### Overview

The world economy is emerging from the throes of a historically deep and synchronized recession provoked by the bursting of a global financial bubble. The consequences of the initial bubble and the crisis have been felt in virtually every economy, whether or not it participated directly in the risky behaviors that precipitated the boom-and-bust cycle. And while growth rates have picked up, the depth of the recession means that it will take years before unemployment and spare capacity are reabsorbed.

This year's Global Economic Prospects examines the consequences of the crisis for both the short- and medium-term growth prospects of developing countries. It concludes that the crisis and the regulatory reaction to the financial excesses of the preceding several years may have lasting impacts on financial markets, raising borrowing costs and lowering levels of credit and international capital flows. As a result, the rate of growth of potential output in developing countries may be reduced by between 0.2 and 0.7 percentage points annually over the next five to seven years as economies adjust to tighter financial conditions. Overall, the level of potential output in developing countries could be reduced by between 3.4 and 8 percent over the long run, compared with its pre-crisis path.

The report further finds that the very liquid conditions of the first half of the decade contributed to the expansion in credit available in developing countries and that this expansion was responsible for about 40 percent of the approximately 1.5 percentage point acceleration of the pace at which many developing-country economies could grow without generating significant inflation.

While developing countries probably cannot reverse the expected tightening in international financial conditions, there is considerable scope for reducing domestic borrowing costs, or increasing productivity and thereby regaining the higher growth path that the crisis has derailed.

### The acute phase of the crisis is over

The immediate impacts of the crisis (includ-I ing a freezing up of credit markets, a sharp reversal of capital flows, and the precipitous equity market and exchange rate declines that ensued) are largely in the past. Since March 2009, stock markets in high-income and emerging economies have recovered roughly half the value they lost, with developing economies rebounding somewhat more strongly than highincome ones. Interbank lending rates have returned to normal levels, developing-country sovereign interest rate premiums have declined from a peak of more than 800 to around 300 basis points and stock market volatility has receded (figure O.1). In addition, bond flows to high-income corporate and emerging-market sovereigns have returned to more normal levels. and most developing-country currencies have regained their pre-crisis levels against the dollar. However, bond markets and bank lending have



Figure 0.1 Financial conditions have stabilized

begun only recently to reopen themselves to private sector borrowers in developing countries, with syndicated loans to developing countries totaling only \$123 billion in 2009, compared with \$236 billion during 2008.

The real side of the global economy is also recovering, with industrial production at the global level growing at more than 12 percent annualized pace in the third quarter of 2009. The recovery, which was initially concentrated in developing countries, has become more balanced recently as the drawdown of inventories in high-income countries slows and activity catches up to underlying demand trends (figure O.2). Nevertheless, the level of output remains depressed worldwide, with industrial production still 5 percent below pre-crisis peaks in October 2009.

Trade, which initially fell sharply, is also recovering; the exports of developing countries were expanding at a 36 percent annualized pace in October, but the volume of world trade remained 2.8 percent lower than its pre-crisis level and some 10 percent below the



level consistent with its pre-crisis trend growth rate. Overall, considerable slack remains in the global economy, with unemployment continuing to rise, disinflation widespread, and commodity prices between 50 and 25 percent lower than their levels in mid-2008.

#### A subdued recovery

Overall, after falling for two to three quarters, global GDP has begun recovering; output grew rapidly during the second half of 2009 and is expected to continue to do so during the first half of 2010. However, as the positive contribution to growth from fiscal stimulus and the inventory cycle wanes, growth will slow, in part because spending by households and the banking sector will be less buoyant as they rebuild their balance sheets. As a result, global GDP growth, which is projected to come in at 2.7 percent in 2010 (after an unprecedented 2.2 percent decline in 2009), is expected to accelerate only modestly to 3.2 percent in 2011 (table O.1).

A weak recovery is also anticipated in developing countries. Arguably the inventory cycle is somewhat more advanced in East Asia and the Pacific, and there are signs that the growth impact of fiscal stimulus in China may already be waning

Region	2007	2008	2009 <sup>e</sup>	2010 <sup>f</sup>	2011 <sup>f</sup>
World	3.9	1.7	-2.2	2.7	3.2
High-income countries	2.6	0.4	-3.3	1.8	2.3
Euro Area	2.7	0.5	-3.9	1.0	1.7
Japan	2.3	-1.2	-5.4	1.3	1.8
United States	2.1	0.4	-2.5	2.5	2.7
Developing countries	8.1	5.6	1.2	5.2	5.8
East Asia and Pacific	11.4	8.0	6.8	8.1	8.2
Europe and Central Asia	7.1	4.2	-6.2	2.7	3.6
Latin America and the Caribbean	5.5	3.9	-2.6	3.1	3.6
Middle East and North Africa	5.9	4.3	2.9	3.7	4.4
South Asia	8.5	5.7	5.7	6.9	7.4
Sub-Saharan Africa	6.5	5.1	1.1	3.8	4.6
Memorandum items					
Developing countries					
excluding transition countries	8.1	5.6	2.5	5.7	6.1
excluding China and India	6.2	4.3	-2.2	3.3	4.0

#### Table 0.1 A modest recovery

(real GDP growth, percentage change from previous year)

Source: World Bank.

Note: e = estimate; f = forecast; growth rates aggregated using real GDP in 2005 constant dollars.

(industrial production and import growth in the region are already slowing). Output is estimated to have picked up in virtually every other developing region in the final quarter of 2009 and should continue to do so early in 2010, before slowing toward more sustainable rates later in the year. The pace of the recovery is expected to be most subdued in the Europe and Central Asia region, partly because the pre-crisis level of demand in the region was well above potential and partly because the financial system in the region has been more acutely affected by the crisis.

Combined, GDP growth in developing countries is projected to grow by some 5.2 percent in 2010, after a modest 1.2 percent rise in 2009 (-2.2 percent if India and China are excluded), and by a relatively weak 5.8 percent in 2011. Despite these relatively robust growth rates, the unusual depth of the recession will mean that spare capacity and unemployment will continue to plague economies in 2011 and some sectors may well still be shrinking. Overall, the output gap (the difference between actual GDP and what GDP would be if capital and labor were fully employed) in developing countries will remain elevated at about 4 percent of potential output in 2011 (figure O.3).

The depth of the recession and the relative weakness of the expected recovery suggest that



significant spare capacity, high unemployment, and weak inflationary pressures will continue to characterize both high-income and developing countries for some time. Already, the slowdown in growth is estimated to have increased poverty. Some 64 million more people around the world are expected to be living on less than \$1.25 a day by the end of 2010 than would have been the case without the crisis, and between 30,000 and 50,000 children may have died of malnutrition in 2009 in Sub-Saharan Africa because of the crisis (Friedman and Schady 2009). Moreover, the slowdown is expected to cut heavily into government revenues in poor countries. Countries eligible for soft loans and grants from the International Development Association of the World Bank may require as much as \$35 billion to \$50 billion in additional funding just to maintain 2008 program levels, never mind the resources necessary to fund additional demands brought upon by the crisis.

#### The outlook remains clouded by uncertainties and the challenge of unwinding the stimulus

Many uncertainties continue to surround the short-term outlook for developing countries. Principal among these is the extent to which private sector consumption and investment demand will respond to the pickup in activity prompted by fiscal and monetary stimulus and the inventory cycle. Should the response be weaker than expected in the baseline projection or should the stimulus be withdrawn too quickly, the recovery could stall. Although a double-dip recession in the sense of a return to negative global growth rates is unlikely, developing-country growth could come in as low as 5.1 percent in 2010 and 5.4 percent in 2011, with some countries potentially recording negative growth for one or more quarters.

A related but opposite risk is that the stimulus is not retracted quickly enough. In the case of fiscal policy, the risk is mainly one of increased indebtedness and unnecessary crowding out of private sector investment. On the monetary policy side, the risk is that the vast monetary expansion that has been undertaken begins to gain traction, potentially overinflating the global economy. This could recreate liquidity conditions similar to those that created the bubbles that precipitated the crisis, causing global imbalances to reemerge and forcing a much more abrupt tightening of policy—possibly even a second recession. Indeed, in some middle-income countries, very loose monetary conditions may already be generating asset price bubbles in local real-estate and other asset markets.

### Impact of the boom period on developing-country potential

In some ways, the crisis and recession from which the world economy is currently emerging resemble previous boom-bust cycles. Like many other major crises, the current one is characterized by a sharp reduction in economic activity following an extended period of rapid and ultimately unsustainable credit expansion, accompanied by excessive risk taking by financial institutions.

At the same time the current crisis differs from previous ones in fundamental ways. From a global perspective, this crisis is the most severe and widespread downturn since 1945. Global GDP is estimated to have contracted by 2.2 percent in 2009 (the first absolute decline in global GDP among the postwar crises). Even in 2011 demand is projected to remain 5 percent below the global economy's productive potential, which is almost twice the output gap during the next most severe recession (1982–83).

Moreover, in contrast with earlier downturns, the current crisis struck virtually every developing country hard, even though, with the important exception of many in Europe and Central Asia, most countries did not exhibit unsustainable macroeconomic imbalances (figure 0.4). Outside of Europe and Central Asia, regional inflation rates averaged about 6 percent or lower (well below the doubledigit rates in most regions during the early 1990s); most regional current account balances were near zero or strongly positive; and ratios of debt to gross national income were modest. The importance of prudent macroeconomic policies was revealed during the crisis, as the countries with the largest imbalances suffered the biggest declines in output (see chapter 3).

That the acute phase of the crisis was deeper than past ones may have important longer-term



consequences for growth, productivity, and even the structure of the world economy going forward. Because the shock is so deep and because so many countries are affected, unemployment will remain high longer, skills will deteriorate, otherwise healthy firms may go bankrupt, and the overall level of economic dislocation and associated economic costs will remain high. Just passing through the crisis may have a sustained negative impact on productivity and the future path of economic growth. In some economies, prolonged weakness in demand could provoke the disappearance of whole sectors instead of just some companies. This could be especially the case for declining sectors. Similarly, an uneven recovery with growth and economic dynamism concentrated in one region versus another could sway the path of investment, making lagging countries look weaker and possibly creating new comparative advantages in the leading regions. Global trade patterns may be irrevocably altered.

How these forces will play out and the policies that should be put in place to respond to them merit in-depth exploration. However, dealing with all of the potential consequences of the crisis for developing countries lies outside of the scope of this publication.

The approach to the medium-term consequences of the crisis described in the pages that follow is more narrowly oriented toward the consequences for developing countries of the changes in financial conditions observed over the past decade and those that can be expected in the next 5–10 years. Initially, the focus is on how the boom in global financial markets affected credit conditions, investment, and growth prospects in developing countries and on the factors that help to explain which countries benefited most from the boom. It then switches to an examination of how changes in the regulatory environment, risk aversion, and the policy environment are likely to affect financial conditions, investment, and growth in developing countries.

### Not all countries benefited fully from the liquidity boom

The liquidity boom in high-income countries during the first seven years of the 21st century created favorable financial conditions in both high-income and developing countries. Much more intensive use of a range of financial innovations, including the securitization of loans and the development of off-balance-sheet vehicles, allowed banks to off-load an important portion of their loan portfolios onto capital and money markets. Effectively, these innovations allowed unregulated securities to support a portfolio of loans much like the traditional banking sector-but without capital requirements and under a much less stringent regulatory framework. That permitted an unprecedented leveraging of equity capital, and the rapid expansion of liquidity that ensued helped to drive down interest rates, interest rate premiums, and the cost of capital in both high-income and developing countries (figure O.5).

As a result, domestic banking sectors and the quantity of domestic credit available within developing countries increased quickly. At the global level, international banking sector credits grew twice as fast as nominal GDP, and the quantity of capital flowing to low- and middle-income economies surged. Overall private sector lending increased by 5.5 percent of GDP; the ratio of international capital inflows to GDP increased by about 5 percentage points; and stock market capitalization increased by 79 percent of GDP (table O.2).



#### The ensuing investment boom boosted the supply potential of developing countries

The liquidity boom fed an investment boom in developing countries that prompted a rapid expansion in the supply potential of low- and middle-income countries but with limited impact on goods inflation in most countries. On average, investment-to-GDP ratios in developing countries increased by 5.5 percentage points, ranging from a 1.4 percentage point increase in Latin America and the Caribbean to an 8.1 percentage point rise in South Asia.

As a result, between 2000 and 2007 capital-to-output ratios in developing countries

	Change between 2000 and 2007 in:					
Region	Cost of capital	Capital inflows	Stock market capitalization	Private credit by deposit money banks	Investment	
	(basis points)	(percent of GDP)				
Developing countries Low-income countries Middle-income countries	-400	5.0	79	5.5	5.5 2.3 5.6	
East-Asia and Pacific	-134	2.0	118	-10.7	5.5	
Europe and Central Asia	-866	12.0	60	15.7	4.9	
Latin America and the Caribbean	-471	2.0	40	2.2	1.4	
Middle East and North Africa	269	2.0	36	6.2	5.0	
South Asia	-142	7.0	107	14.8	8.1	
Sub-Saharan Africa	-685	4.0	59	6.8	3.6	

Table 0.2 Regional distribution of changes in financing conditions, 2000–07

Sources: World Bank; Beck and Demirgüç-Kunt 2009.

Note: Regional values are simple averages of countries, except for investment rates, which are weighted averages.



were about 10 percentage points higher than they would have been had investment rates held stable at their 2002 levels. The increase in capital services provided by the additional capital contributed to about 40 percent of the 1.5 percentage point increase in the rate of growth of potential output (the level of output if capital and labor were fully employed) during this period (figure O.6 and table O.3). In so far as the rising share of new capital embodying the latest technology contributed to the observed increase in total factor productivity growth during this period, the actual contribution of the boom to developing-country potential was even higher.

The notable exception was in the Europe and Central Asia region. Despite experiencing the largest increase in intermediation, much of the additional resources went into consumption. As a consequence, investment-to-GDP ratios in the region increased by only 4.9 percent, less than the 5.5 percent average for all developing countries considered as a whole. And in contrast with other regions, the expansion in domestic credit fueled a consumption binge that generated significant domestic and external imbalances and ultimately unstable macroeconomic conditions.

#### Economic policies are critical to understanding cross-country differences in intermediation

Lower borrowing costs were the largest identifiable factor behind the increase in

## Table O.3Decomposition of increase inpotential output growth directly attributableto capital deepening

	Change in growth rate of potential output (2003–07 versus 1995–2003)			
Regions	Total	Due to capital deepening	Share due to capital deepening	
	(percentage points) (percer		(percent)	
Developing	1.5	0.6	40.3	
Middle-income	1.5	0.6	39.8	
Low-income	1.3	0.8	63.7	
East Asia and Pacific				
(excluding China)	0.4	-0.1	-19.8	
China	0.3	0.9	283.5	
Europe and Central Asia	3.1	0.6	18.7	
Latin America and the				
Caribbean	0.3	0.1	46.6	
Middle East and North Africa	0.8	0.5	66.7	
South Asia	1.4	1.1	78.5	
Sub-Saharan Africa	1.9	1.5	79.5	

Source: World Bank.

intermediation in developing countries between 1998 and 2008. Nevertheless, other factors remain critical in understanding the cross-country differences in the level of intermediation (and in the increases observed since the 1980s). The quality of institutions and levels of market openness are associated with 56 and 37 percent of the variaion in the average level of intermediation between developing countries in the top and bottom quartiles according to the ratio of domestic credit to GDP, respectively. In practical terms, this finding suggests that an improvement in institutional quality in Sub-Saharan Africa to roughly the level observed in Latin America could generate an increase in the stock of domestic credit to the private sector of about 12 percent of GDP and in international finance of about 2 percent of GDP.

Countries with relatively open economies, strong institutions, and supportive investment climates enjoyed the largest increases in external flows during the boom. Resource-rich countries also fared well in attracting external capital, in part because their resources provided relatively secure collateral that partially compensated for the weak quality of their institutions. Countries with good regulatory environments were also more successful in transforming increased financing into increased investment and, as a result, increased long-term supply potential. Inflows of foreign direct investment and domestic credit creation were associated with larger investment and growth effects than were equity or debt-creating inflows.

#### Medium-term implications of the bust for finance in developing countries

The short-term costs of the financial cri-I sis have been severe and discouraging. In many countries, the sharp contraction in activity wiped out several years worth of the additional GDP gains that the above-average growth of the preceding years had produced. That a crisis rooted in regulatory failure in high-income countries has had such pronounced effects on developing countries may have caused a backlash against financial and trade liberalization, particularly among the many developing countries that implemented stricter fiscal policy regimes, improved regulatory institutions, and introduced more flexible exchange rates during the 1990s and 2000s. Although these measures likely prevented the buildup of domestic vulnerabilities during the boom period, which would have made the crisis much more serious, they did not entirely insulate developing countries from its effects.

#### Tighter financial conditions are in the offing, implying reduced levels of finance

The lessons and fallout from the crisis are likely to shape financial policies and market reactions for years to come. Beyond the immediate and unprecedented global recession that it has provoked, the crisis can be expected to significantly alter the global financial land-scape over the next 5 to 10 years.

These changes may include:

• a tightening and broadening of the scope of financial market regulation;

- the introduction of rules and policies designed to isolate developing countries from excessive financial market volatility;
- increasing reliance on domestic intermediation and efforts to deepen regional financial markets;
- a generalized increase in risk aversion; and
- a step backward from some of the innovative financial instruments that were most associated with the financial crisis.

Anticipated regulatory changes in highincome countries are expected to broaden the range of financial institutions and activities that come under supervision, increase reporting criterion, reduce the scope for using derivatives and other innovative financial instruments, and pay greater attention to interbank dependencies and cross-border activities. These changes, plus increased risk aversion and the necessity for banks in high-income countries to rebuild their capital, suggest that liquidity will be more scarce and expensive in the years to come.

### Possible impacts of scarcer and more expensive finance

The extent to which international financial conditions impinge on developing-country finance goes well beyond the traditional current account financing of developing countries (see below). Indeed, in aggregate, developing countries are net lenders to high-income countries. Once cross-border flows have been netted out, developing countries invested more of their savings into high-income countries than highincome countries invested in them between 2000 and 2008.

However, for many countries with capital shortages, external savings are still a critical source of finance for investment. Excluding China and the oil exporters, the remaining developing countries are, on average, net importers of capital. Of the 53 developing countries that faced an external financing gap in 2009, most had current account deficits of 5 percent

# Table 0.4Contribution of private-sourcedebt inflows to external finance ofdeveloping countries with current accountdeficits, average 2003–07

	Number of countries with current account deficits	Current account deficit (% of GDP)	Net debt inflows from private sources (% of GDP)
All countries	53	6.3	2.2
Low income	16	5.8	0.8
Lower middle income	20	6.1	0.8
Upper middle income	17	7.1	5.3
Of which: ECA	8	8.5	8.1

Source: World Bank.

*Note:* Data on current account deficits and debt inflows are simple averages of country numbers. Excludes small island economies.

of GDP or more, with private-source net debt inflows equal to about 2.2 percent of GDP (or almost half the deficit)—0.8 percent if the countries in Europe and Central Asia are excluded from the mix (table O.4). For these countries a significant withdrawal of external financing could have serious consequences for domestic investment and long-term potential output. Weaker and more expensive capital at the global level also will affect financial conditions in developing countries indirectly by influencing conditions in domestic financial markets (changes in the cost of and rate of return on external investment and borrowing, increased competitive pressure, technology, and knowledge transfers).

Tighter regulations, along with the transformation of many investment banks into traditional banks, may reduce the supply of financial services, including the intermediation of developing countries' capital issuances (figure O.7). Over the past 10 years, American investment banks participated in 86 percent of the value of developing-country initial public offerings, or 32 percent of the number of deals, and the operation of mutual funds and other investment vehicles allowed individual and institutional investors in high-income countries to place money in developing markets. While developing-country competitors could pick up some of these activities and while high-income firms will almost certainly continue their involvement in this business, the likely result is that developing-country firms will have less access to capital. Moreover,



overall productivity will be affected if less active foreign investment banks have a comparative advantage in identifying firms and products with strong potential in global markets.

Tighter regulation in high-income countries and the need for parent banks to build up their capital may also impede foreign banks' participation in developing countries, which could have negative consequences for their development-especially for poorer countries with good regulatory regimes. Foreign banks can serve as a conduit for foreign savings into a developing country and can contribute to greater intermediation at lower cost by increasing competition. This can be especially important in less developed countries. However, the quality of domestic institutions is important. In the presence of weak institutions, foreign banks' participation may have no or even a net negative effect on intermediation and cost saving, if, as has happened in some regions, they cherry-pick the best clients and merely displace domestic banks.

Foreign direct investment (FDI) should be less constrained than debt flows by the rise in risk aversion and more stringent regulation. However, parent firms will face higher capital costs, and these are likely to reduce their ability to finance individual projects. As a result, FDI inflows are projected to decline from recent peaks of 3.9 percent of developingcountry GDP to around 2.8–3.0 percent of GDP. The real-side consequences of such a decline could be serious because foreign direct investment represents as much as 20 percent of total investment in Sub-Saharan Africa, Europe and Central Asia, and Latin America (figure O.8).

Of course, access to foreign capital is not an unmixed blessing, as both this crisis and past crises serve to remind us. Historically, private capital flows into developing countries, notably debt flows such as bank and bond lending, have been very volatile (figure O.9). Because such capital flows can stop, or even reverse abruptly, countries that become heavily reliant upon them can be very vulnerable. From this point of view, a less integrated global financial





system could have some benefits if it reduced developing countries' dependence on volatile capital flows.

Indeed, a central lesson from this boom-bust cycle is that although the very loose financial conditions contributed to the growth boom in developing countries, the boom was not sustainable and the crisis, loss in output, and associated social dislocation were essential and arguably inevitable consequences of the boom. If better regulation of financial flows going forward succeeds in reducing volatility and the frequency of boom-bust cycles, the benefits of more stable and sustainable conditions could outweigh the costs (see below) of more expensive and less abundant capital.

#### Countries may seek to insulate themselves from global financial markets...

Of course, the extent to which a given country experiences volatility in financial markets, as well as the consequences for the real economy, also depends on domestic policies. Despite the fact that countries with prudent and open policies tended to benefit from the boom and suffer least in the bust, the negative impacts of this crisis, which encompassed many developing countries that had managed the inflows associated with the boom period in a very prudent manner, may induce authorities in developing countries to take additional steps to reduce their economies' vulnerability to large changes in conditions outside their control.

In the past, developing countries have reacted to crises by increasing their official reserves or imposed capital controls as a means of reducing the domestic consequences of external shocks. Such self-insurance mechanisms can be expensive. By some estimates, recent reserve holdings of developing countries have cost as much as 1 percent of GDP to maintain. Nor are such reserves necessarily effective. For example during the recent crisis, there was only a limited correlation between the severity of the real-side downturn experienced by developing countries and the level of reserves they held going into the crisis period. This lack of correlation does not mean that reserves did not help cushion the shock-indeed, countries with low reserves and high current account deficits tended to be hardest hit by the crisis. However, it does suggest that beyond a point, additional reserves offer little additional protection from this kind of international shock observed and that countries should carefully weigh the additional costs associated with accumulating and maintaining even higher reserves.

Another strategy that has been followed after earlier crises has been the imposition of capital controls or a slowdown in liberalization. While such steps may reduce the risk that an economy develops a level of external indebtedness that makes it vulnerable to a rapid shift in sentiment, it does so at the expense of the longer-term benefits (such as technology transfers, increased investment, and further integration into the global economy) that might have accompanied the excluded capital inflows. In addition, controls on capital are often ineffective, particularly when they are used to support substantial exchange rate misalignment.

### ... and increase the role of domestic and regional alternatives

Faced with a less active external financing system, authorities and entrepreneurs in developing countries may take steps to promote domestic financial intermediation as an alternative to reliance on foreign capital. Given the importance that intermediation has for development, such a strategy could have significant benefits for those middle-income countries that already have a strong framework for financial intermediation, by increasing the efficiency of domestic financial intermediaries through learning by doing and economies of scale.

For low-income countries, the longer-run effects of a weaker international system may be more serious. In the short run, low-income countries may be less directly affected by the crisisinduced increase in borrowing costs—simply because their economies are not well intermediated. However, a weaker international financial system could deny them investments critical to their development, particularly because deficiencies in domestic intermediation systems are likely to prevent them from compensating for a reduced foreign presence (figure O.10).

The crisis is also likely to result in greater regional cooperation, which could strengthen financial services by capturing economies of scale and facilitating risk sharing by



pooling reserves. Such cooperation may also help strengthen South-South financial flows, which are likely to be important in sustaining FDI flows to many developing countries. However, progress in regional financial cooperation has been slow in developing countries. Further, such arrangements are likely to be of greatest benefit to regions that already have relatively robust domestic financial systems, such as East Asia and the Pacific. Poor countries with weak institutions can benefit through integration with stronger regional economies, but the promotion of regional integration with other countries with weak institutions is unlikely to be beneficial.

#### Medium-term impact on the supply potential of developing countries

I ncreased risk aversion, the necessity for banks to recapitalize, increased borrowing requirements from high-income governments, and the falling into disrepute of many of the riskmanagement strategies that contributed to boosting liquidity are all factors that are likely to increase borrowing costs in both highincome and developing countries.

The overall expansion of investment and growth during the boom period, without the creation of significant inflationary pressures or external imbalances in many developing countries, suggests that in these countries the boom relieved what may have been a binding capital constraint on growth, albeit in what proved to be a temporary and unsustainable manner. The necessary and desirable tightening of regulations will hopefully reduce the frequency of boom-bust cycles and provide a more stable financial environment for developing countries. However, higher borrowing costs are likely to mean a temporary decline in the rate of growth of developing-country potential output. Financial services are critical to the smooth functioning of an economy, and the level of domestic intermediation (for example, the ratio of domestic bank credit to GDP) is strongly correlated with economic development (figure O.11).

The extent to which anticipated changes in financial markets will increase borrowing



costs in developing countries will depend on many factors, including the level of interest rates in high-income countries. Currently, under the influence of the extraordinary steps taken by the U.S. Federal Reserve Bank and other central banks, medium (1-year) and long-term (10-year) interest rates on U.S. government securities are 0.4 and 3.8 percentage points, respectively-some 290 and 60 basis points lower than during the boom period. Similarly, developing-country risk premiums have fallen and appear to have stabilized at close to their pre-crisis levels or about 150 basis points higher than during the boom period. If real interest rates in high-income countries return to their preboom levels and if the historical relationship between these base rates and interest rate spreads remain unchanged, the borrowing costs developing countries face could rise by between 110 and 220 basis points compared with their boom-period levels.

Just as the decline in borrowing costs during the first few years of this decade was associated with a marked pickup in investment activity and potential growth rates, higher borrowing costs going forward will tend to reduce investment rates and result in lower levels of potential output than would have been observed otherwise. Firms can be expected to react to higher capital costs by employing less capital and more labor and natural resources per unit of output, so economy-wide capital-to-output and investment-to-GDP ratios will decline. During the transition period to the new, lower capital-output ratio, the rate of growth of potential output could slow by between 0.2 and 0.7 percentage points from the average of 6.2 percent rate observed during the 2003-07 period (figure O.12). Over the long run, unless offset by other factors (notably improved domestic policies, see below), this substitution away from capitalintensive techniques could reduce the supply potential in developing countries by between 3 and 5 percent and potentially by as much as 8 percent.



#### Developing countries can mitigate the effects of weaker international conditions

Although there is little that developing countries can do to prevent a deterioration in global financial conditions, they should not stand by passively. Much can be done to mitigate the costs of a tightening of global financial conditions by reducing the domestic cost of intermediation through strengthening regional and domestic institutions or by improving longterm productivity growth.

Inefficiency of domestic financial sectors resulting from corruption, weak regulatory institutions, poor protection of property rights, and excessive limits on competition can make borrowing costs in developing countries 1,000 basis points higher than in high-income countries (even more so if the even higher costs imposed by informal lenders are taken into account).

Improvements in the policies and institutions governing the financial sector can thus have a significant impact in boosting domestic financial intermediation, one that can outweigh any potential negative impact of higher global risk premiums. Simulations suggest that if developing countries continue to improve policies and other fundamentals, so that their interest spreads fall by an average of 25 basis points a year, they would more than offset the long-term effects of the financial crisis producing a 13 percent increase in long-term potential output and increases in potential output growth of about 0.3 percent per year by 2020.

Efforts to increase domestic financial intermediation should focus on strengthening institutions, not on discriminating against foreign capital. Especially in countries with poor regulations or weak enforcement capacities, discouraging foreign capital could have the detrimental effect of forcing firms to rely on more expensive domestic sources of finance and potentially reducing the overall level of intermediation. Suppressing foreign capital also could reduce firms' access to new technology, expertise, and international market contacts.

#### Conclusion

The international financial conditions of the boom period were unsustainable and resulted in the extremely disruptive and costly crisis from which the global economy is only now emerging. At the same time they demonstrated that, when exposed lower capital costs, developing countries were capable of sustaining significantly higher growth rates without generating higher inflation.

Over the medium term, international capital costs are going to be higher than they were during the boom period. As a result, developing-country growth potential will remain well below recent highs, which is likely to be a source of frustration for many countries. While some prudent reforms to reduce the sensitivity of domestic economies to some of the more volatile forms of international capital may be advisable, policy makers need to remain mindful of the benefits that financial openness and improved intermediation can bring.

Looking forward, it is not desirable to recreate the unstable and unsustainable international conditions of the boom period. However, the domestic savings in developing countries represent an enormous growth potential that is waiting to be released through reforms aimed at reinforcing and growing domestic intermediation. Although such reforms will take time to bear fruit over the longer term they may once again place developing countries on the higher growth path that the crisis has derailed.

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