painful and counterproductive postponing exercise, could reduce the costs of defaults while simultaneously increasing recovery values on defaulted debt. It would thereby facilitate access to credit and reduce the overall costs of borrowing. It is important to point out that postponement of a default is typically associated with contractionary measures that further reduce the ability to repay.

While it is impossible to directly test the hypothesis that the creation of a debt resolution mechanism would increase borrowing costs (because such a mechanism does not exist), it is possible to indirectly test this hypothesis by checking whether other mechanisms that facilitate sovereign debt

restructuring have an effect on borrowing costs. One candidate for such a test is CACs. When CACs were first introduced in New York bonds law, it was feared that by reducing the costs of default they would increase borrowing costs. However, there is now ample evidence that CACs have no impact whatsoever on borrowing costs. Proponents of the higher borrowing cost hypothesis often mention the possibility of some vaguely defined reputational cost. Again, these statements cannot be formally tested (and it is not clear why such a mechanism would affect reputation). However, reputational costs associated with sovereign defaults are either very small (Ozler, 1993; Benczur and Ilut, 2006) or short-lived (Borensztein and Panizza, 2009), or both small and short-lived (Flandreau and Zumer, 2004).

Summing up, debt restructuring may be part of a strategy to resolve a debt crisis, not just for the borrowing country but also for creditors, since the possibilities for renewed economic growth and the ability to repay increase. If debt renegotiation frees up resources for growth-enhancing activities it may allow a country to better finance its own reduced debt service. However, sovereign default or debt restructuring are no panacea, and their risks have to be weighed carefully against the risk of contagion, which is a major hazard in the European monetary union. There is also the possibility that domestic depositors will lose confidence in a government and flee the country – a risk that is particularly strong in a monetary union where people cannot be prevented from relocating their short-term deposits within the union.

E. Conclusions: growing out of debt

The above discussion suggests that the best strategy for reducing public debt is to promote growth-enhancing fiscal policies. Moreover, it would seem from the evidence that fiscal expansion tends to be more effective if spending takes precedence over tax cuts, if spending targets infrastructure and social transfers, and if tax cuts, in turn, target lower income groups, which generally have a higher propensity for spending. Fiscal expansion, by increasing the level of activity and income, as noted earlier, raises the revenue stream and reduces the debt-to-GDP ratio, in particular if interest rates are relatively low compared with GDP growth. In this sense, problems associated with the growth of public debt, particularly when that debt is not primarily related to fiscal problems, are best resolved by a strategy of fiscal expansion.

Further, if it is argued that, for economic and/or political reasons there is little space for fiscal expansion, there is always the possibility to redirect spending and taxes to support more expansionary measures. Again, this suggests that spending

should be given precedence over tax cuts, and that both measures should benefit low-income groups in particular. A more equitable distribution of income would make economic recovery more self-sustaining and improve the chances of achieving fiscal consolidation. In this sense, increasing real wages in line with productivity, and, especially in developing countries with large informal sectors, government transfers to the low-income segments of society, are important complements to fiscal expansion.

Beyond the notion that growth is the best solution to reduce public-debt-to-GDP ratios, it is important to emphasize that higher ratios of public debt per se, particularly in developed countries after the crisis, do not pose a threat to fiscal sustainability. The public debt today is much more sustainable than the private debt before the crisis. As long as interest rates are low and unused capacities exist, there is no crowding out of private investment, and the globally higher public debt ratios do not pose a problem for recovery. For the world as a whole, and for the big

economies, the only strategy warranted is one of consolidation through growth. Growth, combined with low interest rates, will bring an increase in revenues and a fall in debt ratios over time. This implies that monetary policy should continue to maintain low interest rates in order to keep the burden of interest payments for the public sector bearable.

The best strategy for reducing public debt is to promote growth-enhancing fiscal policies and low interest rates.

If inflation is perceived to be a serious threat to economic stability, and given that in most economies the pressures on prices have originated largely from the financialization of commodity markets, the

subsequent, second round effects (such as a price-wage spiral) need to be dealt with by an incomes policy rather than by adopting restrictive macroeconomic measures. There are instances when an external constraint (e.g. when lack of competitiveness brings about current-account deficits) prevents fiscal expansion because it would aggravate the external imbalance. In such

cases, priority should be given to resolving the balance-of-payments problem rather than introducing austerity measures. This is particularly important for countries that are members of a currency union. ■

Notes

- 1 For instance, when the IMF provided large assistance packages to Argentina, Brazil, Indonesia, Mexico, the Republic of Korea, Thailand and Turkey, it was criticized for wasting taxpayers' money. But all these countries paid back, and the Fund (and thus the international taxpayer) even made a small profit. In fact, the Fund suffered a budget crisis when countries were no longer hit by crisis (which is not surprising as the business of the Fund is crisis management). Interestingly, the case of Argentina shows that even a failed rescue attempt ended up being profitable for the Fund.
- 2 Preferences for spending cuts over tax increases are also supported on the grounds that the tax burden is already high in developed economies, so that "there may be limited scope to raise tax without adverse effects on economic efficiency" (IMF, 2010c: 10).
- 3 The IMF (2010b) does not provide any empirical evidence of this alleged "typical" behaviour of central banks, which is fundamental to its policy recommendation of using spending cuts rather than tax increases. Neither does it provide convincing conceptual proof. It states that tax increases would raise prices in a way that would prevent central banks from reducing interest rates. However, it is not evident that direct taxes (that are not mentioned as a possibility) have any upward impact on prices, or even that higher rates of indirect taxes have more than a one-off impact on prices, which would justify a restrictive monetary stance. And if tax hikes effectively cause inflation, then real interest rates will fall, generating the economic stimulus without requiring central banks to cut nominal interest rates. Furthermore, the idea that fiscal tightening will reduce real exchange rates contradicts the view – also supported by the IMF – that lower fiscal deficits will improve confidence in financial markets and eventually attract capital inflows, which would then lead to currency appreciation.
- 4 Here, there is an implicit assumption that fiscal adjustment will reduce not only the fiscal deficit, but also the public-debt-to-GDP ratio. This is not guaranteed: even if fiscal tightening manages to improve the fiscal balance, this improvement may be insufficient to lower that ratio. For a debt reduction in absolute terms, a fiscal surplus would be needed.
- 5 For example, in 2005–2008 the average share of oil revenue in total fiscal revenue was over 80 per cent

- in Angola, Bahrain, Brunei Darussalam, Congo, Equatorial Guinea, Libya, Nigeria, Oman, Saudi Arabia and Timor-Leste. Countries where this share was over 70 per cent include Algeria, Kuwait, United Arab Emirates and Yemen. A number of countries in the Commonwealth of Independent States (CIS), such as Azerbaijan, Kazakhstan and the Russian Federation, and Latin American countries such as the Bolivarian Republic of Venezuela, Bolivia and Ecuador, also exhibit a high degree of dependence on revenues from their hydrocarbons sector, although the share in total fiscal revenues is relatively lower than it is in the above-mentioned regions. The same applies to mineral-dependent countries such as Botswana, Chile, Guinea, Liberia, Mongolia, Namibia and Peru (Villafuerte, López-Murphy and Ossowski, 2010; IMF, 2011c).
- 6 For example, the Chilean Government increased the percentage of royalties to be paid by mining companies in order to help finance reconstruction following the 2010 earthquake. Similarly, the Government of Guinea is undertaking a review of its mining code in order to raise its stake in mining projects, and in South Africa a State mining company was recently launched and the Government is considering increasing royalties.
 - 7 In this respect, it seems that the recent call for monetary tightening by the Bank for International Settlements (BIS, 2011) stems from an overly pessimistic view of the risks of inflationary acceleration.
 - 8 Barro and Redlick (2011) argue that the evidence for the United States on the relative effects of government spending vis-à-vis tax cuts is unreliable. However, the evidence presented by Zandi (2008), suggests that government-spending programmes are more stimulating than tax cuts.
 - 9 This concern is related to the conventional view that fiscal expansion increases interest rates, leading to capital inflows, and ultimately creating pressure for appreciation. However, Ilzetzi et al. (2010) do not find evidence of higher rates of interest being associated with fiscal expansion. This suggests that inflows might simply be the result of a growing economy, and that monetary accommodation is the main mechanism enabling managed exchange rate regimes to have larger fiscal multipliers. Indeed, there is ample evidence that capital flows to developing countries tend to be procyclical.
 - 10 One way to deal with this problem and reduce the likelihood of debt crises would be to establish a set of principles on accountable sovereign lending and borrowing, which would include due diligence, fiduciary duty, proper approval, transparency and disclosure and consideration of the question of debt restructuring (UNCTAD, 2011b). These principles should apply to the private sector as well, since in several cases the public sector ends up paying for the excessive lending and borrowing of the private sector. Also, these principles in no way imply that borrowers should submit to the criteria selected by creditors on what constitutes appropriate rules of behaviour. Indeed, the legal effects of these principles would essentially depend on the State's views.
 - 11 If there was a significant degree of moral hazard involved in international finance, spreads on lending to emerging markets should shrink to zero, creditors being absolutely sure that the IMF or some other actor would ensure full recovery of their lending (Lane and Phillips, 2002). For a sceptical view of the existence of moral hazard in international finance, see Kamin, 2002; for a more balanced view of the issue, see Corsetti, Guimarães and Roubini, 2003.
 - 12 There are three main CACs: (i) majority action clauses, which allow a qualified majority of bondholders (usually bondholders representing 75 per cent of the principal of the outstanding bonds) to amend all the terms and conditions of the bonds, including the payment terms, and make those amendments binding on the remaining bondholders; (ii) representation clauses, allowing a single agent or group of agents to negotiate with debtors in the name of bondholders; and (iii) a distribution clause, under which any amounts received by any creditor would have to be distributed among all of them. Exit consent is a technique whereby a majority of bondholders can change the non-financial terms of a bond with the objective of reducing the secondary market value of the bond and thus increasing the incentive to accept an exchange offer.
 - 13 In the corporate world, debt dilution is not a problem because courts can enforce seniority rules. However, it is a problem for sovereign debt, because after a sovereign default, all creditors, old and new, tend to receive the same haircut.

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