THE IMPACT OF THE FINANCIAL AND ECONOMIC CRISIS ON DEBT SUSTAINABILITY IN DEVELOPING COUNTRIES

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I. INTRODUCTION

This paper is prepared in response to a request by the former President of the General Assembly H.E. Miguel d'Escoto dated 6 July 2009 for UNCTAD to prepare a paper on the impact of the crisis on debt sustainability. Furthermore, this paper is a contribution to the follow up of the United Nations Conference on the World Financial and Economic Crisis and its Impact on Development held in June 2009.

The paper is divided into three parts. The first part (Section 2) describes the impact of the crisis on developing countries. It shows that this crisis has demonstrated, once again, the vulnerability of developing countries to exogenous shocks and that the global downturn raises concerns with regard to the capacity of developing countries to weather the storm without laying the foundations for a debt crisis in the years to come. In this context, it is essential for policy makers to be aware of key determinants of debt sustainability and how they have evolved over the last two years. However, debt sustainability should not be viewed as simply the capacity to continue servicing debt obligations without taking into account the fact that higher debt serving costs necessarily mean fewer funds available for fighting poverty and meeting MDGs.

The second part of the paper (Sections 3) shows that developing countries suffer debt crises with debt levels which, for the standard of the advanced economies, are relatively low (a phenomenon often referred to as debt-intolerance). The paper rejects the conventional wisdom that this phenomenon is due to poor policies or institutions and argues that the key determinants of debt intolerance are the economic and debt structure of developing countries.

The third part of the paper (Section 4) discusses international and domestic long-term policies aimed at reducing the probability of debt crises. This section also points out that, even with better policies, debt crises and sovereign defaults are bound to happen and that the cost of such crises could be attenuated by putting in place an international debt resolution mechanism which would allow a speedy, equitable and transparent debt restructuring process.

II. RECENT TRENDS

The financial crisis ignited by increased defaults on subprime mortgages in the United States in 2007 has turned into the most severe global economic downturn in the last seventy years. The crisis has spread from the financial sector to the real economy during the course of 2008, and deepened substantially after the bankruptcy of Lehman Brothers in autumn of 2008. During 2008 the debate on the decoupling of developing countries from the evolving economic slump in the developed economies was still inconclusive, but by the end of 2008 the data was clearly signaling that developing countries will face a substantial deterioration in their growth prospects accompanied by the worsening of a number of key economic and social indicators.

Growth in HIPC countries is expected to average 2.7 percent in 2009 compared to 5.8 and 5.6 percent in 2007 and 2008 respectively. For non-HIPC developing countries, GDP growth is expected to slow to 0.7 percent in 2009 compared to 8.1 percent in

2007 and 5.7 percent in 2008. These numbers hide large cross-country differences in performance, as the non-HIPC developing countries excluding China are expected to record a decrease of 1.8 percent of their GDP in 2009 compared to 2008, and about 62 (out of a total of 166 countries for which data are available) developing countries are expected to record negative output growth in 2009, while an even larger number of countries are expected to record negative growth in per capita terms.

Developing countries as a group registered a current account surplus of 3.5 per cent of their GNI in 2007, but by 2008 the surplus dropped to 2.5 per cent of GNI and it is expected to shrink to 1.6 per cent in 2009. Few countries with large surpluses heavily influence the group average, and excluding China, the figures look even more worrying. Non-HIPC developing countries registered a current account surplus of only 0.8 percent of GNI in 2007, and already in 2008 moved to a deficit of 0.3 percent of GNI. Moreover, over half of the developing countries had current account deficits exceeding 6 percent of GNI in 2008, and HIPCs as a group recorded a current account deficit of 6.8 percent of their GNI in 2008.

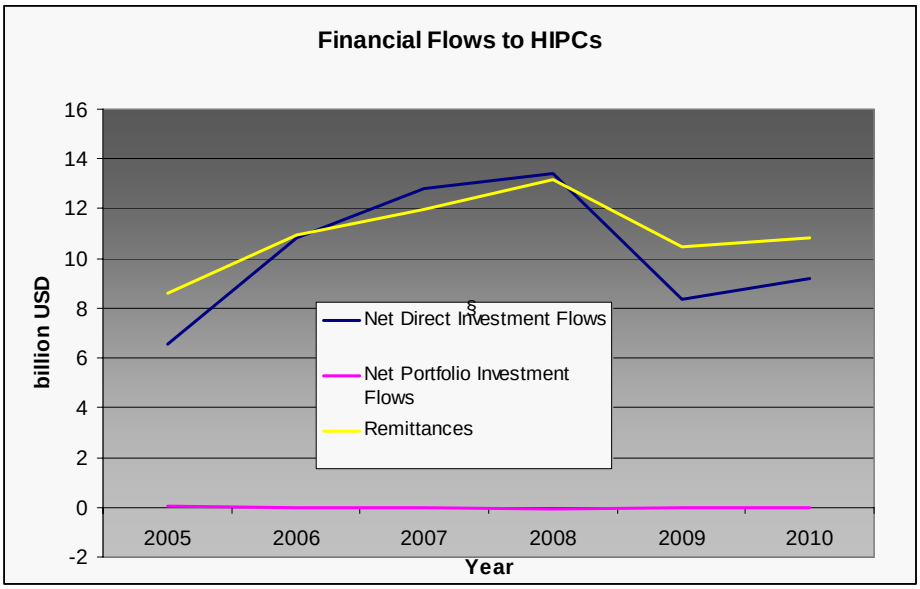
The deterioration in developing country current accounts was largely driven by the collapse in exports and to a lesser degree by a decrease in remittances. The drop in exports due to decreased global demand led to a decline of 30 per cent between September 2008 and March 2009 in the value of globally traded goods. This decrease is explained by a simultaneous slump in export volumes and in export prices, especially in the commodity sector. Although low-income countries dependent on single-commodity exports are likely to suffer most in the course of the crisis due to a sharp contraction in developed countries' industrial activity during late 2008 to mid 2009, middle-income developing countries have also recorded large decreases in exports, reflecting a sharp deterioration of trade in manufactured goods, resulting from a reduction in spending by consumers in the developed and developing countries.

As remittances account for a relatively small fraction of migrants' income, these flows tend to be fairly stable even during economic downturns. This explains why remittances have proven to be more resilient than other financial flows in the recent crisis, though some countries suffered sharp declines. After peaking at record 328 billion USD in 2008, remittances to developing countries are expected to decrease by 7.3 per cent in 2009, compared to a drop of over 50 percent in net private financial flows in the same period. The drop in remittances is directly linked to the recession in advanced market economies and the decrease in migrant workers' aggregate earnings who are often employed in the hardest hit sectors, such as construction and auto production. The most affected region by the decline in remittances will be Sub-Saharan Africa, registering an 8.3 per cent decrease followed by Latin America with a decline of 6.9 per cent. Workers' remittances are regarded as both an important stabilizing factor in current account dynamics for many developing countries and as a cushion against poverty for receiving households. It is this latter effect that has caused concerns for many developing countries as the weakness of the economy and decreasing government revenues are already jeopardizing a number of social programs.

Due to a general decrease in other financial flows, the relative importance of remittances has grown notably for smaller developing countries. In HIPCs,

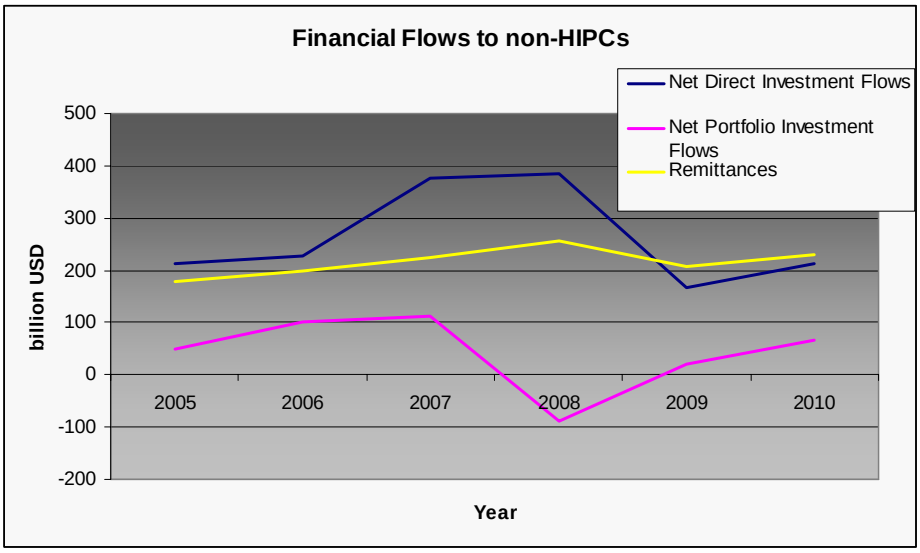
remittances will overtake net direct investment flows in 2009, the latter decreasing as a consequence of the financial crisis by more than 30 per cent in 2008/9 (see figures 1 and 2). It is expected that the most affected countries by the drop in remittances in 2008 and 2009 will be Guyana, Honduras, Haiti, Lesotho, the Republic of Moldova, and Tajikistan.

Figure 1: Financial Flows to HIPCs



Source: UNCTAD calculations based on IMF *International Financial Statistics*, UNCTAD *World Investment Report*, national sources, and EIU estimates.
Note: Based on data availability.

Figure 2: Financial Flows to non-HIPCs

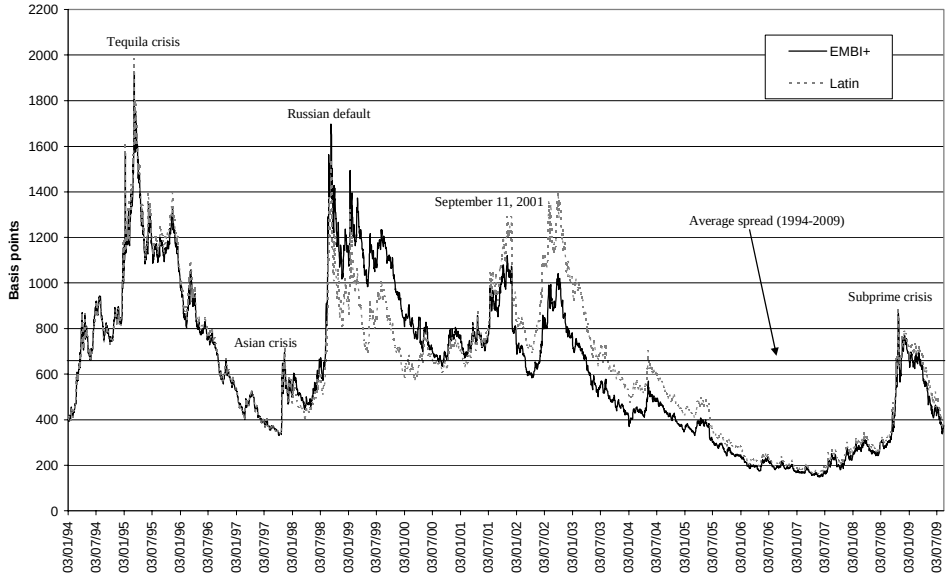


Source: UNCTAD calculations based on IMF *International Financial Statistics*, UNCTAD *World Investment Report*, national sources, and EIU estimates.
Note: Based on data availability.

While it is true that some developing countries may benefit from moving from a current account deficit to a current account surplus position and that developing countries with a current account surplus may receive limited or no benefits from financial globalization and the associated private capital inflows (TDR, 2008), it is also true that adjustments should be gradual. Therefore, a sudden stop of private capital flows may be a source of considerable pain, at least in the short run. Coping with such a reversal of private inflows is one of the main policy challenges for a number of developing countries in 2009. This is especially, but not uniquely, true for those countries that are running a current account deficit. Net private capital flows, which surpassed $900 billion at the peak of the previous cycle in 2007, dropped to $465 billion in 2008, and are expected to be below $200 billion in 2009.

Not only has the availability of external private finance decreased over the last two years, but the cost of accessing international capital has become higher to developing countries as the financial turmoil deepened. The global financial crisis and the accompanying rise in risk aversion, in particular after the collapse of Lehman Brothers in September 2008, led to a drastic increase in sovereign borrowing spreads for emerging markets as a group. The spread over comparable treasuries increased from around 200 basis points in mid 2007 to over 850 basis points at the height of the crisis in late 2008 and early 2009 (see figure 3). Following a series of interventions by monetary and fiscal authorities around the world, and the propagation of the view that the global financial system will not collapse, spreads started decreasing from late February 2009, and have now dropped to levels that prevailed prior to Lehman's bankruptcy. However, current spreads of 350 basis points still imply higher borrowing costs for emerging markets as a group compared to pre-crisis levels, and for countries that rolled over their debt during 2009 a heavier debt service burden on their economies in coming years.

Figure 3: EMBI Composite and Latin Spreads

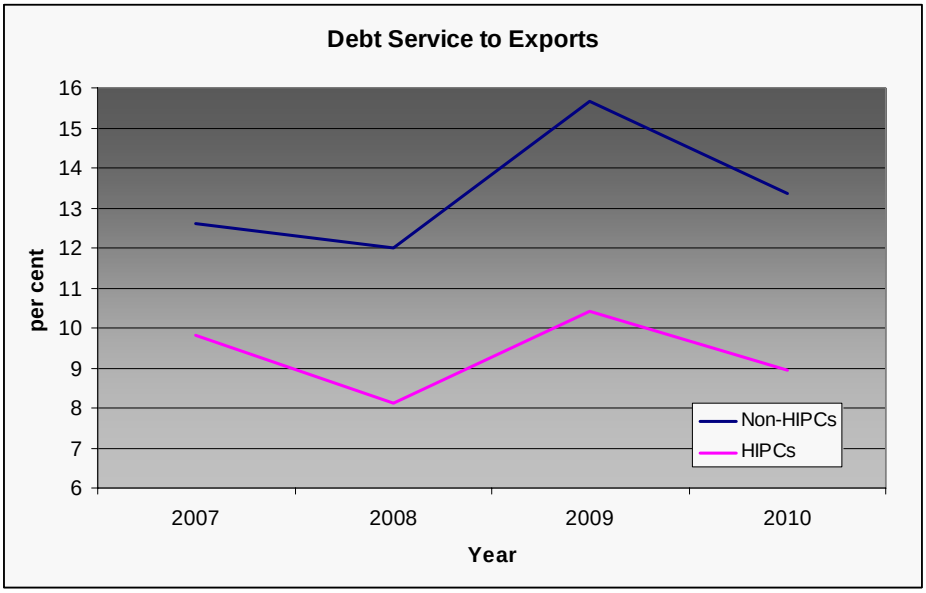


Source: Bloomberg

With a synchronized global financial crisis and the resultant sudden stop of credit provision, IMF has been functioning as the lender of last resort. Therefore, the severity of balance of payments difficulties encountered by developing countries is exemplified by the fact that the average number of countries seeking non-PRGF[1] IMF loans amounted to 6 per year prior to the crisis, whereas from October 2008 to August 2009 alone the number of countries accessing such facilities increased to 24. Furthermore, whereas the average amount of disbursed IMF funds for all non-PRGF programs averaged SDR 2 billion a year between 2003 and 2007, the support for the 24 countries from the end of last year amounted to over SDR 100 billion.

Debt stock reductions associated with the HIPC and MDRI initiatives coupled with robust international growth of the previous years led to an impressive improvement in debt indicators between 2003 and 2007. While total public debt held by developing countries increased by 176 billion USD during 2008, basic debt ratios still showed a moderate decline as the full impact of lower export and slower GNI growth did not yet filter through to developing countries. However, the decline in global demand and the resulting drop in developing countries growth and export performance will partially reverse the big gains made on the external debt front up until the end of 2008. For example, the debt service to exports ratios is expected to worsen for both HIPC and non-HIPCs during 2009 (see figure 4).

Figure 4: Debt Service to Exports Ratio



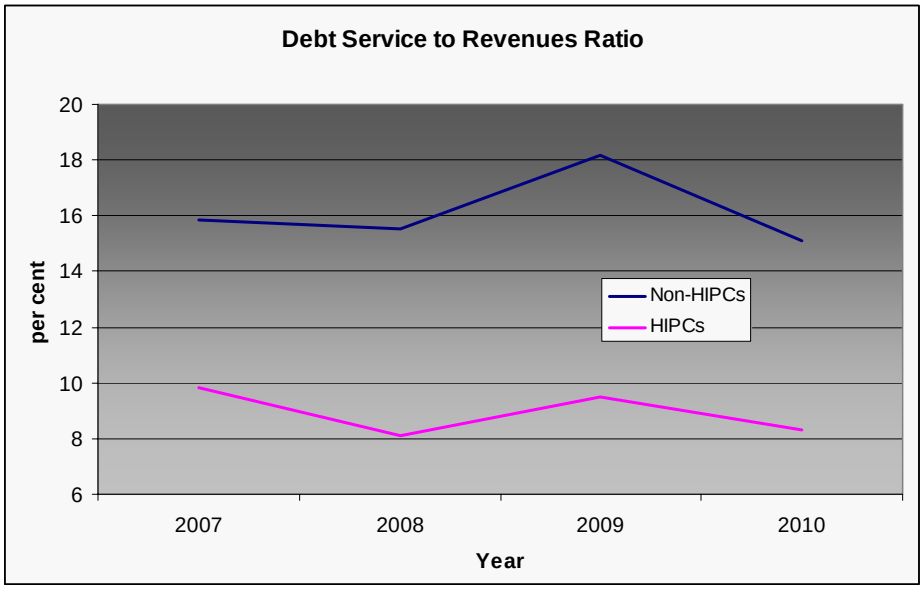
Source: UNCTAD calculations based on World Bank *Global Development Finance*, and EIU estimates.

It is likely that debt service burdens, both as a share of exports and as a percentage of government revenues will remain more elevated both during 2009 and well into 2010 than in the pre-crisis years. In 2009, debt service in relation to government revenue

[1] PRGF: IMF Poverty Reduction and Growth Facility. We look at non-PRGF programs as they reflect the changes in the economic landscape excluding the ongoing HIPC activities which follow a timetable of their own.

will increase by more than 17 per cent for both HIPCs and non-HIPCs (see figure 5). For HIPCs, this increase is due to both an increase in absolute debt service payments as well as a substantive decrease in government revenues. Even prior to the crisis, the capacity of many developing countries to meet MDGs was constrained by a lack of domestic resources, and the increased share of government revenues devoted to debt servicing is worrisome, as more countries are likely to fall behind on planned poverty reducing programs. The Millennium Development Goals Report expects that the number of people living in extreme poverty will be an estimated 55 to 90 million higher compared to the pre-crisis level.[2] In this context, the UNCTAD Secretariat has proposed a temporary debt moratorium on official debt for low-income countries which would amount to approximately $26 billion for 49 low-income countries for 2009 and 2010.

Figure 5: Debt Service to Revenues Ratio



Source: UNCTAD calculations based on IMF *Government Finance Statistics*, national sources, and EIU estimates.

A recent study commissioned by UNCTAD has found that the global financial crisis has substantially weakened the banking sector in a number of low-income developing countries.[3] Looking at financial leverage, measured as total liabilities divided by total equity from the bank balance sheet information, the study finds an increase in this indicator during the post crisis period. Furthermore, the total bank capital ratios of most countries have shown a decrease in the post-crisis period as compared to the pre-crisis period. Interestingly, the ratios tend to be worse for domestic banks owned by foreign banks, reinforcing the increasingly held view that developing counties have suffered disproportionately for the excesses generated by international centers of private finance. If the global crisis extended beyond 2010, the risk of bank failures

[2] United Nations (2009). "The Millennium Development Goals Report 2009", New York, 2009.
[3] Amar Gande and Lemma W. Senbet (2009): "The Impact of Global Economic Crisis on Debt Sustainability of Low-Income Countries" (mimeo, UNCTAD).

would increase in some developing countries adding further pressure on their already strained budgetary positions, as governments would be obliged to rescue some of the big banks whose failure would pose a systemic risk to the economy. Even in the more optimistic scenario under which global growth resumes in early 2010, a weakened domestic banking sector could hamper a rapid resumption of economic activity in developing countries and thus further delay the achievement of MDGs. The weakening of the banking sector in developing countries caused by the financial crisis shows once again how developing countries as innocent bystanders of the crisis, nevertheless, have to cope with the repercussions of crisis which has derailed or slowed down their economic growth. It also demonstrates the different trajectories of the financial crisis across countries. In the developed world, the economic crisis was triggered by the financial sector. While in many developing countries, it was the global economic crisis which brought problems to their financial sector. Though there was a time lag, the negative impact on growth, poverty reduction and debt servicing capacities could nevertheless be significant.

III. DEBT SUSTAINABILITY IN DEVELOPING AND ADVANCED ECONOMIES

Developing countries and transition economies are subject to frequent debt crises which are characterized by low credit ratings and high sovereign spreads.

Of course different developing countries face different types of problems. Low-income countries are indeed unable to sustain high levels of debt. This is unlikely to be due to poor institutions and policies, as it is often claimed. Low tolerance to debt is driven by the fact these countries have poorly diversified economies and are excessively reliant on the exports of few commodities. This leads to a vicious circle. Low-income countries need credit to develop their productive sector and diversify their economies, but if they borrow they end up suffering the devastating and destabilizing consequences of debt crises. The answer to this dilemma is more concessional finance.

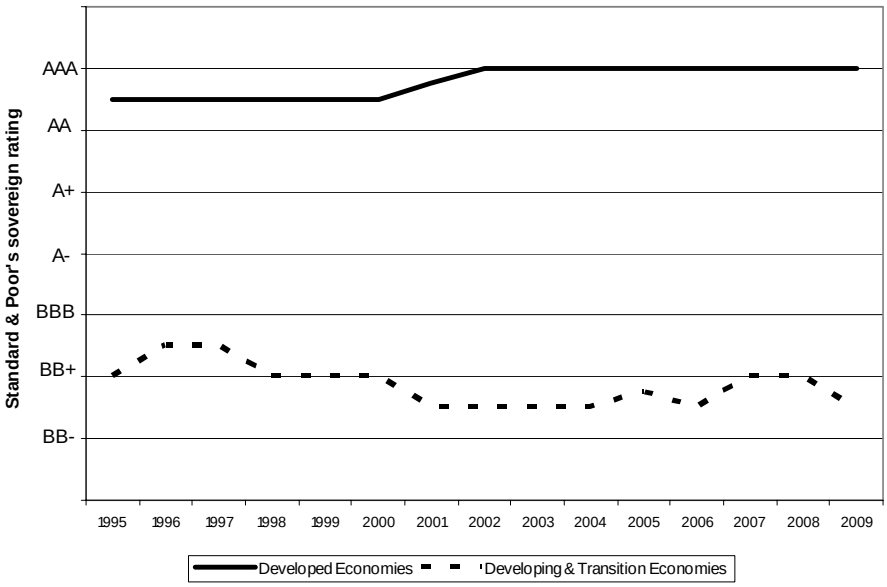
Middle-income countries that can access the international capital market face different types of problems. On average, it is not true that these countries go into crisis because they borrow "too much" (even though this is the case for some of them). Frequent crises are instead driven by a suboptimal debt structure which is partly the consequence of a poorly designed international financial architecture.

This latter point can be illustrated by looking at credit rating, sovereign spreads, and debt levels.[4] Over the period 1995-2009, the median sovereign credit rating of a large sample of developing countries oscillated between BB- and BBB while the median credit rating of the advanced economies remained above AA+ (Figure 6). Low credit ratings lead to high and volatile borrowing costs. During 1994-2009, spreads on dollar denominated sovereign debt averaged 640 basis points and went as high as 1920 basis

[4] Sovereign spreads measure the difference between the borrowing cost of the US government and that of dollar-denominated debt issued by emerging countries. The difference in borrowing costs derives from the pricing of perceived risks of default and expected losses.

points (Figure 3). This begs the question: what are the roots of this situation? Why do developing countries have low ratings and high and volatile spreads?

Figure 6: Median S&P Credit Rating in Developed and Developing Economies



Source: UNCTAD calculations based on Bloomberg data

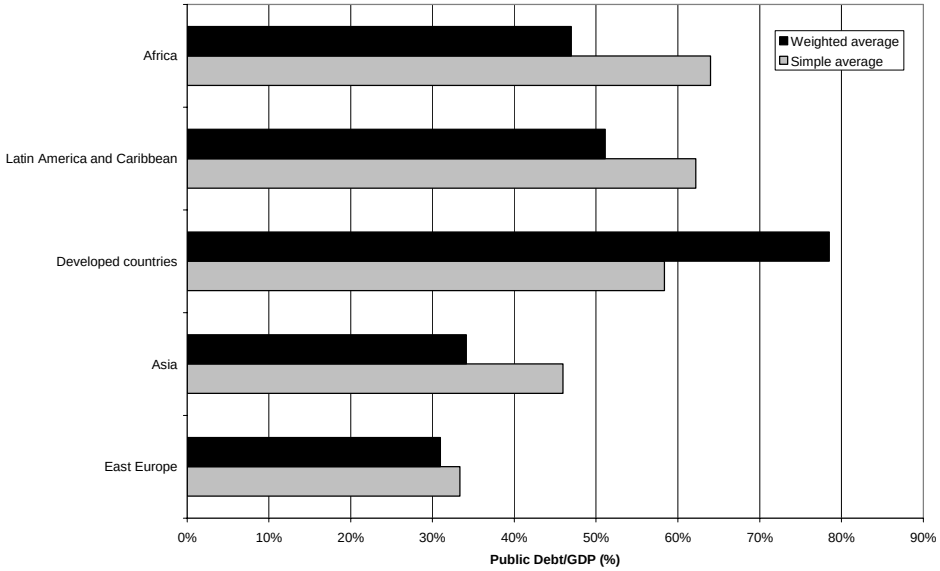
An economist's natural answer to the above question is: "bad fundamentals." However, the excessive volatility of emerging market spreads casts doubt on any explanation that is purely based on "fundamentals." Volatility would be justified if it were caused by the choice of domestic policies, with low spreads rewarding good policies and high spreads punishing bad policies. However, there is overwhelming evidence that volatility is often driven by external factors.[5] It is hard to identify changes in fundamentals that would justify the abrupt swings in spreads documented in Figure 3.

The same argument can be made by looking at the level of public debt over GNI, which is one of the most commonly used indicators of a country's ability to face its obligations. Figure 7 shows that, on average, developing countries do not have levels of public debt that are substantially higher than those of the advanced economies. When examining simple averages, only Africa and Latin America have debt levels which are higher than the developed counties, but the difference is fairly small (6 percentage points in the case of Africa and 4 percentage points in the case of Latin

[5] For instance, sovereign spreads in Latin America reached a high of 1700 basis points after the Russian crisis in 1998, and yet Latin America had no economic connections with Russia. This was a case of "financial contagion" driven by the fact that the same Wall Street investors who held Russian bonds also held Latin American bonds. When Russia defaulted in 1998, these investors indiscriminately sold the whole asset class. Even starker examples of the exogenous nature of volatility are the sudden increase in spreads in the aftermath of September 11, 2001 attacks and the current financial crisis. Both of these events concerned the center of the world financial system but had large negative effect on the borrowing costs of emerging market countries.

America). In contrast, Asia and East Europe have average debt levels which are substantially lower than the average of the developed economies.[6]

Figure 7: Public debt as a percentage of GDP (2004-2008)



Source: "Public Debt around the World: A New Dataset of Central Government Debt," Ugo Panizza and D. Jaimovich, Applied Economics Letters (March 2008)

These relatively low levels of debt do not mean that debt is not a problem for developing countries. On the contrary, they mean that debt is a much bigger problem for developing countries than for the developed countries. Japan has a public debt ratio to GDP that is well above 150 per cent and yet there is little concern about the solvency of Japan. At the same time, developing countries often face debt crises with debt levels which are as low as 30 per cent of GDP. There is something that makes debt riskier in developing countries. What is it? Why is debt a big problem for developing countries and a much smaller problem for the developed countries?

The standard explanation

According to the conventional wisdom this situation is due to the presence of poor polices and institutions. With respect to policy prescriptions, this view maintains that

[6] In fact, weighted averages —placing greater weight on larger economies— show that developed countries have the highest debt levels. It may be argued that the above discussion, which focuses on total public debt, is misleading because developed countries have much lower levels of external debt with respect to developing countries. There are two possible answers to this criticism. The first is that debt sustainability exercises that only focus on external debt are flawed. There is ample evidence that domestic public debt is a considerable source of vulnerability and that many debt crises originate in the domestic debt market (Reinhart and Rogoff (2008) "The Forgotten History of Domestic Debt" NBER Working Paper 13946). Moreover, in a world in which several emerging market countries have open capital accounts and borrow by issuing bonds, the distinction between external and domestic debt becomes somewhat artificial. Second, a comparison of the external debt situation of the developing world with that of the United States shows that there is no evidence than the United States has lower external debt than the average developing country. While there is some worry about a possible depreciation of the US dollar, there is little concern about a default by the US government, yet US Treasury bonds continue to carry a AAA credit rating and pay very low interest rates.

the only way in which developing countries will be able to sustain higher levels of debt is by improving their institutional set up. However, the argument goes, improving institutions will require time and effort, in the meantime developing countries should maintain low levels of debt. This is the approach at the basis of the IMF/World Bank Debt Sustainability Framework (DSF) for low-income countries which relates the level of sustainable debt to the score of the World Bank's Country Policies Institutional Assessment (CPIA) index.

This view, which may be labeled as "institutional fundamentalism," appears to be too strong in its conclusions and is not consistent with the high levels of volatility documented above. Such volatility in borrowing costs is often driven by the fact that foreign investors can change their mind very rapidly. The same policies and institutions that in one moment are deemed to be prudent and are "rewarded" with massive capital inflows and low spreads can suddenly become, in the view of investors, irresponsible and are "punished" with large capital outflows and high spreads (TDR, 2009).

The role of debt structure

An alternative and more promising class of explanations focuses on debt structure. It argues that what matters are the characteristics of the debt contract. For instance, the literature on "original sin" (Eichengreen and Hausmann, 1999; Eichengreen, Hausmann, and Panizza, 2005)[7] has focused on the currency composition of external debt and argued that the presence of foreign currency debt plays a key role in reducing debt sustainability.[8] Debt maturity is also important because short term-debt leads to rollover risk and thus increases vulnerability vis-à-vis long-term debt. The Mexican crisis of 1994/95 and the Russian crisis of 1998 are a clear demonstration of vulnerabilities linked to maturity mismatches (see Appendix).

Focusing on currency composition helps to explain why developing countries face frequent debt crises and a country like the United States faces no problems sustaining its debt. The difference is not due to where they borrow as they both borrow abroad and, on average, developing countries borrow abroad less than the United States. They even borrow abroad in the same currency as the United States (mostly US dollar); the difference being that the United States can print the dollar, whereas developing countries cannot.

[7] (Eichengreen and Hausmann (1999) "Exchange Rates and Financial Fragility" NBER Working Paper 7418. Eichengreen, Hausmann, and Panizza (2005) "The Pain of Original Sin", in: Eichengreen and Hausmann (eds.) "Other People's Money", University of Chicago Press.

[8] Consider the case of two countries with similar debt levels but with different debt composition: Country D has all of its debt denominated in domestic currency and country F has all of its debt denominated in foreign currency. Further assume that the two countries enter a recession and decide to adopt expansionary macroeconomic policies, which lead to a depreciation of the exchange rate. In country D, the expansionary policies are likely to stimulate the economy and improve both external and debt sustainability. In country F, the currency depreciation will increase the domestic currency value of the debt (this is often referred to as a negative balance-sheet effect) and may lead to a higher debt ratio and possibly to a debt crisis. As a consequence, countries with a large amount of foreign currency debt may face serious constraints in conducting countercyclical macroeconomic policies.

IV. HOW TO MAKE DEBT SAFER

There is a heated debate on why countries have different debt structures and whether it is possible to introduce new instruments that can improve debt sustainability.

In one camp there are those who, while not denying the role of good institutions and policies, argue that the set of debt instruments currently available to developing countries is mainly due to a combination of historical accidents and inertia. As a consequence, it is possible, although not easy, to introduce new and better debt instruments that can improve debt sustainability. In the opposite camp, there are those who argue that the available set of instruments is just a reflection of institutional failures which lead to poor contract enforcement and lack of policy credibility. According to this view, there is no shortcut and nothing can be done without addressing institutional failures.

The latter view appears to be too extreme. While it is unlikely that new financial instruments will, by themselves, allow developing countries to sustain the same debt levels that can be sustained by many developed countries, marginal improvement in debt structure is likely to reduce the probability of a debt crisis, at any given level of debt.[9] Moreover, most developing countries have investment opportunities with a potential return that is higher than the cost of funds. Hence, in theory, borrowing to finance these projects can improve a country's welfare. In some cases, developing countries may be able to finance these investment projects by mobilizing domestic resources. In other cases, external debt is the only alternative.

Avoiding over-borrowing

Innovative debt instruments can limit the risk of a debt crisis at any level of debt. However, for any set of debt instruments, the risk of a debt crisis can be reduced by borrowing less. This suggests that the first step towards achieving debt sustainability is to borrow for the right reason and not borrow too much during "good times." This does not mean that countries should not borrow, but rather that they should not over-borrow. Borrowing for the right reason means that debt should only be used to finance projects that generate returns which are higher than the interest rate charged on the loan. Moreover, foreign currency borrowing should be limited to projects that can either directly or indirectly generate the foreign currency necessary to service the debt (TDR, 2008).[10]

A way to maintain prudent debt levels is to complement macro-level debt sustainability analysis with a careful evaluation of the sustainability of each project. Before borrowing abroad, a country should evaluate a project by asking the following three questions: (i) Will the project have a social return which is higher than the cost

[9] A standard answer to this claim is that if such new instruments were viable there would be no need for policy interventions because the market would provide them. This line of reasoning does not recognize that the creation of innovative instruments would lead to positive externalities and therefore limit market incentives for the supply of such instruments (Borensztein, Levy Yeyati, and Panizza (2006) "Living with Debt", Harvard University Press and Inter-American Development Bank).

[10] Since money is fungible, the latter statement does not need to be applied literally. However, whenever a country borrows abroad it needs to make sure that the economy can generate the external resources necessary to service the debt.

of funds? (ii) Will the project generate the amount of foreign currency necessary to service the debt? (iii) Will the resource flows match the payment schedule of the debt contract? Only projects with positive answers to the above three questions should be financed with standard external debt contracts. It is likely that in low-income countries there are several high social return projects that do not satisfy the second and third requirements, in which case such projects should be financed with grants and concessional loans.

Excessive borrowing by the public sector is often driven by political or electoral considerations and by the fact that politicians may decide to maximize their own welfare rather than that of their constituencies. There is, by now, ample empirical evidence that public sector overborrowing can be limited by increasing the transparency of the budgetary process and the reliability of fiscal and debt statistics (see below) and by having a well working system of automatic fiscal stabilizers. Of course, discretionary fiscal policy remains important, especially at times of crisis, but it should be accompanied by rules that reduce their potential to generate a deficit bias (TDR, 2008, ch. 7 provides a detailed discussion of these issues).[11]

This highlights the important role of responsible borrowing and lending. Although there is no agreed set of definitions or principles, shared responsibility by both borrowers and lenders is crucial to avoiding the unsustainable (and sometimes fraudulent) accumulation of debt. UNCTAD has launched a project aiming to address some of these issues, which includes the development of guidelines and criteria for assessing legitimacy of sovereign debt.

Excessive borrowing, especially external borrowing, is also an issue for the private sector.[12] In fact, in many cases it is impossible to separate public from private liabilities. This is especially the case for bank-debt. The presence of implicit or explicit deposit insurance implies that, in the case of a banking crisis, bank liabilities are absorbed by the public sector. Thus, the external debt of private banks is a contingent external liability of the public sector.

Moreover, there are conditions under which private external debt may lead to over-borrowing and end up generating more vulnerabilities than public sector external debt. For instance, in most developing countries, the cost of borrowing is linked to total (public and private) foreign debt and thus external borrowing generates a negative externality, because each borrower increases the cost of funds for all other borrowers. If the government is the only borrower, it will make its borrowing decision by taking into account the effect of this upward sloping supply of funds. However, private agents do not internalize the fact that their borrowing decisions have a negative effect on other agents' borrowing costs and will thus borrow more than what is socially optimal.

[11] The need to increase spending and cut taxes during bad times is often not matched by the desire or ability to cut spending or increase taxes in good times.

[12] According to the Lawson-Robichek doctrine any payment problem linked to private external debt would only affect the parties directly involved in the debt contract and will not have the macroeconomic effects which are typically associated with sovereign debt crises. This view was discredited by the debt crisis of 1982 and the Asian crisis of 1997/98 which hit several countries with large current account deficits but high private investment rates and balanced fiscal accounts.

Another source of vulnerability is linked to the presence of moral hazard. Private borrowers may decide to minimize borrowing costs and accumulate currency and maturity mismatches if they think that they will be bailed out in the event of a currency or liquidity crisis. In particular, currency mismatches linked to the presence of liabilities in foreign currency and assets in domestic currency have been at the root of many debt crises, including the Asian Crisis of 1997/98 and the current problems facing several countries in Eastern Europe and Central Asia. This problem cannot be solved by simply requiring banks to match their foreign currency liabilities with foreign currency assets. Even if a bank perfectly matches its assets and liabilities, a currency devaluation can hurt the bank's balance sheet if the bank's clients have a currency mismatch (this is the case when firms that produce non-tradable goods borrow in foreign currency or when households hold foreign currency denominated mortgages). In fact, some private agents amplify potential mismatches linked to their normal borrowing needs by engaging in carry trade and speculating with derivative products. These activities may end up causing them enormous losses and the unwinding of these speculative positions contributed to destabilizing several foreign exchange markets.[13]

Prudential regulation should be aimed at avoiding such mismatches, but the implementation of such prudential regulation is made difficult by the fact that external private borrowing is more opaque than external public sector debt and total external exposure by the private sector is more difficult to measure and quantify than the external exposure of the public sector. This opaqueness is complicated by the fact that private sector entities often take currency risk by using sophisticated derivative instruments. Given these problems, there are instances in which controls on capital inflows can play a useful role in limiting over-borrowing and losses in external competitiveness.

Improving debt management

The current crisis has once again highlighted the importance of effective debt management for debt sustainability in developing countries. As with previous crises, effective management of a country's public debt has proved to be a valuable asset in mitigating the effects of external shocks. Effective debt management contributes to the attainment and maintenance of sustainable debt levels through three key dimensions: providing input to the decision-making process, implementing policies, and ensuring adequate coverage of the country's debt.

Debt management's input to the government's decision-making process consists of the provision of debt data and strategy proposals. The availability of reliable and timely debt data is essential for prudent risk analysis and the elaboration of government strategies aimed at ensuring sustainable debt levels. Key factors are the allocation of an adequate number of trained staff, efficient information flows and the implementation of effective management information systems. Additionally, the government must be prepared to make use of the information and recommendations that the debt management function can provide. In countries where these conditions

[13] For a discussion of carry trade, see UNCTAD (2007) Trade and Development Report, Chapter I. For a discussion of derivative-related exposures in the corporate sector, see Alejandro Jara, Ramon Moreno, and Camilo Tovar (2009) "The Global Crisis and Latin America: Financial Impact and Policy Responses" BIS Quarterly Review, June 2009.

are met, debt sustainability analysis can rely on accurate data and the resulting policies are strengthened; where this is not the case, the analysis and resulting decision-making suffer.

For the implementation of policies, appropriate regulatory frameworks, organizational structures and operational procedures are essential. When the appropriate legal and institutional frameworks are in place, and the organizational structure defines clear responsibilities, the consequential improvements in accountability and transparency levels promote the effective implementation of government policies for achieving debt sustainability. On a macroeconomic level, debt management must be treated as an integral part of the government's overall macroeconomic framework, strengthening the decision-making process and ensuring consistency with other macroeconomic objectives and policies. At the micro-administrative level, debt management functions must be integrated with the broader processes of public finance management and administration, including the integrated financial management systems. Countries that satisfy these conditions have been able to use debt management to mitigate the effects of financial crises. However, where these frameworks, structures and resources are lacking or are weak, there is insufficient capacity to effectively implement government policies related to debt sustainability, resulting in inconsistency between government objectives and the actual results.

Another prerequisite for debt management to support debt sustainability is full coverage of a country's public and publicly guaranteed debt obligations, as well as the monitoring of private non-guaranteed and short term debt. The Asian Crisis underlined the need for governments to maintain comprehensive coverage of such liabilities. However, many countries still have limited coverage of their debt, maintaining debt records for only some categories of central government debt. The consequence of this incomplete information is weaker ability to undertake comprehensive risk and debt sustainability analysis.

Developing new debt instruments

Developing countries can reduce the risks of a debt crisis by consistently running fiscal and current account surpluses. However, even if a country decided to do so (and there are several reasons why this may not be optimal or feasible), it would still be left with an existing stock of debt. As financial crises are often driven by liquidity problems and not by solvency problems (and even solvency problems are sometimes the outcome of a liquidity crisis), having a debt structure that limits the risks of such a crisis is key for guaranteeing sustainability.

Section 3 above highlighted the risks of foreign currency borrowing. Several developing and emerging market countries have been successful in reducing these risks by switching from the international to the domestic debt market. However, this option is not available to all countries and several developing countries still need to rely on the international capital market, where issuing in domestic currency is extremely difficult. The international financial institutions can help broaden the investor base for long-dated local currency instruments by issuing their own bonds in the currencies of their borrowing countries. In the past, multilateral development banks issued bonds denominated in the currencies of emerging economies with the objective to minimize their own borrowing costs. Recently, they accelerated this

process because they recognized that by borrowing in local currencies they could provide support for the creation of markets for such instruments and thus contribute to development using both the asset (their loans) and the liability (their funding) sides of their balance sheets.[14] Of course, these policies would become easier if the international financial architecture would move towards a less dollar centric system (see TDR 2009 for proposals in this direction).

Debt sustainability could also be improved by issuing contingent debt instruments. For example, GDP indexed bonds are of particular interest because they provide for lower payments when capacity to pay is low.[15] However, creating a market for such securities poses a number of challenges especially because someone needs to pay the fixed cost linked to the design and issuance of the new instrument. Also in this case, the international community could play an important role by providing technical assistance and strengthening the quality and reliability of the statistics necessary for pricing the new instruments. In the extreme, international financial institutions could be the first to issue innovative and contingent debt instruments.

The creation of new instruments may require the intervention at the international level because of the required market size, externalities, and the need for homogenous standards. But the international community could also help address a more fundamental problem. Issuing local currency or contingent debt is analogous to paying an insurance premium. In order to accept debt instruments with a more variable return, international investors are likely to ask for some form of compensation. Paying such a premium might be politically costly and policymakers may object to an insurance policy that may benefit future governments.[16] If the international financial institutions were to create a critical mass of these instruments and demonstrate their benefits, it would be harder for self-interested politicians to reject the use of such instruments.

V. CONCLUSIONS

The financial and economic crisis of the last two years has highlighted the need for further policy actions both at the domestic and international levels in order to generate economic growth rates in developing countries capable of preserving debt

[14] Eichengreen and Hausmann (2005) "Original Sin: The Road to Redemption" (in: Eichengreen and Hausmann (eds.) "Other People's Money", University of Chicago Press) proposed that the multilateral development banks should issue bonds denominated in an index that pools currency risk from a diversified group of emerging economies.

[15] For discussions of GDP-Indexed Bonds see Borensztein and Mauro (2004) " The Case for GDP-Indexed Bonds", Economic Policy, Vol. 19, No. 38, pp. 165-216, April 2004, and Griffith-Jones and Sharma (2006) "GDP-Indexed Bonds: Making It Happen" UN DESA Working Paper No.21, ST/ESA/2006/DWP/21.

[16] Recently, the Minister of Finance of Mexico received high praises for having adopted a prudent policy aimed at hedging the volatility of oil prices. This hedging policy was prudent and wise, and it would have been prudent and wise even if the prices of oil had increased instead of decreased (like buying insurance is prudent even if one does not have accidents). However, one could imagine the type of criticism the Mexican government would have been subject to if the price of oil had increased instead of decreased. This type of political risk is one of the main reasons why policymakers have limited incentives to enter into such insurance contracts. In fact, even articles that praised the Mexican Minister Agustin Carstens labeled this policy as a "gamble" rather than as a prudent insurance policy (Javier Blas "Mexico's big gamble on oil pays off," Financial Times, September 8, 2009).

sustainability as well as meeting the MDGs. In this regard, it is important to distinguish between short term actions aimed at minimizing the impact of the current crisis, and longer term policies that would need to be implemented to increase the robustness of the global economy and reduce global imbalances.

In times of crisis low-income countries have smaller margins to maneuver when it comes to weathering external shocks. Accordingly, an immediate short term measure to be adopted when a crisis erupts is for lenders to provide low-income countries with greater flexibility to respond to external shocks. Within the context of the current economic crisis, in April 2009, UNCTAD called for a debt moratorium on the sovereign debt of low-income countries to provide them with the breathing space they need to mitigate the negative impact of the global crisis. Encouragingly, in July 2009, the IMF announced the provision of interest payments relief to low-income countries in the form of zero payments for concessional lending facilities until the end of 2011.

At the G8 summit in Gleneagles and at the UN Millennium summit, countries decided to increase ODA flows to $ 130 billion by 2010. Although there are encouraging signs that a number of countries are on track to meet their national targets, some countries have cut aid budgets at a time when ODA is more important than ever in mitigating the negative impact of the global economic and financial crisis. It is important that all donor countries fulfill the existing pledges, and go beyond them in light of the difficult situation faced by developing countries. Additional aid would be essential for meeting the MDGs as the current targets were agreed before the financial crisis slashed economic growth and government revenues in developing countries, and created a situation where a number of countries have to curtail their social spending to maintain macro-economic stability and ensure debt sustainability.

Some HIPC countries are moving again towards an unsustainable debt position. The number of high-risk post-completion point countries increased from four to five over the last twelve months[17]. This increase is particularly worrisome as there is no scope for further debt relief for this country group. Continued and increased access to highly concessional finance is therefore needed to maintain debt sustainability beyond the completion point.

In terms of longer term actions, policies aimed at improving debt sustainability in low-income countries should start by recognizing that such countries have enormous needs in terms of investment in social and physical infrastructure but a limited ability to sustain the external debt necessary to finance these investments. Therefore, such countries face a dilemma. Either maintain sustainability and forego investment opportunities with high social returns, or try to borrow and invest as much as they can but then face recurrent debt crises. Both options will lead to low growth; the first — which is implicit in the World Bank/IMF debt sustainability framework— because of low investment and the second because of high volatility and stop and go cycles. A way out of this Hobson's choice would be full debt cancellation and a large step up in aid. Such a Big Push would produce a virtuous circle that may put today's low-income country on a path of stable growth and sustainable debt. Even though developed countries made several pledges to scale up aid to low-income countries (especially

[17] "Heavily Indebted Poor Countries Initiative and Multilateral Debt Relief initiative - Status of Implementation", IDA and IMF, September 2009.

Africa) there is no evidence of a major rethinking of international policy towards the debt problems of low-income countries.

Several middle-income countries entered the crisis with relatively strong fundamentals (as measured by current account surpluses and large international reserves). This position of relative strength, contributed to averting a more profound economic downturn than the one that some of these counties are going through. As opposed to previous global shocks, several emerging market economies managed to avoid a collapse of their domestic currencies and their banking sectors remained stable. However, as the world emerges the near collapse of the global financial system, it is time to think about medium term policies that would improve the financial prospects of emerging market countries.

It is worth mentioning that this crisis makes countries reconsider some of their policies and becomes an opportunity to introduce changes. It has, once again, shown the dangers of excessive foreign borrowing both on a net and gross basis (i.e. foreign borrowing which is not driven by a current account deficit). Hopefully, more developing countries will learn from this crisis and start to adopt prudent policies, which will isolate them from the vagaries of international finance. This transition, however, needs to be gradual. A sudden swing from a current account deficit to a current account surplus, which originates from a capital flow reversal, may have serious economic costs.

Economists and practitioners are now converging towards the idea that debt crises are related to both debt levels and debt composition and that there are important interactions between domestic public debt and external debt. Improving debt management capacity at the domestic level can lead to a more optimal debt composition and can reduce the risks of over-borrowing. At the same time, international policies can help developing countries to move to a safer debt structure which would make the countries more resilient to external shocks. One of the reasons for developing countries' high cost of borrowing is that lack of accurate and timely information on debt level and debt structure is associated with a perceived increase in the risk of the debt issued by these countries, the international community should devote more funds for technical assistance to reinforce developing countries' ability to effectively manage debt and report accurate statistics.

Even in the presence of a more coherent international financial system sovereign defaults are bound to happen. It is thus necessary to put in place a debt resolution mechanism aimed at guaranteeing a speedy and fair resolution of sovereign debt crises. UNCTAD has proposed the creation of such a mechanism for a number of years, and the current crisis has again demonstrated that the international financial system would greatly benefit from resolving debt problems in a rapid and equitable manner.

APPENDIX: EXTERNAL VERSUS FISCAL SUSTAINABILITY

Debt sustainability exercises for developing countries have traditionally concentrated on external debt. This is due to the paramount importance of the transfer problem and to the fact that, until the early 1990s, most external debt of developing countries was public and most public debt of developing countries was external. However, the crises in the 1990s and 2000s were characterized by either the presence of massive private external debt or a large stock of domestic public debt. In the current environment, about half of the long-term debt of developing countries is issued by private borrowers and more than 50 percent of public debt is issued domestically.

Therefore, when policymakers talk about debt sustainability they have in mind different definitions of debt. Some think about external debt sustainability and the associated transfer problem, others focus on public debt sustainability and the associated budgetary problem. Some even claim that there is no transfer problem associated with the presence of external private debt and that only external public debt should be of concern.[18]

Those who worry about external sustainability are interested in checking whether the country can generate the foreign currency necessary to service the external debt. However, they do not look at whether the different sectors of the economy are able to generate the resources necessary to pay their own debts. Those who worry about public debt sustainability look at the evolution of total public debt without worrying that servicing the public debt may require scarce foreign currency.

Both concepts are important, but mixing them up adds confusion to the debt sustainability discussion. The objective of this appendix is to clarify the differences between different types of debt in terms of the different types of vulnerabilities that they create.

External Sustainability

The observation that in order to repay its external debt a country needs to earn foreign currency on a net basis was at the basis of Keynes' (1929) criticism of those who thought that a large external debt is mainly a budgetary problem.

The key difference between external and domestic debt is that the ability of generating international currency to pay interest and principal is not directly related to a country's ability to grow or to broaden its tax base. Thus, debt-to-GDP or the debt-to-revenues ratios are not adequate measures of a country's ability to repay its external debt. Even the often used debt-to-exports ratio is problematic because a large export sector is not sufficient to generate the needed resources if import growth outpaces export growth.

[18] This latter view is often referred to as the Lawson doctrine and takes its name from a 1988 speech of the British Chancellor of the Exchequer Nigel Lawson who, while commenting on the UK current account deficit, stated that: "in the past […] UK current account deficits were almost invariably associated with large budget deficits, poor economic performance, low reserves and exiguous net overseas assets. The present position could not be more different." Ironically, within one year from this speech the UK entered into a deep recession.

Unless a country's external debt is issued in its own currency, the money necessary to cover international obligations on a net basis (i.e. without creating new debt) can only be generated in presence of a current account surplus. This means that net foreign debt is always a debt that has to be repaid in terms of internationally tradable goods and services.[19]

The accumulation of large net foreign liabilities is always the outcome of a persistent current account deficit. Thus, in order to evaluate whether a given amount of debt is sustainable or not, it is necessary to understand the mechanisms that drive the behavior of the current account. There is evidence that large swings in the terms of trade like those following oil price hikes have immediate and quantitatively significant consequences for trade and current account balances. In the same vein, the reduction of deficits in countries with a sizable share of tradable industrial goods usually goes hand in hand with a devaluation of the nominal and the real value of the currencies affected. Indeed, empirical evidence has shown that changes in the real effective exchange rate have the potential to reduce deficits or to induce swings in the trade and current account from deficit to surplus.

In light of this evidence, a large current account deficit accompanied by a real appreciation and a loss in overall competitiveness is a stronger indicator of non-sustainability of the resulting debt than a deficit which is not accompanied by a loss of competitiveness. It is sometimes claimed that developing countries need to accept large inflows and the resulting currency appreciation because they do not possess enough own savings and hence they need to import capital in order to invest and grow. However, this line of argument loses persuasive power in a world, where developing countries as a whole are both growing and investing at unprecedented pace and are net exporters of capital.

Moreover, as the 2004 US Economic Report of the President has put it: “The desirability of positive net capital flows and a current account deficit depend on what the capital inflows are used for. Household borrowing – an excess of household spending or investment over saving - provides a useful analogy. Household debt could reflect borrowing to finance an extravagant vacation, a mortgage to buy a home, or a loan to finance education. Without knowing its purpose, the appropriateness of the borrowing cannot be judged. Similarly for countries, borrowing from abroad can be productive or unproductive.” (p. 256). Hence, debt piled up against one or the other activity appears in different light and debt sustainability cannot be evaluated on the basis of macroeconomic ratios only.

Thus, if a country or a region faces a sharp real revaluation, the concomitant net inflow of capital should not be interpreted as a sign of strength or as the result of investors' decision to "save" in favor of this region. A sign of strength would be an inflow without an overvaluation. Otherwise, devaluing countries are exporting capital as the necessary complement of their success on the goods market and not as autonomous resource transfer. As the movement in relative prices is the cause of capital flows, it is inconsistent to complain about the negative effects of the overvaluation and to praise the net capital inflow at the same time.

[19] In theory this is also true when external debt is denominated in a country's own currency, but countries that can issue the currency in which their debt is denominated have the options to debase their debt by printing more money.

These considerations bear some important lesson for the analysis of external sustainability. In particular, the analogy with calculations of sustainable government debt is misleading and we should refrain from following this path of analysis. Any attempt in measuring sustainability needs must include a thorough analysis of the causes of indebtedness.

Fiscal Sustainability

The term "fiscal sustainability" is often used without having a clear definition in mind. The International Monetary Fund defines a policy stance as sustainable if: "a borrower is expected to be able to continue servicing its debt without an unrealistically large future correction to the balance of income and expenditure" (IMF, 2002, page 4)[20].

Formal tests of sustainability tend to be problematic and rather demanding in terms of data requirement. Thus, analysts have developed rule of thumb indicators aimed at checking whether current policies can stabilize or reduce a given debt ratio for a given real interest rate, growth rate of the economy, and initial stock of debt. This indicator is usually used to analyze the primary surplus that is required to stabilize the debt-to-GDP ratio:

PRIMARY SURPLUS = (INTEREST RATE - GDP GROWTH)*PUBLIC DEBT

There are several caveats that apply to this approach. First, it is not solidly based on any well-specified definition of sustainability and it mostly focuses on stabilizing a particular debt-to-GDP ratio but it does not say anything about the optimality of this ratio. Second, the indicator does not establish necessary conditions for long-run sustainability. There are good reasons why a country may want to run a deficit and it may be sub-optimal to prevent a country from conducting counter-cyclical policies because these policies would lead to overshooting a fiscal ratio that corresponds to a long-run equilibrium. Third, evaluating the above equation requires assumptions on GDP growth, interest rate, government expenditures and revenues, and implicitly assumes that these variables are exogenous. However, most of these variables tend to be endogenous and correlated with each other. It is unrealistic to assume that changes in the primary deficit will have no effect on the interest rate and growth, or that changes in growth do not affect the primary surplus. In fact, deficits incurred to finance public investment should be treated differently from deficits incurred to finance current expenditure. According to current practice, public sector adjustment strategies bundle together current expenditure and public investment. The Rio Group (a permanent mechanism of political consultations and interaction between 19 Latin American countries) put forward a proposal aimed at excluding investment expenditure from fiscal deficit targets. The main argument in favor of this proposal is that, as current expenditure tends to be difficult to adjust (because it is mostly composed of wages and entitlement programs), investment is the typical adjustment variable when the deficit exceeds the target. The proposal argues that the inclusion of investment expenditures in the target budget balance considers every increase in debt

[20] IMF (2002) "Assessing Sustainability." Policy paper prepared by the Policy Review and Development Department, May 28, 2002. Washington, DC.

as a reduction in government wealth, implicitly assigning no value to investment expenditure as an addition to net wealth. The Rio Group, instead, would favor the adoption of sustainability indicators similar to the one proposed by Buiter (1985)[21].

Finally, the indicator does not take into account a host of factors that characterize the situation of most developing countries and greatly increase uncertainty. In particular, developing countries often have limited capacity to raise taxes (because of a large informal sector), have a volatile revenue base, are subject to large external shocks (both real and financial) that increase the volatility of GDP growth and that of debt service, and are characterized by large levels of liability dollarization. All these elements complicate the management of fiscal policy and greatly increase the difficulty of evaluating sustainability.

Interactions between external and fiscal sustainability

There are important linkages between external and fiscal sustainability. The most obvious among these linkages is that about 50 percent of external debt of developing countries is public debt and about 50 percent of public debt of developing countries is issued externally. But there are also less obvious linkages. Consider, for instance, a country with no public debt but a large external private debt. The inability of private borrowers to service this debt can lead to a currency and banking crisis which can then have negative implications on fiscal sustainability. However, crisis can also originate in the market for domestic debt. The Mexican crisis of 1994/1995 originated in the market for CETES which are domestic currency domestic bonds and the Russian crisis of 1998 originated in the GKO market which are domestic currency domestic bonds.

The most important interaction between fiscal and external sustainability has to do with the behavior of the exchange rate and, unfortunately, this interaction introduces an unpleasant trade-off. This can be seen by recalling that a real devaluation is a necessary condition for restoring external sustainability and that a large share of public debt in developing countries is denominated in foreign currency and, as a consequence, a large devaluation can lead to a sudden jump in the debt-to-GDP ratio (for evidence along these lines see Campos, Jaimovich and Panizza (2006) "The unexplained part of public debt", Emerging Markets Review, Vol. 7/3, pp. 228-243).[22]

Hence, a currency appreciation can jointly have a positive effect on fiscal sustainability and a negative effect on external sustainability. However, if this situation is associated with a rapid deterioration of the current account, the improvement in fiscal conditions will only be temporary. This is exactly the problem

[21] Buiter (1985) "Guide to Public Sector Debt and Deficits" Economic Policy: A European Forum 1: 13-79

[22] This is the reason why the literature on original sin and currency mismatches (Eichengreen, Hausmann and Panizza (2005) " The Pain of Original sin" (in: Eichengreen and Hausmann (eds.) "Other People's Money", University of Chicago Press) argues that external borrowing may be dangerous even in the absence of a transfer problem. As the external debt of developing countries tends to be in foreign currency, a country's ability to repay its debt will depend on the behavior of the real exchange rate which, in developing countries tends to be very volatile (Hausmann, Panizza, and Rigobon (2006) "The long-run volatility puzzle of the real exchange rate" Journal of International Money and Finance, Vol. 25/1, pp. 93-124). There should be no vulnerabilities for countries, like the United States, that can borrow abroad in their own currency (or better in a currency they can print).

with the Lawson doctrine, which may lead governments to ignore their external financial fragility, which will eventually lead to a currency crisis and a fiscal crisis. However, this trade-off also implies that allowing currency devaluation in presence of foreign currency debt may lead to a debt crisis and possibly to a costly debt default. This is why some developing countries suffer from "fear of floating".

As a change in the composition of public debt and a switch to domestic borrowing can reduce these asymmetries and improve the trade-off discussed above, several developing countries are now retiring external public debt and substituting with domestically issued debt. According to some commentators and economists, this switch in debt composition will shield developing countries from future debt crises. While it is true that domestic debt tends to be safer (from the issuer's point of view), the recent switch from external to domestic borrowing may lead countries to trade one type of vulnerability for another. For instance, countries that are switching from external to domestic debt could be trading a currency mismatch for a maturity mismatch and excessive domestic borrowing could have a negative effect on monetary credibility and thus lead to high domestic interest rates (see Calvo (1988) "Servicing the Public Debt: The Role of Expectations" American Economic Review, Vol. 78/4, pp. 647-661).

These interactions between external and fiscal sustainability point to the fact that domestic debt should be included into DSA exercises. Currently, this is not common practice for at least two reasons. The first reason has to do with the fact that while domestic debt may have an effect on external sustainability, the vulnerabilities of domestic debt are different from those of external debt. Thus, it would be wrong to simply sum the two types of debt. The second reason is more pragmatic and has to do with the fact that it is hard to find data on the level and composition of domestic debt. Even worse, we do not even have a good definition of domestic and external debt. In fact, while the official definition of external debt focuses on the residence of the creditor (external debt is debt owed to non-residents), most countries classify external and domestic debt based on the place of issuance and the legislation that regulates the debt contract (external debt is debt issued in foreign countries and under the jurisdiction of a foreign court).