

INTERNATIONAL MONETARY FUND

**The Implications of the Global Financial Crisis for Low-Income Countries—An Update**

Prepared by the Strategy, Policy, and Review Department, the Research Department, the Fiscal Affairs Department, and the Monetary and Capital Markets Department

(In consultation with other departments)

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## EXECUTIVE SUMMARY

**Low-income countries (LICs) are being hit hard by the global financial crisis.** They are facing a sharp contraction in export growth, FDI inflows, and remittances, and lower-than-committed aid. As a result, economic growth this year is projected to be less than half its pre-crisis level. Moreover, though the direct impact of the financial crisis has remained limited, the risks to the financial sector from a domestic economic slowdown are a concern and have to be closely monitored.

**But a marked recovery is in prospect for 2010.** Growth in LICs is expected to rebound in line with the global recovery, as rising world demand and improved access to foreign capital enable private sector growth, which is supported also by short-term domestic policies.

**LICs are using fiscal policies to counter the effects of the crisis, and should continue to do so, where appropriate, until the economic recovery is clearly underway.** Past gains from macroeconomic stabilization and debt reduction, together with some increase in aid, have created space in many countries for short-term stimulus. About one third of LICs have augmented automatic stabilizers with discretionary fiscal stimulus, the latter targeted mainly to the spending side. While the composition of spending packages has varied, many countries appear to have chosen to increase recurrent spending. LICs are making efforts either to preserve or expand social safety nets, though their ability to do so is constrained in many cases by the lack of existing mechanisms on which to build. Countries should maintain this support for the duration of the downturn, their finances permitting.

**While fiscal policies are directed toward supporting growth, the risks to debt sustainability are rising and countries should begin preparing to realign policies toward medium-term sustainability once the recovery is clearly on the move.** LICs are relying primarily on additional domestic financing and to a lesser extent on additional external concessional resources to finance increased deficits. Though several countries are using the buffers built before the crisis, public debt in a number of LICs is expected to increase markedly in the coming years. In some cases, the risk of external debt distress is increasing. Once economic activity rebounds, stimulus measures will need to be unwound, deficits restrained, and debt reduced to sustainable levels consistent with fiscal policies that enhance growth and reduce poverty. Additional highly concessional donor support is needed to ensure that countries are not forced to make these adjustments prematurely, and to facilitate a smooth return to a sustainable debt path, with strong growth, over the medium term.

**Inflation risks have remained subdued, allowing some countries to ease monetary policy, while the use of the exchange rate as a shock absorber appears to have been limited.** Many LICs with favorable inflationary conditions have reduced key policy rates. The widespread reliance on exchange rates as a monetary anchor, however, has limited the role of exchange rate adjustment in responding to the terms of trade shocks that many countries have faced.

**LICs' external financing needs in 2009–10 are estimated to increase by around US\$25 billion a year, on average, relative to pre-crisis levels.** Increased Fund support, through the planned expansion of its lending to LICs and the recent SDR allocation, could meet almost one third of these additional needs. Other international institutions are contributing too, by augmenting and frontloading their financing activities. However, a further scaling-up of aid, at least in line with Gleneagles commitments, will be required to meet the needs, and thereby assist LICs in supporting growth and protecting the poor while maintaining debt sustainability.

## I. INTRODUCTION <sup>1</sup>

1. **This report provides an updated assessment of the implications of the global financial crisis for low-income countries (LICs) presented in the March 2009 paper.**<sup>2</sup> It takes stock of the impact of the crisis on the short-term macroeconomic outlook of LICs,<sup>3</sup> presents a preliminary assessment of countries' policy responses, estimates potential additional financing needs, and discusses the policy challenges ahead.

2. **The paper is structured as follows:** Section II discusses the outlook for global economic growth and commodity prices. Section III provides an overview of how LICs are affected by the crisis and discusses the transmission channels of the global downturn and the financial crisis. Section IV analyzes countries' fiscal policy, monetary and exchange rate policy responses, and the implications of the crisis for debt vulnerabilities. Section V presents the potential external financing needs that LICs are facing in 2009–10 and how the support of the international community, including increased assistance by the Fund, can help these countries meet them. Section VI concludes with an assessment of the challenges that LICs are facing in the period ahead.

## II. OUTLOOK FOR GLOBAL GROWTH AND COMMODITY PRICES

*The world economy is beginning to pull out of the deepest slump since the Great Depression, but stabilization is uneven and the recovery remains fragile. Financial conditions have improved, as unprecedented policy intervention has reduced the risk of systemic collapse and signs of tentative recovery are mounting. After collapsing in the second half of 2008, commodity prices have stabilized—their future path depends importantly on the timing and strength of the global recovery.*

### A. Global Outlook

3. **After several quarters of declining economic activity, high-frequency data point to a return to modest growth at the global level.** Signs of rebounding growth are

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<sup>1</sup> The paper was prepared by a staff team led by S. Fabrizio and comprising U. Das, R. Gillingham, K. Wajid, S. Tareq, M. Zephirin, K. Cheng, P. Dudine, C. Geiregat, D. Grigorian, A. Holland, D. Hostland, L. Kaltani, A. Martin, F. Painchaud, C. Papageorgiou, B. Radzewicz-Bak, A. Simone, J. Thornton, J. Tyson, H. Weisfeld, C. Arias, K. Chung, B. Dabrowka, M. Delgado-Coelho, E. Hife, M. Rousset, and J. Zaman. The work was overseen by H. Bredenkamp, S. Gupta, J. Ostry, and C. Towe.

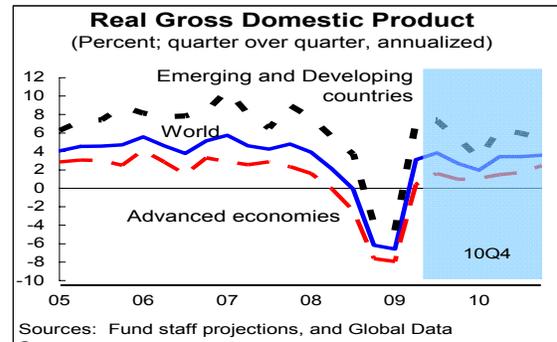
<sup>2</sup> *The Implications of the Global Crisis for Low-Income Countries*, IMF, March 2009.

<sup>3</sup> Because of data limitations, and unless indicated otherwise, information for LICs reported in this paper refers to the set of 69 countries listed in Appendix I. The analysis is based on the Fall 2009 World Economic Outlook (WEO) data.

most widespread in emerging Asia, while there are also indications that activity is starting to turn around in the United States and Western Europe.

4. **For this year, global growth is projected to contract by 1.1 percent, before expanding by around 3.1 percent in 2010.**

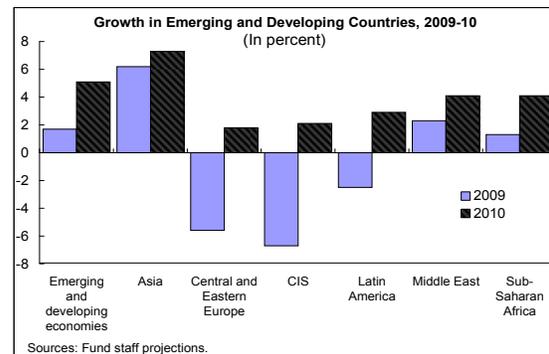
Recovery will be sluggish, however, particularly in the advanced economies, as problems in the financial sector and balance sheet adjustment continue to weigh on spending. With growth remaining sub-par, unemployment is likely to continue to rise well into 2010. Wide output gaps should ensure that inflation pressures remain subdued.



5. **Activity in the advanced economies is projected to decline by 3.4 percent in 2009, followed by a modest rebound in 2010, as deleveraging, limited credit growth, and rising unemployment continue to bear upon domestic demand.** Although projections for 2010 have been revised upward, consistent with the recent uptick in momentum, growth would still fall short of potential until late in the year, implying continuing increases in unemployment.

6. **Emerging and developing economies are projected to regain growth momentum during the second half of 2009.**

Growth in emerging and developing economies is projected at 1.7 percent in 2009, before rebounding to around 5 percent in 2010, albeit with notable regional differences (chart).

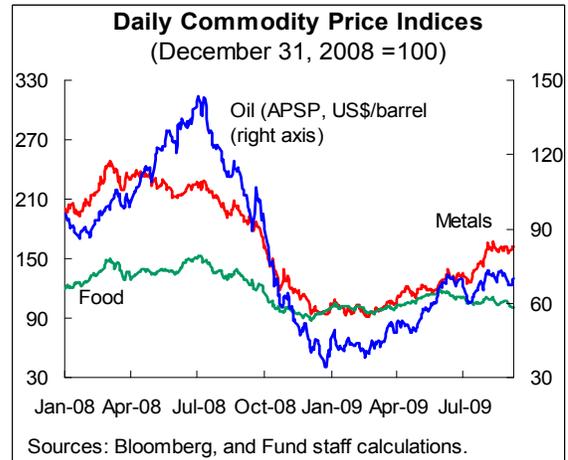


7. **Inflation pressures have remained subdued with the continued weakness of the global economy, notwithstanding the recent uptick in commodity prices.** Year-on-year world inflation moderated to 1.3 percent in August, down from around 6 percent one year earlier. In the advanced economies, headline inflation turned negative in May (and continued to be so until August) as oil prices remained far below levels one year earlier, despite their recent pickup. Similarly, headline and core inflation in the emerging markets have moderated. Risks for sustained deflation are small, as inflation expectations in most major economies hover in the 1–2 percent range.

## B. Commodity Prices

8. **After collapsing in the second half of 2008, commodity prices broadly stabilized in the first quarter of 2009 and subsequently staged a strong rally in the second quarter, possibly reflecting perceptions of an impending turnaround in global economic activity.**

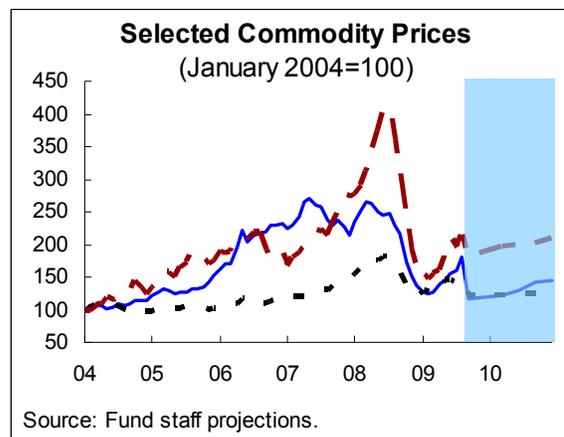
However, the magnitude of price increases varied considerably across commodities, reflecting differences in cyclical sensitivity of commodities and commodity-specific factors. Oil prices responded strongly to perceptions that the worst of the global recession was over and to signs of a demand rebound in China. Supply retrenchment, particularly OPEC production cuts, has also bolstered oil prices. Most metal prices rebounded in the second quarter of 2009, reflecting not only the improved macroeconomic/financial outlook, but also cyclical supply retrenchment and China's restocking associated with its fiscal stimulus package. Food prices also enjoyed a broad-based and modest recovery in the spring. More recently, however, commodity-specific fundamentals—including weather conditions and expanded acreage in some major crop producers—have led to a wide divergence in price changes across the major global crops.



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9. **Looking forward, the near-term outlook for commodities depends importantly on the timing and strength of the global recovery .** Compared to earlier recoveries,

commodity demand prospects will now depend more on activity in emerging and developing economies, given the steady increase in their market shares. However, a good part of the recovery appears already priced into oil and metal prices. For food commodities, prices are not expected to rise through the global economic recovery due to their relatively low sensitivity to the business cycle, although the higher cost of energy and increased biofuel usage could pose upward price risks in the longer run.



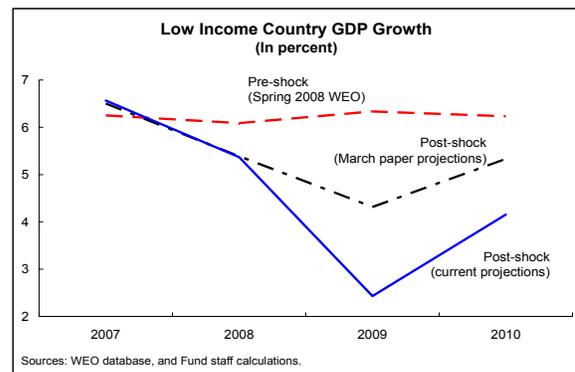
### III. HOW ARE LICs AFFECTED?

*For many LICs the crisis is expected to have a severe impact on economic growth this year, but a V-shaped recovery is in prospect for 2010.*

#### A. An Overview

10. **LICs' economies are being hit hard by the global crisis**, reflecting the sharp contraction in trade, rising unemployment, and weak internal demand in many advanced and emerging economies (Figure 1 and Appendix II). As a consequence of this major economic slowdown, the World Bank estimates that an additional 89 million people will be pushed into extreme poverty (below US\$1.25 a day) by end-2010.<sup>4</sup>

11. **Growth projections have been revised down significantly since March.** In 2009, growth is forecast at an average 2.4 percent (down from pre-crisis rates in the 5–7 percent range), mainly on account of lower trade flows, reduced remittances, and lower FDI. Economic growth is expected to recover to 4.2 percent in 2010, as increased openness to trade and foreign capital should enable the private sector to take better advantage of rising world demand, while short-term domestic policies continue to support growth. However, the speed of recovery is expected to vary significantly across regions—while Asia would witness a quick recovery, the rebound in economic activity in Latin America is expected to be much more modest (Figure 1).



12. **Despite the sharper-than-expected drop in export growth, trade and current account balance projections have remained broadly unchanged in 2009, and no further deterioration is expected for 2010.** The outlook for LICs' exports has worsened markedly for 2009, mainly reflecting lower export volumes (the overall terms of trade have instead improved, see below), with some regions experiencing a contraction in 2009. However, this is expected to be more than compensated by lower imports, reflecting the decline in food and fuel prices, reduced FDI-related imports, and, in some countries, financing constraints.

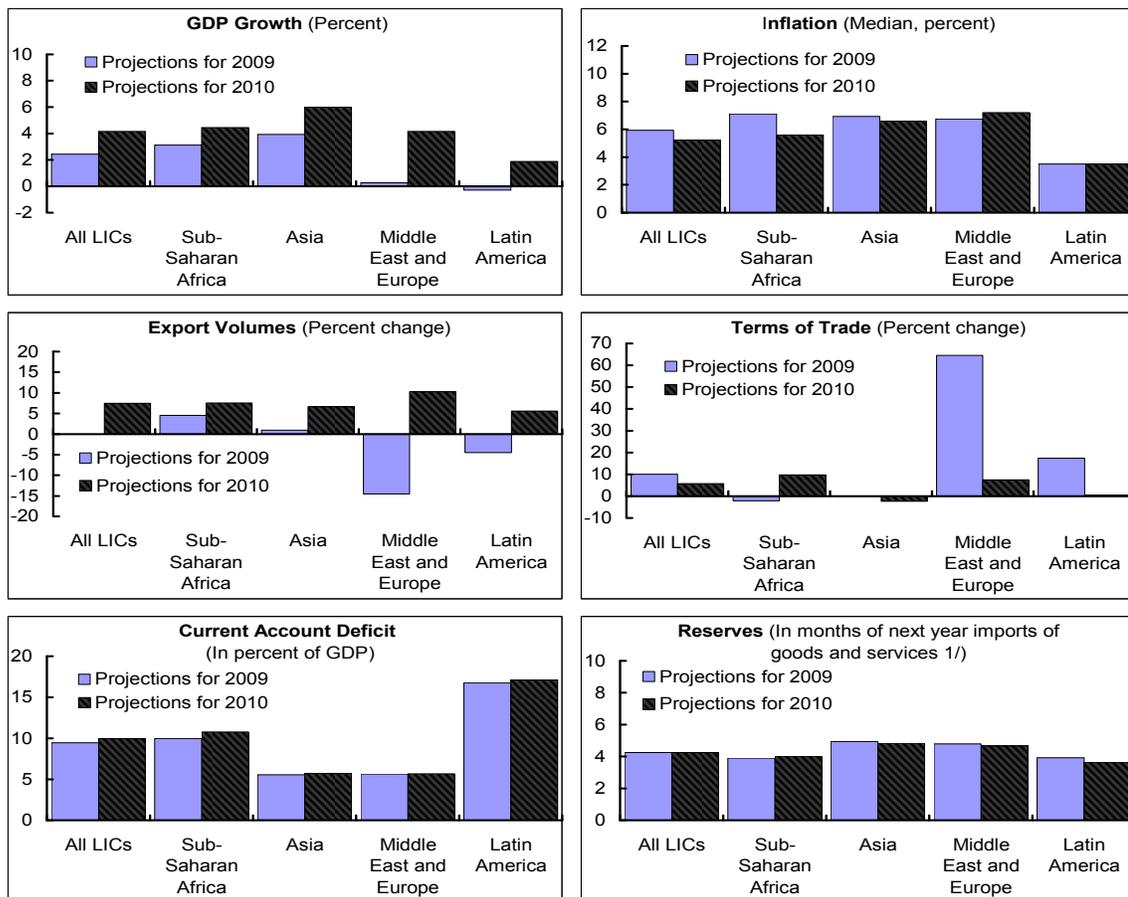
13. **The forecast for LICs' reserves in 2009 has remained broadly unchanged though with some regional differences.** Reserve coverage is projected at an average

<sup>4</sup> "Protecting Progress: The Challenge Facing Low-Income Countries in the Global Recession," The World Bank, September 2009.

4.2 months of imports in 2009, remaining broadly unchanged in 2010, provided that countries' financing needs are met (see Section V).<sup>5</sup>

14. **Inflation is expected to drop sharply in 2009 from the peaks seen in 2008, and to ease further in 2010.** The declines in food and fuel prices from their 2008 hikes, together with falling demand in the wake of the global crisis, are expected to lower inflation in 2009 to a median 5.9 percent in current projections as the subdued external environment prevents any significant inflation pass-through to wages or other prices from recent upward pressures on commodity prices.

**Figure 1. Projections for 2009 and 2010**



Sources: WEO database, and Fund staff calculations.

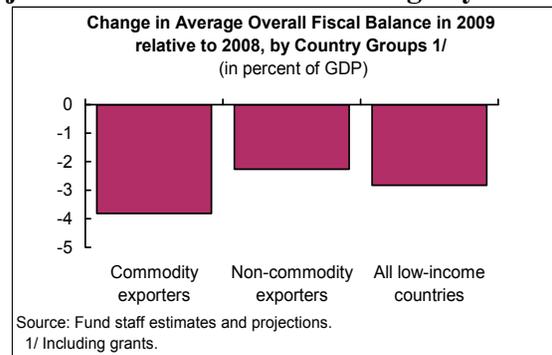
1/ Excludes the Fund SDR allocation provided in August 2009.

<sup>5</sup> The projected reserves do not include the Fund's SDR allocation provided in August 2009.

**15. LICs' overall fiscal balances are projected to deteriorate on average by about 2.8 percent of GDP in 2009.** The

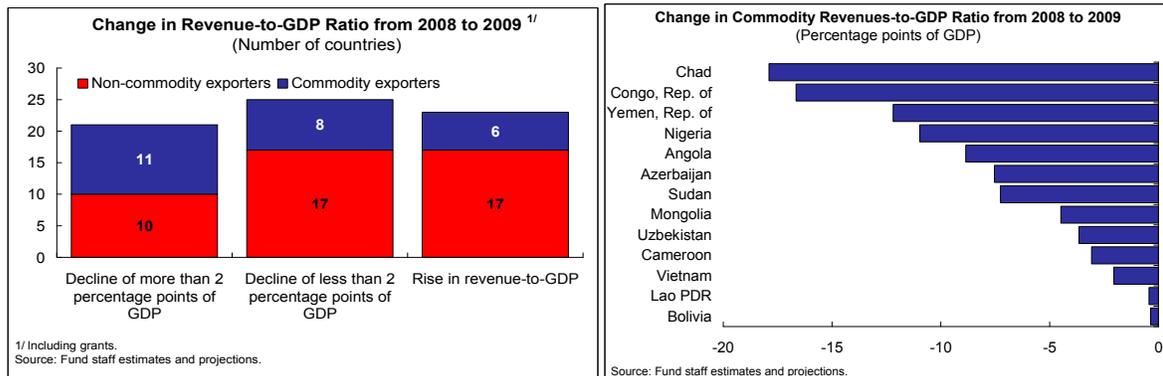
deterioration in the deficit projection reflects primarily the worsening deficits of commodity exporters. Revenues will decline with GDP, but, in addition, two-thirds of LICs are projected to see revenues fall relative to GDP, due to the disproportionate impact of the crisis on trade and commodity tax revenues as well as lower compliance.

The revenue loss for commodity exporters is expected to be more than twice the average of all LICs.



**16. Increases in public expenditure are also contributing to the fiscal expansion.**

On average, expenditure is expected to increase as a share of GDP by almost 1.8 percentage points in 2009, as planned spending increases are maintained in the face of the crisis and one-third of countries implement discretionary fiscal stimulus. The largest average increases are in capital expenditures, but the civil service wage bill in LICs is also forecast to grow, as civil servants are shielded, relative to other workers, from the decline in output.<sup>6</sup>



**17. Looking ahead, LICs are projected to begin consolidating their fiscal positions,** with overall balances expected to improve on average by around 1¼ percent of GDP in 2010, with commodity exporters adjusting their fiscal balances by about 2 percent of GDP.<sup>7</sup> For some countries, at least part of this reduction can be achieved by winding down their fiscal stimulus. However, especially for countries in debt distress, the adjustment will require

<sup>6</sup> Some categories of spending, such as transfers and other goods and services, have declined on average, although with significant variation across countries.

<sup>7</sup> Revenues are expected to rise on average by almost three-quarters of a percentage point of GDP, while expected spending restraint accounts for the rest of the improvement. Expenditure rationalization is expected to focus mainly on current expenditures, including the wage bill, transfers, and subsidies.

implementation of structural reforms, such as tax policy and revenue administration measures to augment the low revenue ratios, together with expenditure rationalization and enhanced public financial management to improve the efficiency of public spending.

## B. The Channels

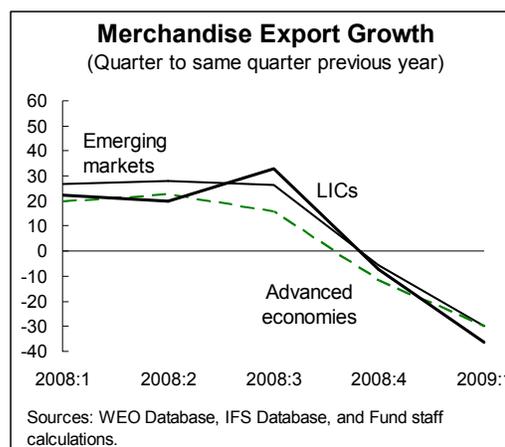
*The crisis is significantly impacting LICs through reduced demand for their exports, lower FDI, and reduced remittances. Prospective aid flows fall short of donors' commitments. At the same time, the direct impact of the financial crisis has been limited. However, risks to the financial sector from a domestic economic slowdown are a serious concern and must be closely monitored.*

### Spillovers from the global recession

#### Trade

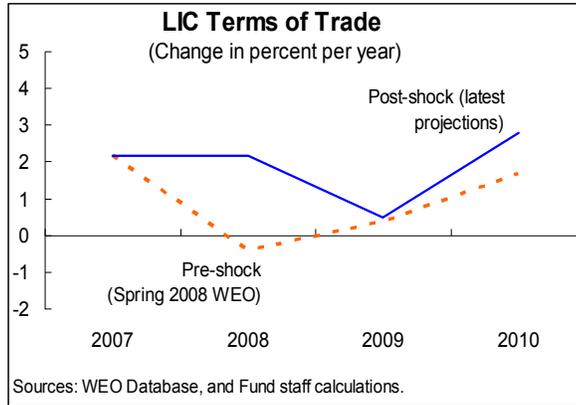
18. **The external environment for LIC exports has deteriorated substantially.** Global trade volumes are estimated to have fallen by 12 percent in 2009, driven largely by a sharp decline in advanced economies' trade but also in emerging and developing countries.

19. **LICs have seen a strong decline in merchandise exports.** Following an initial period of resilience, LIC exports started to fall in October 2008, about three months after exports began to decline in advanced and emerging market economies. The onset of the decline in imports appears to have slightly lagged that of exports. Exports of services, mainly tourism, have also declined, but by much less than goods exports, as is the case globally.<sup>8</sup> Overall exports of goods and services are expected to fall by 16 percent this year.



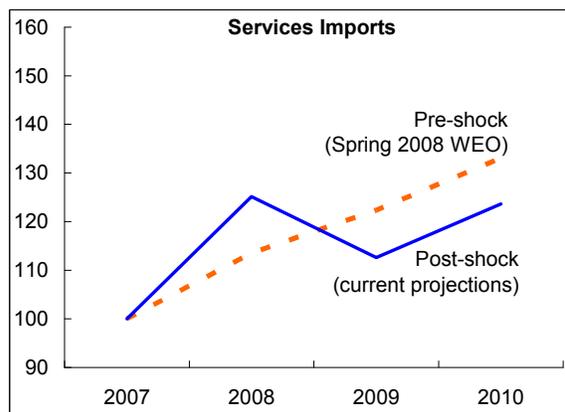
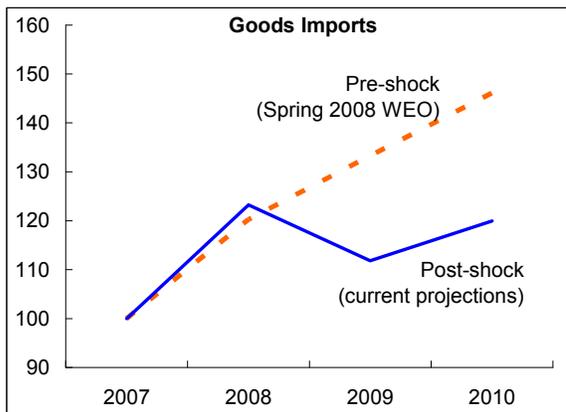
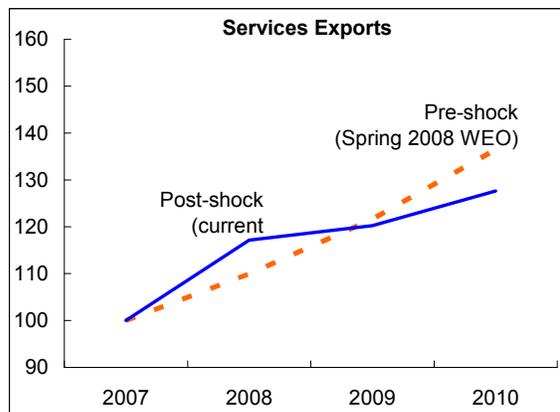
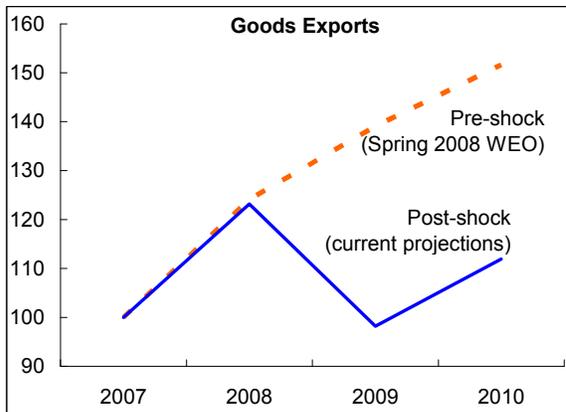
20. **LICs have seen a slight improvement in their terms of trade this year, reflecting the decline in oil prices from their peaks in 2008 as well as lower manufactured goods prices.** On average, LICs' export prices fell by 12 percent, while import prices declined slightly more, due to lower oil prices and lower prices of manufactured goods. On average, oil importers have seen a moderate terms of trade improvement, while oil exporters suffered a pronounced terms of trade deterioration.

<sup>8</sup> The larger decline in goods exports than in services exports can be explained in part by the depletion of stocks of goods in importing countries after the onset of the crisis. Depletion of stocks temporarily lowers goods imports by more than would be justified on the basis of lower growth in importing countries.



21. **In 2010, LIC trade volumes are expected to recover moderately**, reflecting projections for a renewed demand in the global economy. LIC terms of trade are projected to change only slightly.

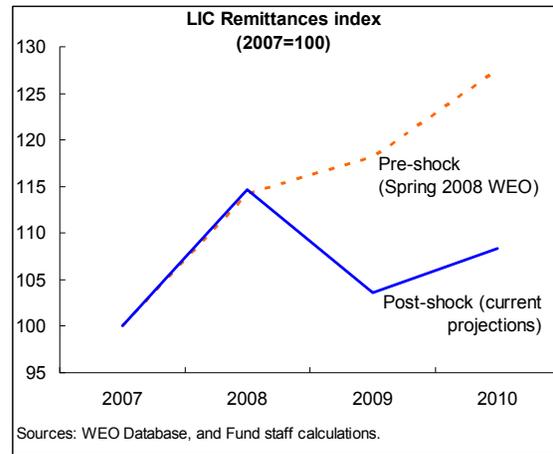
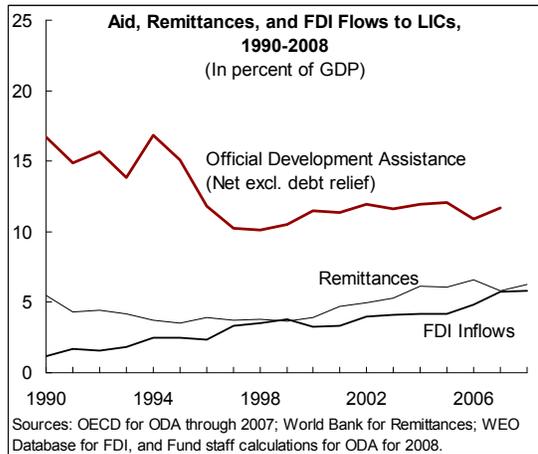
**LIC Export and Import Indices**  
(2007=100)



Sources: WEO Database, and Fund staff calculations.

## Remittances

22. **Remittances to LICs are projected to fall substantially in 2009 and to recover modestly in 2010.** The projected decline in remittances by 10 percent in 2009 is a decisive break from the recent past, when remittances were growing at double-digit rates, becoming the second largest flow to LICs.<sup>9</sup> In 2010, remittances are projected to recover somewhat but remain below pre-crisis levels.



23. **The impact of the global recession on remittances will vary from region to region depending on developments in key source countries.** Remittances to sub-Saharan Africa are likely to be affected strongly. Western Europe and the United States are the largest sources of remittances for many African countries (in 2008, over three-quarters of Africa's remittances came from these two regions), and both regions are currently experiencing significantly larger declines in economic output than the rest of the world. Remittances to Latin America are likely to be affected strongly as well, given the severity of the downturn in the United States. Similarly, some Commonwealth of Independent States countries are likely to be severely affected by the sharp contraction of the Russian economy and the depreciation of the ruble. In contrast, remittances to most Asian countries are likely to be more resilient because of their more diverse sources, and in particular their greater reliance on the Middle East, where economic activity remains relatively strong.

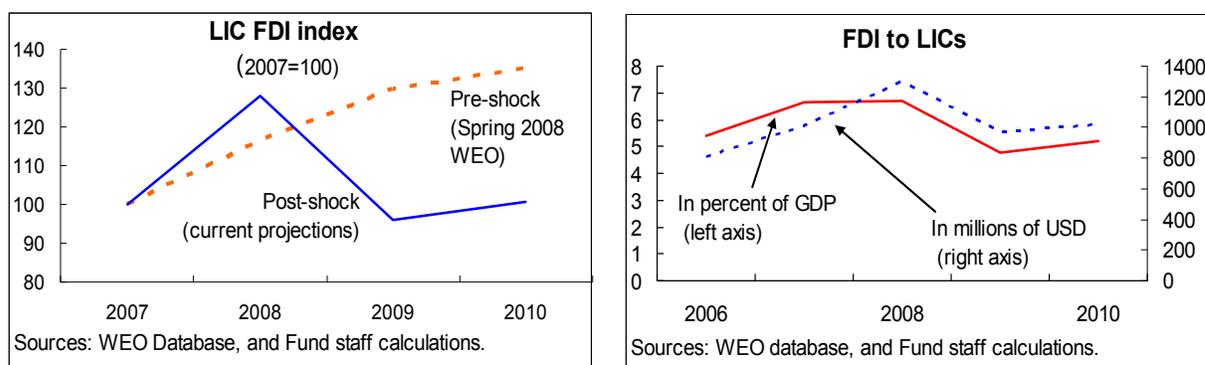
## Foreign direct investment

24. **The global economic crisis likely affects FDI to LICs mainly through changes in economic conditions in advanced economies.** Empirical evidence suggests that both

<sup>9</sup> See also *Migration and Development Brief*, No. 10, World Bank, 2009.

weak GDP growth in advanced countries as well as unfavorable global financial market conditions tend to reduce FDI flows.<sup>10</sup>

25. **Gross FDI flows to LICs are expected to fall by 25 percent this year, hurting growth prospects in recipient countries.**<sup>11</sup> A survey of investors suggests that countries in Asia could be affected the most, and countries in sub-Saharan Africa the least, by downward revisions in FDI plans.<sup>12</sup> This suggests that natural resource-oriented FDI may be affected only to a limited extent. The decline in FDI is likely to have a significant impact in many LICs, given its importance as a source of external financing for investment as well as a driver of growth (accounting for ¼ of gross fixed capital formation in LICs). The outlook for FDI in 2010 shows only a slight recovery, reflecting mainly the expectation of still sluggish growth in advanced economies.



### *Aid*

26. **Notwithstanding international commitments to scale up aid, overall aid flows to LICs are expected to grow only marginally in 2009 and remain broadly stable in 2010.** To meet Gleneagles commitments, aid flows would need to grow by 11 percent in real terms per year during both 2009 and 2010, and current indications are that donor plans fall well short of this.<sup>13</sup>

<sup>10</sup>See e.g., E. Levy-Yeyati, U. Panizza, and E. Stein, 2007, The cyclical nature of North-South FDI flows, *Journal of International Money and Finance*, 26(1), p. 104–130.

<sup>11</sup> Net FDI to LICs is projected to decline by 7 percent.

<sup>12</sup> *World Investment Prospects Survey 2009–11*, United Nations Conference on Trade and Development, New York and Geneva, 2009.

<sup>13</sup> The 2005 Gleneagles G8 Summit committed to raise official development assistance (ODA) provided by the members of the OECD's Development Assistance Committee (DAC) to developing countries by US\$50 billion (in 2004 prices), from US\$80 billion in 2004 to US\$130 billion in 2010. Half of this increase was to go to

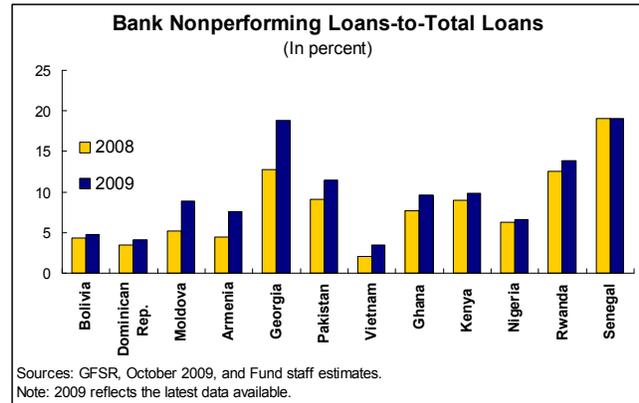
(continued)

## Direct financial channels

### *Developments in the banking sector*

27. **As anticipated in the March report, the direct impact of the global financial crisis on the banking system in LICs has been limited, but funding for bank operations has come under pressure in some countries.**

The lack of exposure to sub-prime mortgage loans and complex derivative instruments insulated LIC banking systems from direct effects of the crisis. Nevertheless, while some larger banks have succeeded in securing long-term funding from international financial institutions, the deterioration in global market liquidity has put strains on foreign branches and subsidiaries that relied on credit lines from parent



institutions.<sup>14</sup> Moreover, the effectiveness of policy responses to ease domestic liquidity conditions has been impeded by shallow domestic financial markets and limited collateral.

28. **Pressures on banks' loan portfolios have begun to emerge in some countries reflecting second-round effects of the crisis.** Although the available data are limited, there are indications that non-performing loans (NPLs) have increased in 2009 as macroeconomic risks have begun to materialize. This deterioration is particularly acute in countries with limited sectoral diversity in loans. As many NPLs are relatively new, and therefore not yet fully provisioned, bank earnings are likely to deteriorate going forward. Some banks have, however, started the process of rescheduling and restructuring their credit portfolios.<sup>15</sup>

29. **In several countries, asset quality has also deteriorated as a consequence of the impact of falling equity prices on loans for share purchase, or collateral in the form of shares.** Rising equity markets prior to the crisis encouraged borrowing for stock market investment, frequently in the form of margin loans. Not only have such loans become non-

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countries in Africa. ODA provided in 2008 was US\$29 billion short of the Gleneagles target for 2010, with a particularly large shortfall for aid to Africa (World Bank, Global Monitoring Report, 2009).

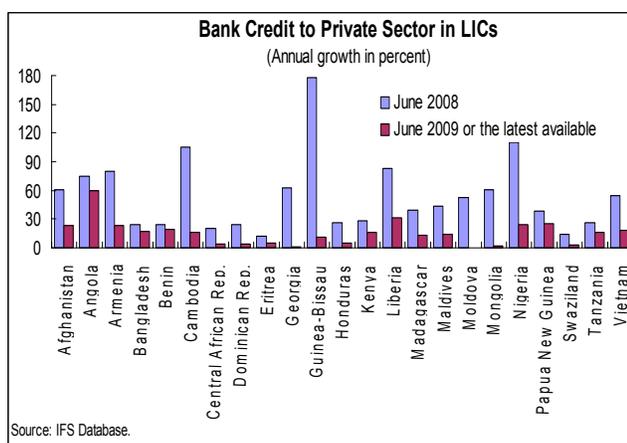
<sup>14</sup> Some banks in LICs, facing difficulties with access to funding from their parent institutions, turned to international financial institutions (IFC, ADB, EIB, and FMO) to secure their long-term liquidity. While these types of loans have proved to be successful for big banks, small banks have limited access to this type of funding.

<sup>15</sup> For example, Tanzania.

performing, but the steep decline in share prices also revealed weaknesses in the regulatory framework for domestic capital markets as well as gaps in the regulation of credit risk and bank reporting, since banks were able to delay booking losses on these loans. The Nigerian central bank's intervention in five banks in August is the most illustrative example.

30. **Falling international interest rates have reduced earnings from foreign placements.**<sup>16</sup> Most LIC banks have placed part of their deposits (up to 10 percent of total assets in some cases), in banks abroad. These portfolios have been adversely impacted by falling interest rates and higher counterparty risk. In response, there are signs that, in some countries, banks are repatriating funds or reallocating these foreign deposits toward other countries where interest rates are higher or deposit guarantee schemes are fuller.<sup>17</sup>

31. **As capital inflows and remittances declined, bank earnings from foreign exchange operations have also been hit.** Earnings from foreign operations have declined in the WAEMU region, Armenia, the Kyrgyz Republic, Ghana, Tanzania, and Zambia as a result of reduced foreign inflows. Lower capital flows and remittances have also reduced the value of bank collateral by contributing to declines in real estate prices, and, in countries such as Tajikistan, have been important enough to have reduced system deposits.



32. **Domestic bank lending has been curbed as a result of their deteriorating positions.** In response to the increase in NPLs, lower profitability, and higher funding costs, many banks have increased lending rates and tightened credit conditions. In almost all LICs, bank credit to the private sector slowed sharply in the year to June 2009, albeit from exceptionally rapid growth rates in some countries.<sup>18</sup> In some countries, particularly in sub-Saharan African, the supply of credit to specific sectors, such as real estate, has been particularly constrained. Although some countries have worked out rescue plans to relieve

<sup>16</sup> Central banks' earnings on international reserves will have been similarly affected, which could correspondingly reduce dividend payments to governments.

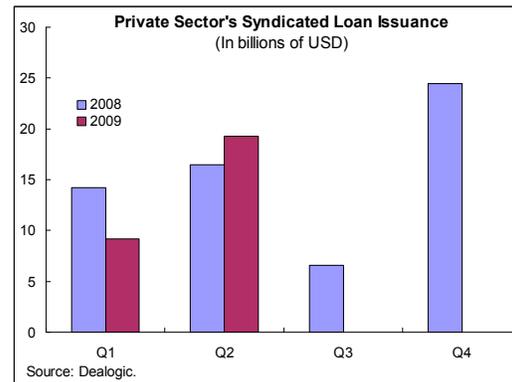
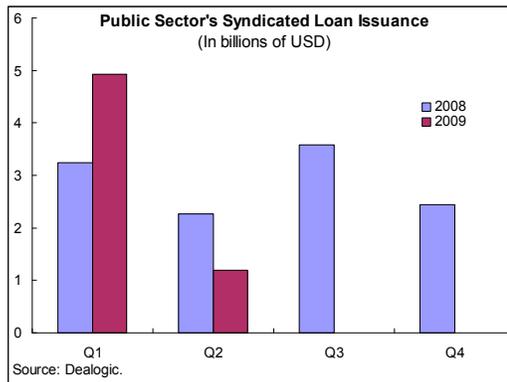
<sup>17</sup> For example, banks in Cambodia, Côte d'Ivoire, Mali, and Tanzania.

<sup>18</sup> Note that this outcome reflects both constraints in the supply of credit, but also, in some instances, a decline in demand for credit as corporates react to the deterioration in the economic outlook.

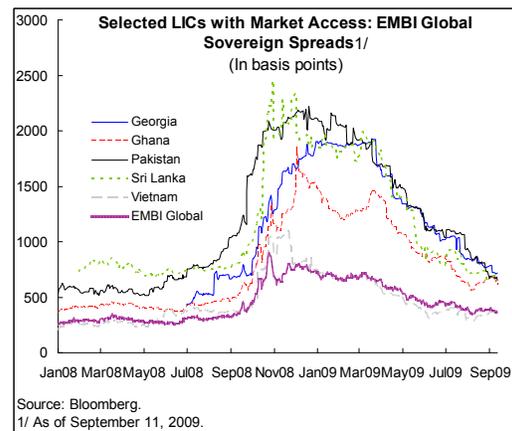
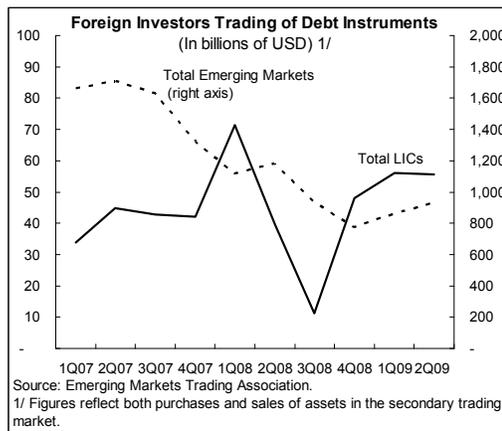
the pressure on banks' balance sheets, these strategies are likely to be reserved for systemically important financial institutions.

### *Sovereign access to financing*

33. **The potential for LIC sovereigns to access commercial external financing appears to have improved somewhat.** Credit ratings on LICs have held up well,<sup>19</sup> and the public sector has been active in the external syndicated loan market, with the flow of new loans to LIC sovereigns up 11 percent in the first half of 2009 compared to the second half of 2008, with, for example, Angola and Ghana tapping this market.



34. **Conditions in international bond markets have also eased.** Nevertheless, despite the marked improvement in spreads since late 2008, spreads remain significantly elevated.



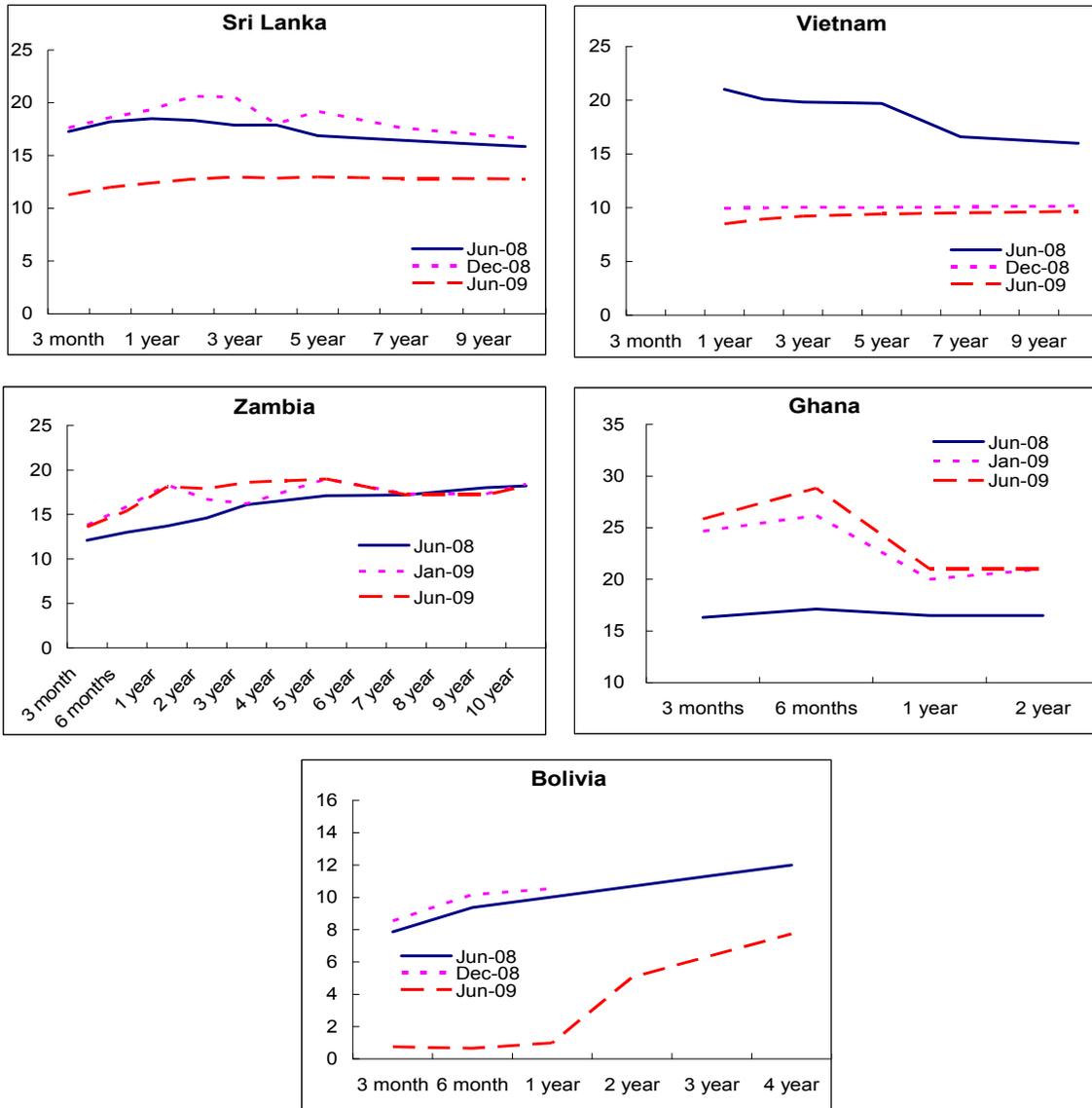
35. **This improvement in external conditions is reflected in increased activity by foreign investors in LIC debt securities.** In the 6 months to March 2009, activity by foreign

<sup>19</sup> In the period since Lehman Brothers collapsed in September 2008, there have been only two downgrades (Mongolia, Sri Lanka), and one upgrade (Pakistan) with one other on positive outlook (Vietnam); this compares with seven emerging markets upgraded and 21 downgraded, some by several notches, over the same period.

investors increased in all regions, barring Latin America, with the most significant gains in Asia and Middle East and Europe. This activity is mostly concentrated in local markets.

36. **Developments in domestic financing conditions have been more uneven.** For instance, in Asia, domestic financing conditions appear to have improved significantly, with yields falling across the curves quite sharply; however, as discussed above, tighter domestic liquidity conditions have seen yields increase substantially at the short-end in several sub-Saharan African LICs.

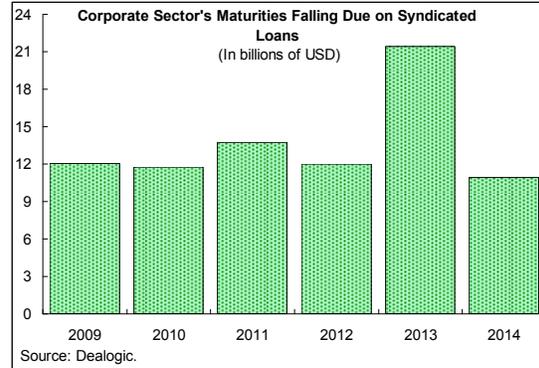
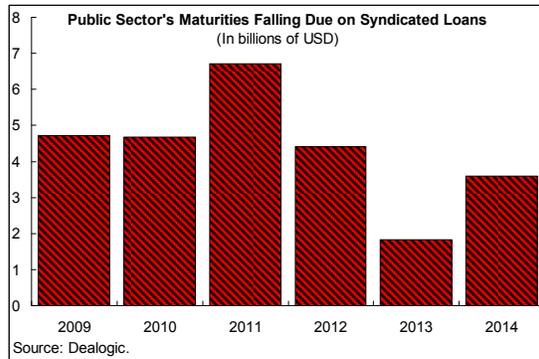
**Evolution of the Yield Curve**



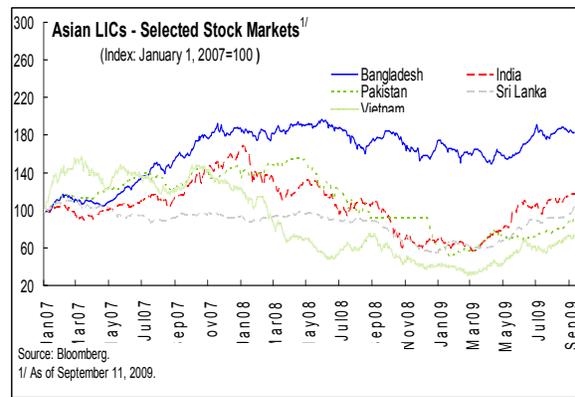
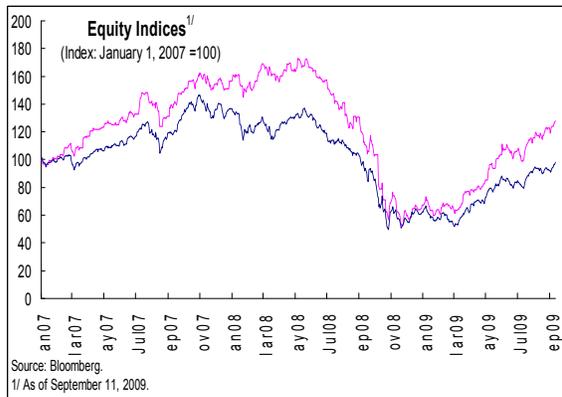
Sources: Bloomberg, and central banks.

### *Corporate access to financing*

37. **Corporates continue to face challenging financing conditions both in external and domestic markets.** The flow of externally sourced syndicated loans to corporate sectors in LICs has declined by around 8 percent in the first half of 2009 compared to the second half of 2008 (for example, Angola and Liberia). This is a particular concern given the extent of the refinancing needs facing the corporate sector. Corporate access to domestic bank financing tracks the general picture discussed above.



38. **Nevertheless, in line with broader global developments, conditions in equity markets show some improvement.** Having reached a low around the turn of the year, the Merrill Lynch Africa Lions Index rose by close to 60 percent in the period January–June 2009. Though not universal, this pattern is also repeated in other LICs (e.g., Sri Lanka and Vietnam), suggesting that some corporates might have scope to access capital through the stock market.



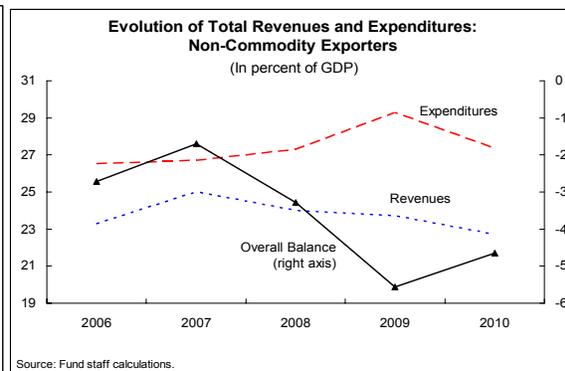
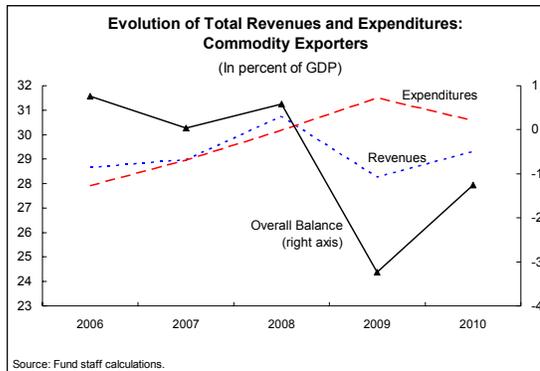
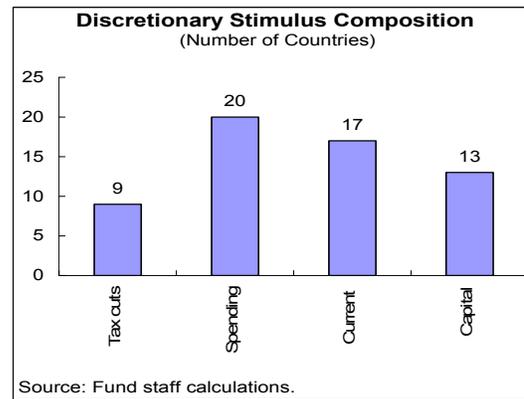
#### IV. POLICY RESPONSES

*Most LICs are running fiscal countercyclical policies, preserving or expanding spending to support the economy and protect the poor. But, given the limited scaling-up of aid, many countries are resorting to domestic financing and some are taking risks with their medium-term debt sustainability position. These heightened vulnerabilities could be manageable under a combination of scale-up aid and fiscal adjustment. Some countries have also eased monetary policy as pressures on inflation have subsided, reflecting lower global commodity prices and reduced growth. The use of the exchange rate as a shock absorber appears to have been limited.*

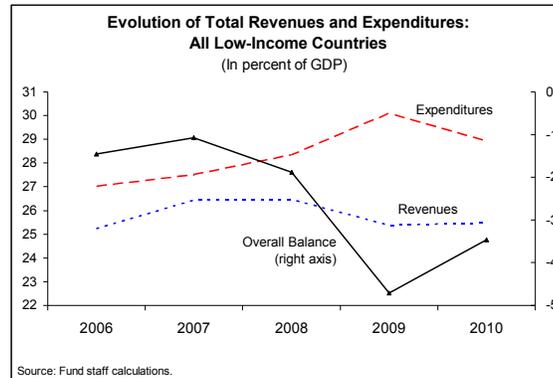
#### Fiscal policy

#### 39. In response to the crisis, fiscal deficits are increasing in three-quarters of LICs.

The widening budget deficits reflect the functioning of automatic stabilizers, predominantly on the revenue side. In addition, almost one-third of countries are augmenting automatic stabilizers with discretionary stimulus, concentrating on the expenditure side, typically current spending. However, several countries are faced with financing constraints and about one-third could confront important challenges in ensuring fiscal sustainability in the medium and long term.<sup>20</sup>



<sup>20</sup> The focus of fiscal stimulus measures on current spending contrasts with the G20 experience with fiscal stimulus, which has been more oriented to capital spending. In addition, however, many LICs are projected to maintain increases in capital spending planned before the onset of the crisis. Thus, explicit overall fiscal stimulus in LICs has been more limited than that implemented in G20 countries. See <http://www.imf.org/external/pubs/cat/longres.cfm?sk=23129.0> "The State of Public Finances: A Cross Country Fiscal Monitor" SPN/09/21.



40. **The prevalence of fiscal easing appears to have been greater in countries with low or moderate risk of fiscal distress prior to the crisis.** Almost four-fifths of these countries are projected to increase their deficits as a share of GDP between 2008 and 2009, compared to two-thirds of those at high risk of debt distress or in debt distress. Conversely, one-third of countries in serious risk of debt distress are projected to tighten fiscal policy, compared with only one-fifth of those with low or moderate risk ratings. Adjustment measures in these countries generally took the form of spending cuts, most commonly on current (non-social) spending.

41. **Countries with Fund-supported programs have been flexible in allowing automatic stabilizers to work and accommodating fiscal stimulus.** Fiscal stimulus measures in program and non-program countries have a similar emphasis on social spending (in about 70 percent of countries in each group), but program countries place a stronger emphasis on capital investment (88 percent versus 29 percent). In addition, in non-program countries, increases in non-social current spending and tax cuts are more prevalent. Structural reform in areas such as revenue administration, public financial management, and tax policy have been undertaken in almost one-half of Fund-supported program countries, compared to one-third of non-program countries.

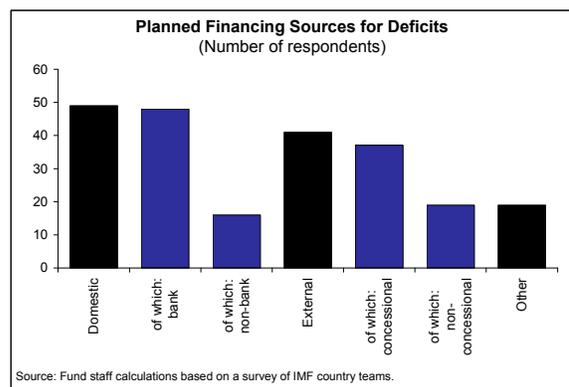
42. **Most commodity exporters have thus far cushioned the fall in commodity prices by running larger deficits, but they are expected to adjust their spending in the medium term.** Total expenditure as a share of GDP increased between 2007 and 2009 in many commodity exporters; it was financed mainly by a drawdown of deposits.<sup>21</sup> However, most commodity exporters intend to reduce their total spending in 2010 relative to 2009.

43. **LICs have sought to preserve or increase social spending in the face of the recession.** Based on a sample of 31 countries for which data are available, 24 LICs are either preserving or increasing real social spending, including 15 countries that have initiated a

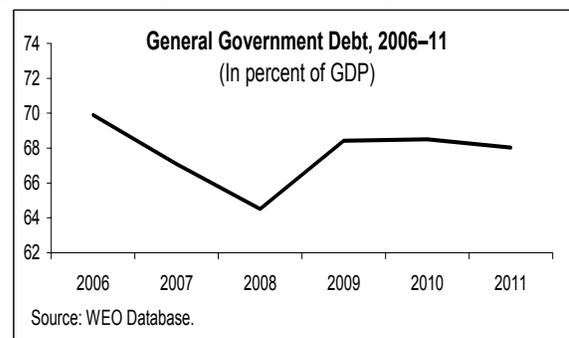
<sup>21</sup> As argued in <http://www.imf.org/external/pubs/cat/longres.cfm?sk=22938.0> "Fiscal Policy in sub-Saharan Africa in Response to the Impact of the Global Crisis" SPN/09/10, stimulus could also be less effective in these countries, since the stimulus may be unable to either directly or indirectly make up for the lost external demand.

Fund-supported program in 2008–09. Even in those countries that had to tighten fiscal policy, social spending appears to have been protected. However, the ability of many countries to expand social safety net programs has been severely constrained by a lack of existing mechanisms on which to build. Social support measures have most commonly taken the form of public works programs, cash transfer programs and increased subsidies.<sup>22</sup>

44. **To finance larger deficits, LICs appear to be relying primarily on additional domestic financing and to a lesser extent on external concessional support.** Across the 40 countries for which data are available, the increase in domestic financing is projected to be six times as large as the increase in external financing. This is consistent with the indications, cited earlier, that aid flows are not likely to increase significantly this year. A number of countries will have access to nonconcessional external financing, consistent with the improving conditions for LIC sovereigns.



45. **The decline in LICs' debt-to-GDP ratios in recent years has helped create room for countercyclical borrowing, but risks to debt sustainability are rising in some countries.** Public debt ratios were on a declining trend through 2008, reflecting an extended period of fiscal consolidation, strong growth, and debt relief. On current projections, this trend will turn around in 2009, and (absent adjustment) we could see rising debt ratios for several years to come. The risk of debt distress could increase in a number of LICs (see Box 1). Rising debt levels will squeeze the fiscal space for more productive public spending. The implications of this for policy, going forward, are discussed in Section VI.

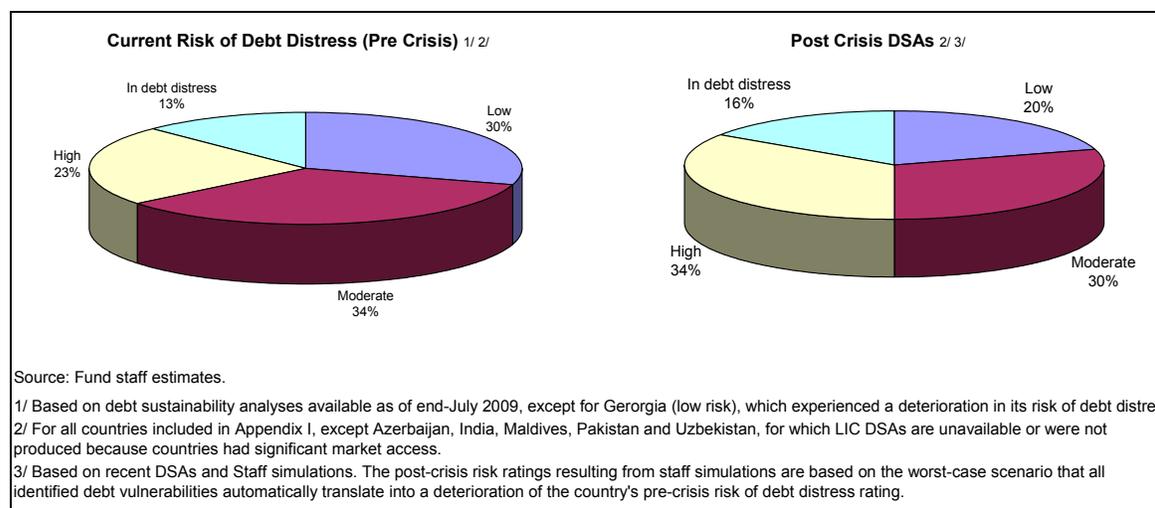
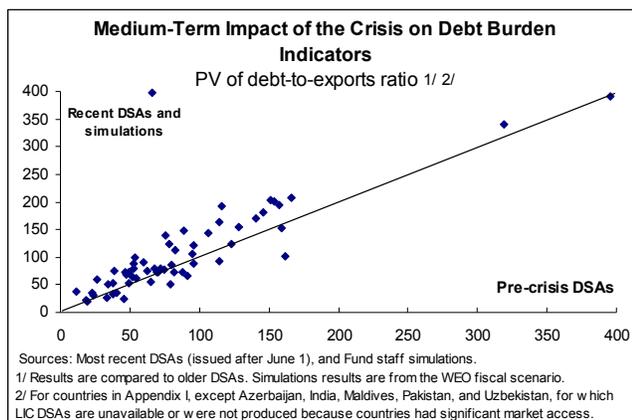


<sup>22</sup> LICs are also incurring costs for bank recapitalization, but appear less exposed to contingent liabilities. Since the summer of 2008, just over ¼ of LICs have incurred fiscal costs for bank recapitalization, with the budgetary impact averaging about 1.2 percent of GDP. Very few LICs have seen contingent liabilities such as PPPs, concession guarantees, and credit guarantees materialize.

### Box 1. Debt Vulnerabilities

**LICs made important gains in reducing external debt vulnerabilities before the crisis.** Based on debt sustainability analyses (DSAs) mostly undertaken during the last year, almost two thirds of all LICs were classified as having either low or moderate risk of debt distress. This reflected, in varying degrees, a combination of better macroeconomic policies, higher aid, debt relief, and supportive global economic conditions.

**The ongoing global crisis has increased debt vulnerabilities in LICs.** The downturn in GDP, exports and government revenues directly increases the standard debt burden indicators. Concurrently, some countries have increased external borrowing in order to cushion the impact of the crisis and safeguard social and development objectives.



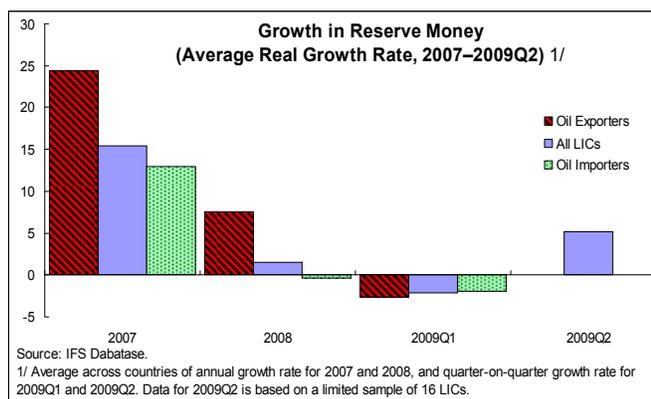
**Recent DSAs and staff simulations suggest that a number of countries could move into higher debt risk categories.<sup>1/</sup>** Since the crisis broke, only one country (Georgia) has seen its debt distress rating deteriorate.<sup>2/</sup> Of those currently rated at high risk, only Afghanistan appears particularly vulnerable as a result of the crisis. However, Afghanistan's vulnerabilities are mitigated by its eligibility for assistance under the Heavily Indebted Poor Countries (HIPC) Initiative. Eight moderate risk countries could face increased debt vulnerabilities (Ethiopia, Lesotho, Malawi, Mauritania, Nepal, Nicaragua, St. Vincent and the Grenadines, and Sierra Leone). For Ethiopia, Mauritania, Nepal, Nicaragua, and St. Vincent and the Grenadines, the heightened vulnerabilities appear to be limited, as the debt burden indicators under the DSA simulations breach their thresholds only slightly and temporarily.

<sup>1/</sup> Where recent DSAs were not yet available, simulations were used to update some of the projections in pre-crisis DSAs. See Appendix III for a detailed description of the methodology, and of the thresholds in the debt sustainability framework.

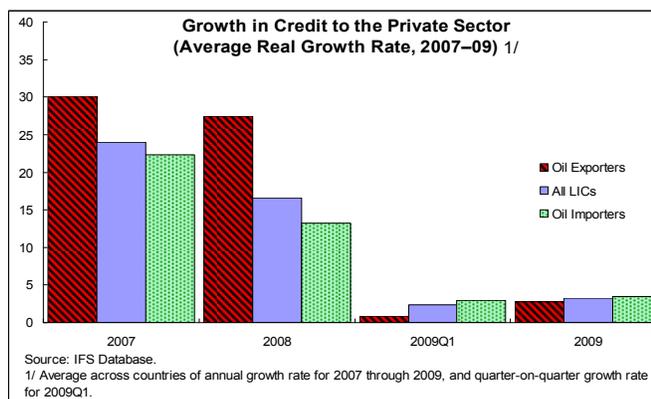
<sup>2/</sup> This regrading reflected the impact of Georgia's conflict as well as the global financial crisis.

## Monetary and exchange rate policy

46. **Monetary policy has generally been eased in the face of the crisis, as inflation has subsided.** Those countries that have seen a significant decline in inflationary pressures—including most in sub-Saharan Africa—have reduced policy interest rates since the crisis broke and thereby offset some of the implied increase in real interest rates.<sup>23</sup> Only a few countries such as Zambia and Angola, have raised policy interest rates in an effort to curtail mounting inflationary pressures. Also, after slowing in 2008 and becoming negative in the first quarter of 2009, reserve money growth, adjusted for inflation, has increased in the second quarter, for one-quarter of LICs for which data is available. Many countries, in particular those that do not have in place a framework for conducting monetary policy, have mainly relied on exchange rate policy as an anchor.



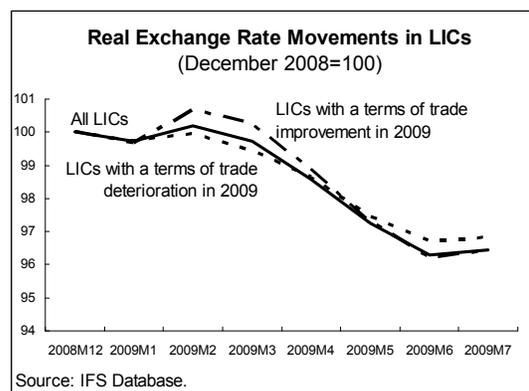
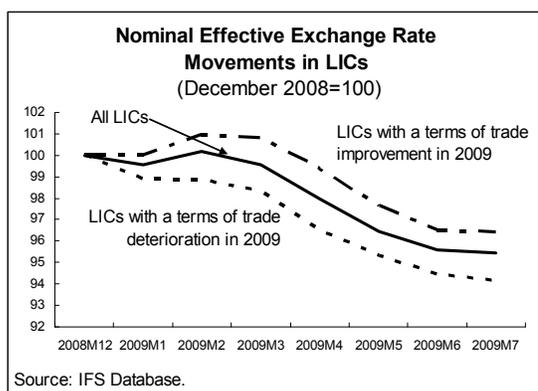
47. **After slowing drastically in the first half of 2009, credit to the private sector is expected to pick up in the second half of the year.** Private credit slowed substantially in 2008, especially among oil-importing countries, albeit from rapid growth rates (see also paragraph 32). Credit growth slowed further in the beginning of 2009 and among oil-exporters nearly came to a halt. However, as global financial conditions improve and domestic monetary policies remain supportive, credit to the private sector is expected to resume in the second half of 2009 and it is forecast to grow on average in real terms at 3.3 percent for the year.



48. **On the whole, exchange rates have not played a prominent role in helping low-income countries adjust to the dramatic slowdown in economic activity and trade since mid-2008.** To some extent, this was to be expected given the global nature of the financial crisis and ensuing economic slowdown worldwide. However, almost a third of LICs

<sup>23</sup> *Sub-Saharan Africa: Weathering the Storm*, Regional Economic Outlook Fall 2009, IMF September 2009.

witnessed a terms of trade deterioration greater than 5 percent, of whom more than half have a de facto fixed exchange rate regime. The ten countries adversely affected by a terms of trade shock with a flexible exchange rate regime allowed the nominal effective exchange rate to depreciate on average by 10 percent since last December. Though countries experiencing a terms of trade deterioration have in general allowed a somewhat greater nominal effective exchange rate depreciation than countries whose terms of trade have improved, they have not witnessed a significant improvement in real effective terms. This partly reflects lower inflationary pressures as food and energy prices subsided from their peak in mid-2008, but also the limited use of exchange rate flexibility as a shock absorber.



## V. FINANCING NEEDS AND SUPPORT FROM THE INTERNATIONAL COMMUNITY

*LICs are facing large financing external needs in 2009–10—averaging about US\$25 billion a year higher than in 2008. The Fund and other International Financial Institutions (IFIs) have increased their financial support, but, in order to help LICs navigate smoothly through the storm, it is crucial to scale up aid at least to the Gleneagles commitments.*

49. **In 2009–10, net external financing needs are projected to be on average about US\$25 billion a year higher than in 2008.** This represents the amount of official financial support that would be needed for LICs to maintain a comfortable level of reserves while preserving import volumes at pre-crisis levels (Box 2).

50. **Increased financial support from the Fund could meet almost one third of these additional financing needs.** The Fund expects to increase its concessional lending in 2009–10 to around US\$4 billion a year—up from US\$1½ billion in 2008.<sup>24</sup> In addition, LICs received the equivalent of approximately US\$20 billion from the SDR allocation made by the Fund in August 2009. Since these SDRs directly augment member countries’ reserves, they will make an important contribution—of roughly US\$10 billion in total—to meeting LICs’

<sup>24</sup> In the first eight months of 2009, the Fund’s new concessional lending totaled US\$3.1 billion.

estimated financing needs.<sup>25</sup> This brings total additional Fund support for LICs to around US\$15 billion in 2009 and 2010 combined.<sup>26</sup>

### **Box 2. External Financing Needs**

**External financing needs are based on estimates of the amount of official financial support that would be needed for LICs to maintain a comfortable level of reserves while avoiding a compression of imports relative to pre-crisis levels.**<sup>1/</sup> Gross external financing needs for each country were taken to be the sum of: (i) the current account deficit excluding official transfers; (ii) amortization payments; (iii) arrears clearance;<sup>2/</sup> and (iv) the change in international reserves. Net financing needs were then computed by subtracting: (i) net FDI flows; (ii) net private portfolio investment; (iii) net private other investment; and (iv) other net capital account transactions. Since needs measured in this way would not take into account undue reserve depletion or import compression, they were adjusted in two ways:

First, for each country an amount was added, where needed, to allow reserve cover to be maintained at a minimum of three months of imports. (Conversely, reserve accumulation beyond four months of imports was excluded from the needs calculation.).

Second, financing needs were increased, where needed, by an amount that would allow import volumes to be maintained at their 2006–08 average level.<sup>3/</sup>

**As with all such exercises, these estimates need to be viewed with caution** given data limitations and the stylized nature of the assumptions (which do not take into account many country-specific factors).

<sup>1/</sup> India is excluded from the sample because the size of its economy would distort calculations.

<sup>2/</sup> The figures are adjusted to exclude the impact of debt relief.

<sup>3/</sup> Imports are computed as the average volume for 2006–08, multiplied by the deflator for the year under consideration.

<sup>25</sup> The contribution to the estimated financing needs is less than the full US\$20 billion for two reasons: first, part of the allocation is for countries not included in our sample; and second, for some countries, the SDR allocation exceeds their estimated financing need.

<sup>26</sup> While the SDR allocation helps boost reserves, it should not be viewed as substituting for donor support since the use of the allocation is effectively charged at the variable nonconcessional SDR interest rate.

Estimated Balance of Payments Financing Needs, 2009–10								
	Total Financing Needs				Needs relative to 2008			
	2009		2010		2009		2010	
	In US\$, Billions	Number of countries	In US\$, Billions	Number of countries	In US\$, Billions	Number of countries	In US\$, Billions	Number of countries
<b>Total Net Needs</b>	<b>81</b>	<b>(63)</b>	<b>81</b>	<b>(61)</b>	<b>25</b>	<b>(39)</b>	<b>25</b>	<b>(37)</b>
<i>of which:</i>								
unadjusted net needs	63	(65)	77	(63)	7	(33)	21	(31)
adjustment to avoid import compression 1/	10	(17)	7	(14)				
adjustment to ensure adequate reserve coverage 2/	8	(27)	-3	(14)				

Sources: WEO database, and Fund staff calculations.

1/ Needs increased to provide for import volumes at average 2006–08 levels.

2/ Reserves increased to at least 3 months' import cover, and adjusted to ensure no reserve accumulation beyond 4 months.

51. **Other IFIs have also stepped up their support in response to the crisis.** The World Bank Group will accelerate disbursements from IDA15 in order to strengthen safety nets, other social spending, and infrastructure in LICs. Other development institutions are also increasing their support, including under the African Development Bank's Emergency Liquidity Facility and Trade Finance Initiative, and the Asian Development Bank's crisis-related lending programs.

52. **Scaling-up aid at least in line with the Gleneagles commitments is key to help LICs meet their financing needs.** If the Gleneagles commitments were met, the result could be an additional US\$15 billion for LICs in 2009–10. This, combined with increased financial support from the Fund and other IFIs, would go most of the way toward meeting LICs' financing needs, allowing these countries to implement policies that support growth and protect the poor while maintaining debt sustainability.

## VI. CHALLENGES AHEAD

53. **The use of fiscal and other policies to counter the effects of the recession should continue, where appropriate, until it is clear that recovery is underway.** Past gains from macroeconomic stabilization and debt reduction, together with some increase in aid, have created space in several LICs for countercyclical fiscal policies. That space is now being used to preserve or increase spending in the face of falling revenues, providing support to the economy and to the poor. This is welcome, and countries should maintain this support for the duration of the downturn, their finances permitting.

54. **With the prospect that recovery may begin soon, however, policymakers in LICs, as in the rest of the world, should begin preparing to realign policies toward medium-term sustainability.** Already, the risk of debt distress appears to be increasing in some countries. Once economic recovery begins, it is therefore crucial that fiscal deficits be scaled back to sustainable levels, and fiscal space is created to support policies that enhance growth and reduce poverty. Any necessary fiscal adjustment should be implemented in the context of a medium-term framework that recognizes the particular circumstances of each country. Some countries in debt distress will need to commit not only to increasing the

efficiency of public spending, but also to expanding the revenue base to achieve their fiscal objectives. This is particularly important for commodity exporters, where implementation of supporting structural reforms has been less prevalent. The stakes here are very high. Prolonging expansionary fiscal policies unduly, far from supporting medium-term growth, may undermine it as debts become unmanageable. The “lost decade” of low-growth in many highly-indebted countries in the 1980s provides a cautionary tale.

**55. Further increases in concessional financial support are needed to help LICs smooth adjustment in 2009–10 without further aggravating risks to debt sustainability.**

The estimated external financing needs for this year and next can be met only with a substantial scaling up of donor support, at least in line with the Gleneagles commitments. Shortfalls in aid could force countries either to adjust before the recovery is underway or to take on nonconcessional debt that they cannot afford.

**56. Although the world economy is on the mend, LICs cannot count on a return to the unusually supportive pre-crisis global environment, and will need new engines to drive strong economic growth.** A rapid recovery in FDI flows and remittances, for example, seems unlikely, given the possibility of sluggish growth in advanced economies for some time to come. Bank credit and portfolio flows may be similarly restrained by heightened risk aversion and weakened balance sheets. The implication is that LICs will need to redouble efforts to reform and modernize their own economies. Measures to improve the business environment, develop well-regulated local capital markets and banking systems, and enhance efficiency in the public sector will be crucial. Barriers to trade, notably across regional markets, should be brought down, and resources channeled to addressing the serious “infrastructure deficits” that most LICs face. These efforts will require strong financial and technical support from the international community, long after the present crisis is over.

**57. Finally, the recent crises LICs have faced—first, the food and fuel price surges, and then the global recession—have highlighted the deficiencies in most LICs’ social safety net systems.** This has meant that, even where resources were available, the mechanisms to channel support to vulnerable groups quickly and efficiently often did not exist. Concerted actions are needed to remedy this problem, so that countries are in a much better position to tackle the next crisis when it comes.

## **Appendix I. Countries Included in the Analysis**

The group of LICs analyzed in the paper is formed by the 69 PRGF-eligible countries for which data were available, which include, by region:

### **Sub-Saharan Africa:**

Angola, Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Republic of Congo, Côte d'Ivoire, Eritrea, Ethiopia, The Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, Tanzania, Togo, Uganda, and Zambia.

### **Middle East and Europe**

Armenia, Azerbaijan, Djibouti, Georgia, Kyrgyz Republic, Mauritania, Moldova, Sudan, Tajikistan, Uzbekistan, and Republic of Yemen.

### **Asia**

Afghanistan, Bangladesh, Bhutan, Cambodia, India, Lao People's Democratic Republic, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea, Sri Lanka, and Vietnam.

### **Latin America**

Bolivia, Dominica, Grenada, Guyana, Haiti, Honduras, Nicaragua, St. Lucia, and St. Vincent and the Grenadines.

## Appendix II. The Spring 2008 WEO and Current Projections

Selected Economic Indicators: Spring 2008 WEO and Current Projections  
(In percent average, unless otherwise indicated)

	WEO Spring 2008						Current Projections					
	GDP growth		Reserves (months of imports 1/)		Current Acc. Balance 2/ in percent of GDP		GDP growth		Reserves (months of imports 1/ 3/)		Current Acc. Balance 2/ in percent of GDP	
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
Afghanistan, I.S. of	8.6	8.4	3.2	3.1	0.0	-1.0	3.4	15.7	3.6	3.7	-1.6	-0.9
Angola	16.0	13.2	6.1	7.3	12.0	11.8	13.2	0.2	7.5	3.5	7.5	-3.4
Armenia	10.0	8.0	3.7	3.7	-6.8	-5.0	6.8	-15.6	4.7	6.1	-11.5	-13.7
Azerbaijan	18.6	15.6	6.3	6.9	39.5	39.2	11.6	7.5	6.4	4.0	35.5	19.6
Bangladesh	5.5	6.5	2.4	2.4	-0.5	-0.7	6.0	5.4	2.8	3.3	1.9	2.1
Benin	5.4	5.7	8.2	7.9	-6.1	-6.0	5.0	3.8	8.6	7.9	-8.2	-9.7
Bhutan	7.8	6.7	10.7	10.8	9.5	2.3	7.6	8.5	13.3	12.9	0.6	-3.1
Bolivia	4.7	5.0	9.8	10.3	12.3	8.6	6.1	2.8	15.7	15.3	12.1	1.1
Burkina Faso	4.0	6.3	5.4	4.9	-11.5	-10.7	5.0	3.5	5.6	4.7	-10.9	-10.8
Burundi	5.9	5.7	3.3	4.4	-12.0	-12.2	4.5	3.2	6.2	5.5	-14.2	-10.9
Cambodia	7.2	7.0	2.3	2.2	-5.4	-6.2	6.7	-2.7	4.4	3.9	-11.1	-5.5
Cameroon	4.5	4.6	5.7	6.5	0.0	-0.4	2.9	1.6	5.8	3.7	-1.0	-7.2
Cape Verde	7.7	7.4	3.4	3.5	-11.6	-12.8	5.9	3.5	2.7	2.5	-12.4	-18.5
Central African Rep.	4.9	5.0	1.6	1.7	-6.4	-6.7	2.2	2.4	3.5	2.4	-9.8	-9.5
Chad	1.8	2.5	3.8	4.4	-2.2	-4.0	-0.2	1.6	3.9	2.7	-12.2	-20.8
Comoros	1.6	3.0	7.6	7.2	-3.5	-4.3	1.0	1.0	6.0	5.6	-11.3	-8.0
Congo, Dem. Rep. of	8.8	11.6	0.4	0.5	-10.7	-24.6	6.2	2.7	0.1	0.6	-15.3	-14.6
Congo, Republic of	9.2	10.6	7.8	14.3	6.0	10.9	5.6	7.4	10.1	9.3	-1.9	-11.2
Côte d'Ivoire	2.9	5.1	2.8	2.7	0.6	-0.5	2.3	3.7	3.5	3.7	2.4	24.6
Djibouti	6.5	7.6	2.3	2.7	-22.6	-17.8	5.8	5.1	2.8	3.0	-39.2	-17.1
Dominica	3.5	3.0	3.5	3.5	-26.6	-23.9	3.2	1.1	2.7	2.1	-32.3	-32.4
Eritrea	1.2	2.0	2.1	1.7	-5.1	-5.5	1.0	0.3	2.3	2.2	0.8	-3.7
Ethiopia	8.4	7.1	1.5	1.6	-4.3	-6.1	11.6	7.5	1.2	1.4	-5.6	-5.6
Gambia, The	6.5	6.5	3.8	4.0	-12.1	-10.9	6.1	3.6	3.5	3.4	-16.7	-17.1
Georgia	9.0	9.0	1.8	1.6	-16.6	-13.2	2.1	-4.0	3.2	3.9	-22.7	-16.3
Ghana	6.9	7.5	1.7	1.5	-9.8	-7.9	7.3	4.5	2.0	1.4	-18.7	-12.7
Grenada	4.3	4.0	2.6	2.5	-25.4	-25.8	2.2	-4.0	3.7	1.9	-40.9	-28.0
Guinea	4.9	5.2	1.4	2.1	-10.9	-9.8	4.9	0.0	1.4	1.0	-12.0	-1.7
Guinea-Bissau	3.2	3.1	7.4	8.1	7.0	2.8	3.3	1.9	6.6	6.8	-3.3	-3.1
Guyana	4.6	4.5	2.3	2.1	-16.6	-15.8	3.0	2.0	3.1	3.1	-21.5	-19.1
Haiti	3.7	4.0	2.0	2.1	-1.3	-2.5	1.2	2.0	2.0	2.3	-4.3	-2.6
Honduras	4.8	4.6	2.9	3.0	-9.5	-9.0	4.0	-2.0	3.1	2.5	-14.0	-9.1
India	7.9	8.0	9.2	8.8	-3.1	-3.4	7.3	5.4	9.2	9.2	-2.2	-2.2
Kenya	2.5	3.4	3.2	3.0	-5.5	-3.8	1.7	2.5	3.1	3.2	-6.8	-8.1
Kyrgyz Republic	7.0	6.5	3.3	3.3	-8.3	-7.4	7.6	1.5	3.7	4.2	-8.2	-7.8
Lao People's Dem. Rep.	7.9	8.2	2.2	2.5	-21.7	-15.5	7.2	4.6	2.9	2.6	-16.5	-15.4
Lesotho	5.2	5.4	7.8	8.5	5.0	4.5	3.5	-1.0	6.1	5.0	-4.0	-15.1
Liberia	9.5	10.2	0.6	0.6	-42.1	-36.2	7.1	4.9	1.0	0.4	-25.9	-41.8
Madagascar	6.8	7.3	2.5	2.9	-27.4	-16.7	7.1	-0.4	3.0	2.5	-24.2	-18.7
Malawi	7.1	6.2	1.9	2.4	-2.9	-4.4	9.7	5.9	1.3	1.5	-7.8	-4.1
Maldives	4.5	4.0	1.4	2.3	-35.7	-19.2	5.8	-4.0	2.7	3.9	-51.7	-29.0
Mali	4.3	5.1	5.4	5.6	-7.5	-6.7	5.1	4.1	4.5	5.2	-8.4	-7.3
Mauritania	6.1	6.8	3.4	3.5	-8.6	-12.0	2.2	2.3	1.3	0.3	-15.7	-9.0
Moldova	7.0	8.0	3.2	3.6	-10.3	-10.6	7.2	-9.0	5.3	3.1	-17.7	-11.8
Mongolia	8.7	8.1	4.4	4.5	-17.1	-17.6	8.9	0.5	3.7	3.5	-13.1	-6.9
Mozambique	7.0	7.0	4.2	4.5	-11.3	-10.3	6.8	4.3	4.3	4.4	-11.8	-12.1
Myanmar	4.0	4.0	3.8	3.8	2.9	2.0	4.0	4.3	5.9	6.2	4.0	1.5
Nepal	4.0	4.5	4.2	3.7	0.5	0.2	4.7	4.0	7.3	8.4	3.1	4.2
Nicaragua	4.0	4.2	1.4	0.8	-24.8	-24.4	3.2	-1.0	3.1	3.0	-23.8	-15.3
Niger	4.4	4.5	3.4	3.3	-9.7	-14.0	9.5	1.0	3.8	3.1	-13.3	-21.2
Nigeria	9.1	8.3	14.8	18.7	6.5	5.7	6.0	2.9	13.8	10.1	20.4	6.9
Pakistan	6.0	6.7	3.2	3.1	-6.9	-6.1	2.0	2.0	2.3	2.5	-8.3	-5.1
Papua New Guinea	5.8	4.7	4.1	4.2	3.3	1.7	7.0	3.9	4.8	4.0	2.8	-6.7
Rwanda	6.0	5.6	4.9	4.8	-9.5	-12.7	11.2	5.3	5.3	4.0	-5.5	-6.8
São Tomé & Príncipe	6.0	6.0	6.2	6.0	-36.1	-32.9	5.8	1.5	5.6	3.0	-29.0	-11.7
Senegal	5.4	5.9	3.7	3.8	-10.3	-11.1	2.5	4.0	3.5	7.1	-12.3	-9.1
Sierra Leone	6.5	6.5	3.4	3.7	-6.4	-5.9	5.5	3.0	5.3	2.5	-9.0	-1.2
Sri Lanka	6.4	5.6	2.5	2.5	-5.7	-4.9	6.0	-2.5	2.6	3.4	-9.4	-16.0
St. Lucia	4.4	4.4	2.2	2.1	-18.5	-17.9	0.7	-1.1	2.9	1.8	-34.5	-29.5
St. Vincent & Grens.	5.0	4.9	2.2	2.0	-26.7	-23.3	0.9	4.0	2.8	1.2	-33.7	0.0
Sudan	7.6	12.7	1.5	2.9	-9.8	-5.6	6.8	4.0	1.8	4.5		-31.1
Tajikistan	4.1	7.0	0.8	1.0	-8.3	-7.1	7.9	2.0	1.1	1.7		
Tanzania	7.8	8.0	4.3	3.8	-9.7	-10.1	7.4	5.0	4.6	4.7	-9.7	-9.9
Togo	3.0	4.0	2.6	2.5	-7.9	-6.7	1.1	2.4	6.5	5.9	-6.6	-6.9
Uganda	7.1	7.0	6.4	6.1	-7.7	-9.3	9.0	7.0	5.4	4.5	-3.2	-5.5
Uzbekistan	8.0	7.5	16.1	17.6	24.6	20.8	9.0	7.0	9.9	11.2	12.8	7.2
Vietnam	7.3	7.3	2.6	2.3	-13.6	-11.9	6.2	4.6	4.0	2.5	-11.9	-9.7
Yemen, Republic of	4.1	8.1	10.8	10.5	-1.4	0.9	3.6	4.2	12.5	9.5	-4.3	-5.2
Zambia	6.3	6.3	3.0	3.5	-5.5	-3.9	5.8	4.5	3.1	3.0	-7.2	-3.9

Sources: WEO database, and Fund staff calculations.

1/ Next year imports of goods and services.

2/ Including current transfers.

3/ Excludes the Fund SDR allocation provided in August 2009.

### Appendix III. DSA Simulations

58. Staff has simulated the impact of the crisis on pre-crisis DSAs in order to assess more adequately debt vulnerabilities in LICs. In particular, DSAs issued to the Board prior to May 31 are updated using August WEO submissions. DSAs issued to the Board after June 1 are assumed to be based on macroeconomic frameworks that capture appropriately the impact of the crisis.<sup>27</sup> While the more recent DSAs typically show an increase in debt vulnerabilities, only Georgia has experienced a deterioration in its risk of debt distress.<sup>28, 29</sup>

59. The starting point for the simulations is the most recent LIC DSA undertaken under the joint Bank-Fund Debt Sustainability Framework (DSF, see Box 1).<sup>30, 31</sup> DSAs provide information on the evolution of: (i) the measures of capacity to repay (GDP, exports and government revenues); (ii) the variables used to assess the external and fiscal financing needs; and (iii) the measures of indebtedness (PV of PPG external debt and debt service).

60. Two updated “baseline” scenarios are produced under the simulations. These scenarios differ in terms of the source of the financing needs (external or fiscal) governing the evolution of the measures of indebtedness. In the first scenario (WEO fiscal scenario), the financing needs are defined as: *expenditures - government revenues - grants*. In the second scenario (WEO external scenario), the financing needs are defined as: *imports - exports - current transfers - net FDI*. An increase in financing needs compared to the initial LIC DSA is assumed to translate into additional external borrowing only if the country is running a deficit under the WEO scenario.<sup>32, 33</sup> Additional financing needs are assumed to be met

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<sup>27</sup> Countries for which DSAs were issued after June 1 include Benin, Burkina Faso, the Central African Republic, the Republic of Congo, Dominica, Georgia, Ghana, Grenada, Haiti, Lao PDR, Mozambique, Rwanda, St Lucia, and Senegal.

<sup>28</sup> For Georgia, the risk of debt distress was revised to moderate from low. The change reflects the impact of the conflict as well as the global financial crisis.

<sup>29</sup> The Central African Republic also experienced a change in its risk of debt distress (improvement from high risk to moderate) after it received debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI).

<sup>30</sup> See “The Debt Sustainability Framework for Low-Income Countries”, Occasional Paper 266, IMF, 2008.

<sup>31</sup> This includes all countries included in Appendix I, except Azerbaijan, India, Maldives, Pakistan, and Uzbekistan, for which LIC DSAs are unavailable or were not produced because countries had significant market access.

<sup>32</sup> This rule prevents borrowing by countries running surpluses in the LIC DSA and smaller surpluses in the WEO scenario. In the case where a country is running a surplus in the LIC DSA and a deficit in the WEO scenario, the country is assumed to borrow only the amount of the deficit.

<sup>33</sup> The definitions of financing needs presented here are different from the ones presented in Box 2. The definition used here reflects the limited information available in LIC DSAs. In addition, the simulations assess

(continued)

exclusively through external borrowing in order to gauge the maximum impact on the vulnerability assessment (DSF thresholds relate to external debt).<sup>34</sup>

61. Over the 2008–14 period, the WEO country forecasts are used to update the evolution of the measures of capacity to repay and the variables affecting the financing needs (external and fiscal). More specifically, the WEO growth rates are used to update the level of the relevant LIC DSA variables. This methodology broadly preserves the internal consistency of the country-specific macroeconomic forecasts.

62. Starting in 2015, the measures of capacity to repay, net FDI, net transfers and grants grow at the same rate envisaged under the initial LIC DSAs. Accordingly, transitory shocks to growth are not reversed in later years, resulting in a permanent shock to the level of variables. Over the 2015–19 period, financing needs in the WEO scenarios return smoothly to their respective LIC DSA level (in percentage of GDP). The expenditure variables (government expenditures and imports) adjust to achieve the targeted financing needs.

63. Stress tests are not directly conducted in WEO scenarios. Instead, the response of debt burden indicators to standard DSF stress tests is assumed to be similar to the initial LIC DSA.

64. Countries are deemed to be more vulnerable based on the following criteria:

- Countries initially classified as low risk of debt distress are deemed more vulnerable if they experience a breach of threshold under the stress tests or the baseline WEO scenarios.
- Countries initially classified as moderate risk of debt distress are deemed more vulnerable if they experience a breach of a threshold under the “baseline” WEO scenarios.
- Countries initially classified as high risk of debt distress are deemed more vulnerable if at least two debt burden indicators experience an average breach over the projection period of over 15 percentage points.<sup>35</sup>

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debt vulnerabilities under the most likely scenario (WEO forecasts), rather than the financing needs required under a scenario with limited adjustment (less import compression and higher foreign exchange reserves).

<sup>34</sup> Unlimited additional external financing is assumed to be available at a grant element of 45 percent. If external financing were obtained on less concessional terms, it would result in a greater deterioration of debt burden indicators. Conversely, if part of the fiscal financing needs are met with domestic borrowing, it would result in lower external debt burden indicators.

<sup>35</sup> A 15 percent increase in debt burden indicators above their thresholds is consistent with an increase in the probability of debt distress of about 10 percent.

### **Appendix III.Box 1: Debt Sustainability Framework**

The objective of the joint Fund-Bank debt sustainability framework (DSF), which was introduced in 2005, is to support low-income countries (LICs) in their efforts to achieve their development goals without creating future debt problems.

The debt sustainability analysis (DSA) under the DSF focuses on five debt burden indicators in order to assess the risk of external public debt distress, namely: (i) present value (PV) of debt-to-GDP; (ii) PV of debt-to-exports; (iii) PV of debt-to-revenues; (iv) debt service-to-revenues; and (v) debt service-to-exports.

A risk of debt distress rating is derived by reviewing the evolution of debt burden indicators compared to their indicative policy-dependant debt-burden thresholds under a baseline scenario, alternative scenarios and stress tests. Countries can be classified as: (i) low risk; (ii) moderate risk; (iii) high risk; or (iv) in debt distress.

The thresholds depend on a country's quality of policies and institutions as measured by the three-year average of the Country Policy and Institutional Assessment (CPIA) index, compiled annually by the World Bank.

Risk of Debt Distress and HIPC Status  
As of end-July 2009 1/

Country	HIPC Status	Risk rating under the LIC DSF	Indication of increased debt vulnerability
Afghanistan	Interim country	High	Yes
Burkina Faso 2/	Post-completion point country	High	
Burundi	Post-completion point country	High	
Congo, Republic of 2/	Interim country	High	
Côte d'Ivoire	Interim country	High	
Djibouti	Non-HIPC	High	
Dominica 2/	Non-HIPC	High	
Gambia, The	Post-completion point country	High	
Grenada 2/	Non-HIPC	High	
Haiti 2/	Post-completion point country	High	
Lao, PDR 2/	Non-HIPC	High	
São Tomé and Príncipe	Post-completion point country	High	
Tajikistan	Non-HIPC	High	
Yemen	Non-HIPC	High	
Angola	Non-HIPC	Moderate	
Benin 2/	Post-completion point country	Moderate	
Bhutan	Non-HIPC	Moderate	
Cambodia	Non-HIPC	Moderate	
Central African Republic 2/	Post-completion point country	Moderate	
Chad	Interim country	Moderate	
Ethiopia	Post-completion point country	Moderate	Yes
Georgia 2/ 3/	Non-HIPC	Moderate	Yes
Ghana 2/	Post-completion point country	Moderate	
Kyrgyz Republic	Pre-decision point country	Moderate	
Lesotho	Non-HIPC	Moderate	Yes
Malawi	Post-completion point country	Moderate	Yes
Mauritania	Post-completion point country	Moderate	Yes
Nepal	Non-HIPC	Moderate	Yes
Nicaragua	Post-completion point country	Moderate	Yes
Niger	Post-completion point country	Moderate	
Papua New Guinea	Non-HIPC	Moderate	
Rwanda 2/	Post-completion point country	Moderate	
St. Lucia 2/	Non-HIPC	Moderate	
Grenadines	Non-HIPC	Moderate	Yes
Sierra Leone	Post-completion point country	Moderate	Yes
Sri Lanka 2/	Non-HIPC	Moderate	
Armenia	Non-HIPC	Low	
Bangladesh	Non-HIPC	Low	Yes
Bolivia	Post-completion point country	Low	
Cameroon 2/	Post-completion point country	Low	
Cape Verde	Non-HIPC	Low	Yes
Honduras	Post-completion point country	Low	
Kenya	Non-HIPC	Low	
Madagascar	Post-completion point country	Low	
Mali	Post-completion point country	Low	Yes
Moldova	Non-HIPC	Low	Yes
Mongolia	Non-HIPC	Low	Yes
Mozambique 2/	Post-completion point country	Low	
Nigeria	Non-HIPC	Low	
Senegal 2/	Post-completion point country	Low	
Tanzania	Post-completion point country	Low	
Uganda	Post-completion point country	Low	
Vietnam	Non-HIPC	Low	
Zambia	Post-completion point country	Low	
Comoros	Pre-decision point country	In debt distress	
Congo, Democratic Republic	Interim country	In debt distress	
Guinea	Interim country	In debt distress	
Guinea-Bissau	Interim country	In debt distress	
Liberia	Interim country	In debt distress	
Sudan	Pre-decision point country	In debt distress	
Togo	Interim country	In debt distress	

Source: Fund staff calculations.

1/For all countries included in Appendix I, except Azerbaijan, India, Maldives, Pakistan and Uzbekistan, for which LIC DSAs are unavailable or were not produced because countries had significant market access. Also excludes countries that did not provide publication consent.

2/ No simulations were undertaken as a DSA was issued after June 1, 2009.

3/ In its most recent DSA, Georgia's risk of debt distress deteriorated from low to moderate, reflecting the impact of the ongoing crisis and the conflict.