

The Vulnerability of Growth Markets to a European Shock

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Introduction

In this edition of *Monthly Insights* we assess the vulnerability of Growth Markets to a potential shock from Europe. To do this, we explore two main transmission channels—trade and financial links—together with policy options. First, to assess vulnerability via the trade channel, we look at Growth Markets' export shares going to Europe and the US. Second, we consider capital flow pressures as well as the strength of local banking systems. We contrast the current situation with Growth Markets' experiences during the 2008-09 global financial crisis.

To further gauge the capacity of policymakers in Growth Markets to fend off potential shocks we analyse the availability of monetary and fiscal policy tools today. Differing policy approaches and actual experience after the 2008-09 crisis have resulted in some divergence in the cyclical positioning of Growth Markets. This means some countries face a different environment both relative to each other and relative to the past. All Growth Markets, however, possess greater capacity to deal with a sharp downturn than the developed world.

Our analysis of transmission channels and policy tools offers a varied picture. Based on the above transmission and policy criteria, we tentatively split Growth Markets into three broad groups focusing on the consequences for their GDP growth (rather than their asset markets).

1. The least vulnerable: Indonesia and Brazil. These countries appear to be relatively resilient to shock transmission and have policy tools in place to limit the impact of shocks.

2. Moderately vulnerable: Russia, China, Mexico and Korea. These countries look more vulnerable to shock transmission but have adequate policy tools in place to limit the impact of shocks.

3. The most vulnerable: Turkey and India. These countries look vulnerable to shock transmission and have limited policy tools to mitigate an external shock.

Our assessment offers insights into investment opportunities across Growth Markets in the context of the current uncertainty. In public equity markets all Growth Markets, except Indonesia, look cheap relative to their individual historical average. While Indonesia comes out as the least vulnerable on our assessment, its equity market is not the most attractive given its high valuation. Russia, on the other hand, offers some value, despite its greater vulnerability to a European shock. China also seems quite undervalued and, in our view, is the most intriguing, given its capacity to cushion external shocks and its improving growth/inflation mix. In fixed income, Brazilian local currency sovereign bonds offer the best value, in our view.

European Uncertainty Takes Centre Stage

Since the start of this year, growth expectations across the world have been downgraded significantly. The deterioration in the consensus growth outlook across Growth Markets has reflected a combination of three concerns: (1) domestic pressures from tight monetary policy to combat high levels of inflation in the Growth and EM world; (2) fears of slowing growth in the developed world, especially the US; and (3) risks surrounding the sovereign debt crisis in Europe. These worries have translated into a highly volatile market environment.

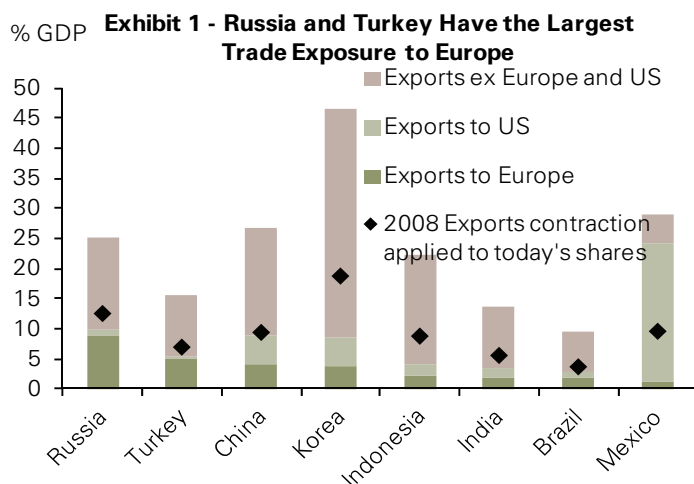
Of the three global issues, two have become less precarious in recent weeks. But the uncertainty about the direction of the European sovereign crisis continues to dominate. While we remain reasonably optimistic about the outlook for Growth Markets, this is conditional on the course that Europe takes. As we noted in our October *Monthly Insights*¹, if Europe continues to “muddle through”, there are a variety of policy options that should enable Growth Markets to successfully steer their economies through the ongoing global slowdown. However, a messy unravelling of the European crisis, with Italy as the main player, will not leave anyone immune. Understanding the possible transmission channels and policy options available in each Growth Market is crucial for assessing their policymakers’ ability to limit the crisis transmission and identifying places of vulnerability and resilience.

Transmission Channels

There are two main channels that could transmit any potential turmoil from Europe to other countries: trade and financial links. The two channels are also interconnected and have the ability to reinforce each other. All Growth Market economies are exposed to international trade and the interconnected financial web, but the degree of exposure varies.

Trade Channel

The most salient trade link is via exports from Growth Markets to Europe as well as the rest of the developed world, particularly the US.² As *Exhibit 1* shows, Russia is most exposed to a drop in European demand, which is not unexpected given its heavy skew towards commodities and its geographical position. Turkey is, unsurprisingly, the second highest on this metric but its exposure to the US is very low. China and Korea also stand out on their shares of exports going to Europe and the US combined—nearly 9% of GDP in each case. While Mexico has the lowest



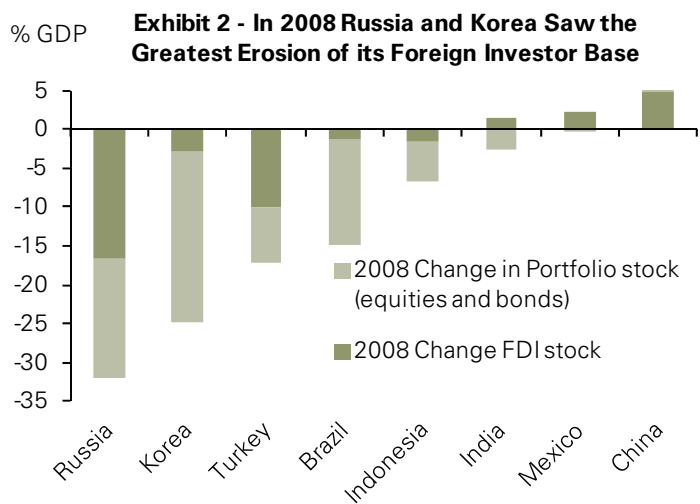
exposure to Europe, it appears very vulnerable to a slowdown in US demand, with exports to this destination accounting for nearly a quarter of its GDP. Overall, export markets in Indonesia, India and Brazil seem the best positioned, although the export composition also plays a role, with commodity exporters like Brazil being more vulnerable during the downturn.

Looking at the 2008-2009 experience, we find that Russia and Turkey saw the biggest contraction in exports (total, rather than net, to all countries) from peak (August 2008) to trough in volume terms. If a similar contraction in exports were to occur today (*Exhibit 1*), Korea would stand out as the most vulnerable as its current share of exports in GDP has actually risen substantially, by 10 ppt since 2007. Although Russia’s share has fallen somewhat, it remains high, making the country susceptible to trade shocks. Among the countries that have managed to reduce the importance of trade in their GDP growth since the crisis, China stands out (its 2010 share of total export in GDP is 8 ppt lower than in 2007). Indonesia is another notable example in this regard.

So far in 2011 trade data has showed some signs of softening, but on the whole remained relatively robust. Korean export growth, one of the main leading indicators for the global industrial cycle, has slowed since September, but remains in a firmly positive territory. Interestingly, there has been a notable divergence between Korean exports to the developed world (Europe and the US in particular) and exports to Growth and Emerging Markets. So while the European crisis has been slowly feeding in through the trade channel, especially in the more open economies like Korea, the impact has been offset, mostly by China.

¹ “Europe: Close to the Edge”, *Monthly Insights*, October 2011.

² We include the US in our analysis as a significant deterioration in the European situation is likely to have a meaningful impact on the US economy via trade and financial channels.

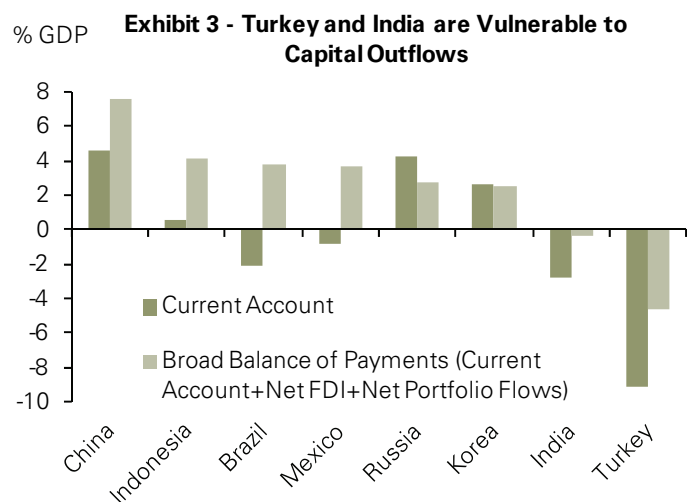


Source: national sources, Haver Analytics, GSAM calculations

Financial Channels

In today's closely integrated global financial system, **capital flows** are an important mechanism that can transmit financial shocks very fast. As we discussed in the April edition of this publication³, net foreign direct investment (FDI) and private portfolio flows into Growth Markets have been firmly positive this past decade. By their nature, FDI flows tend to be much stickier than portfolio flows, which can be vulnerable to quick capital reversals driven by risk on/off sentiment. A sudden liquidation of these positions can put funding stresses on domestic companies as well as sharp pressures on currencies.

As *Exhibit 2* shows, FDI flows were indeed much more resistant to the global financial shock than private portfolio flows which were repatriated aggressively from Growth Markets in Q4 2008. Russia, Korea, Turkey and Brazil



Source: Haver Analytics, GSAM calculations

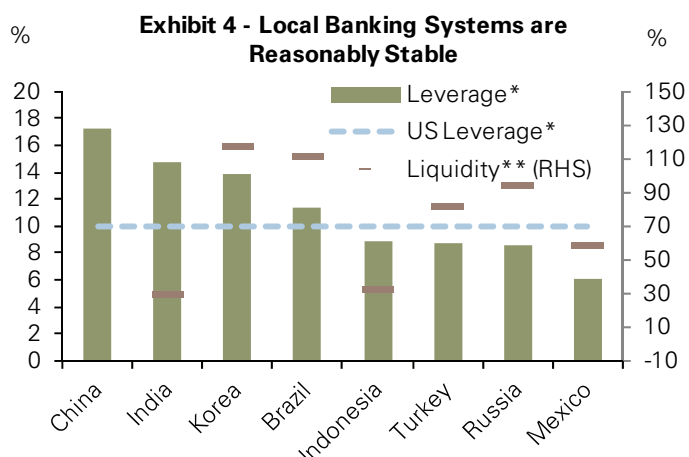
exhibited the greatest erosions of their foreign investment base, while China remained the most robust.

We look at fund flow data from EPFR Global to gauge flows year to date. While EM fixed income has seen outflows in the last couple of months, cumulative flows for the year are still firmly positive. There have been more significant outflows in EM equities throughout the year, but not on the scale of 2008, and recent weeks have shown some tentative signs of reversals.

Pressure on capital accounts can have negative consequences for currencies, especially if the outflows are not offset by a current account surplus. The current account balances and broad balance of payments (BBoP)⁴ shown in *Exhibit 3* help gauge the countries' vulnerability to a reversal in capital flows. Turkey and India stand out—their significant BBoP deficits have already been putting downward pressure on their currencies even without significant capital outflows.⁵

The drying up or reversal of foreign investment flows also has ramifications for foreign exchange funding of the **local banking system**. So far Growth Markets' local banks remain in a good place to weather a reasonable storm. As *Exhibit 4* shows, apart from Indonesia and India, Growth Markets' banks have relatively high ratios of liquid assets to short-term liabilities, with Brazil and Korea comfortably over 100%. In terms of their asset to equity ratios, half of Growth Markets are less levered than the US. Although China is the most levered, it has one of the best deposit bases relative to its peers.

Another financial transmission channel to consider is the extent of **European and US bank involvement** in Growth Markets. While Growth Market banks have very

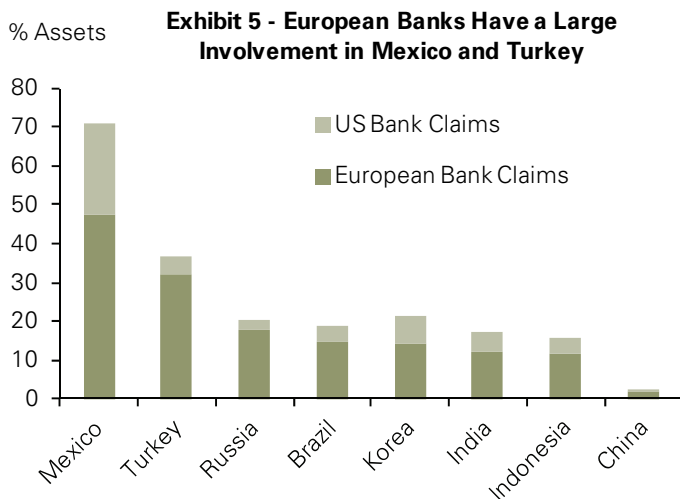


* Assets/Equity Ratio. ** Liquid Assets/Short-Term Liabilities Ratio. Note: liquidity data for China is not available. Source: Bloomberg, IMF, Haver Analytics and GSAM calculations

³ "Capital Flows in a Growth Market World", *Monthly Insights*, April 2011.

⁴ Calculated as the sum of current account, net FDI and net portfolio flows.

⁵ Foreign currency reserves should play a significant role in mitigating these pressures as discussed in the next section.



Source: BIS, IMF, Haver Analytics and GSAM calculations

few, if any, assets in Europe or the US, European and US banks themselves do have significant claims on banking assets in Growth Markets, as *Exhibit 5* shows. For the most part, this picks up activities of subsidiaries of large European banks in these countries. While the majority of these assets should be funded locally and hence are reasonably robust, a repatriation of some of this liquidity would seem inevitable in the event that European banks face large losses at home. Mexico looks particularly vulnerable on this metric, with nearly 70% of its banking assets laid claim to by European and US domiciled banks. Turkey and Russia also have high exposures to Europe which is not surprising, given their geographical proximity. China is best positioned on this measure.

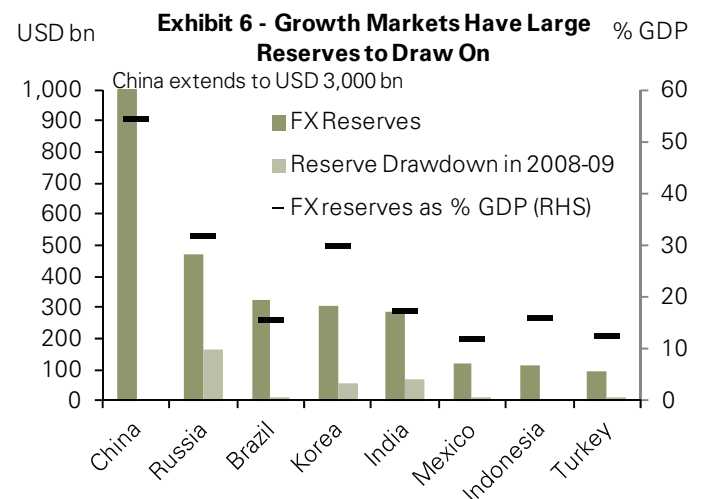
Room for Policy Manoeuvre But Constrained Options in Places

Growth Markets can mitigate their exposure to the developed world's challenges by using policy tools. Of course, the ability to use policy tools depends on the domestic environment, particularly on the growth/inflation trade-off. Differing policy approaches post-crisis have resulted in some divergence in the cyclical positioning of Growth Markets today. This means some countries face more restrictions both relative to each other and relative to 2008-2009.

Monetary Policy

Monetary policy can limit crisis transmission through both the trade and financial channels. Having gone through the 2008 crisis, most central banks in the Growth and EM world are now more experienced and better positioned to deal with external uncertainty in a proactive manner.

Foreign exchange reserves can provide a cushion in times of financial stress. With these reserves monetary authorities have the capacity to defend their currencies from capital flight as well as the ability to ease any foreign



Source: IMF, National Sources, Haver Analytics and GSAM calculations

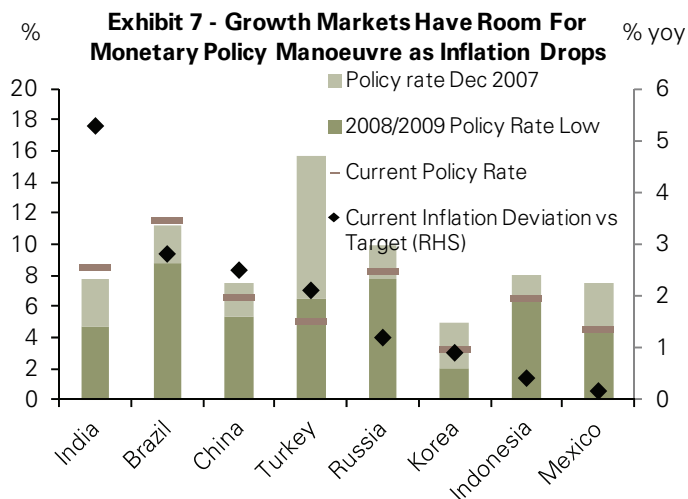
currency funding difficulties in their banking systems. Therefore, countries with larger stocks of currency reserves relative to their GDP should be better positioned to shelter themselves from capital account stresses.

In terms of absolute levels, China, unsurprisingly, is best positioned, with its "war chest" of over \$3 trillion, as *Exhibit 6* shows. Russia and Brazil also come out strong, although well below China. Turkey seems most vulnerable, with reserves around \$87 bn as of August. It has already spent almost \$5 bn since the start of the summer, trying to curb excessive depreciation pressure on its currency, which between June and early October fell by almost 20% against the USD.

The current level of **policy rates** gives some central banks room to ease financial conditions to cushion the impact of external uncertainty on real activity. Easing inflation in Brazil and Indonesia has already allowed both to undertake pre-emptive cuts in recent months. Slowly dissipating inflationary pressures have allowed the central banks in China and Korea to stop their tightening cycle—they now remain in "wait and see" mode, gauging the impact of potential fallout from the Eurozone on their domestic economies. Mexico's low inflation relative to its target arguably puts it in the best position to combat a global downturn via rate cuts.

However, while Growth Markets are not facing the near-zero bound constraint prevalent in the developed world, their policy rates today are generally below the pre-2008 crisis level, as *Exhibit 7* shows. Importantly, with inflation in all countries above the target, particularly in India, some central banks had to adopt a tight monetary stance recently, despite the continuing cyclical slowdown and uncertain external environment.

In addition to conventional policy tools, a number of "backdoor" measures widely used by Growth Markets central banks can sometimes be a more timely and



Source: Bloomberg, Haver Analytics and GSAM calculations

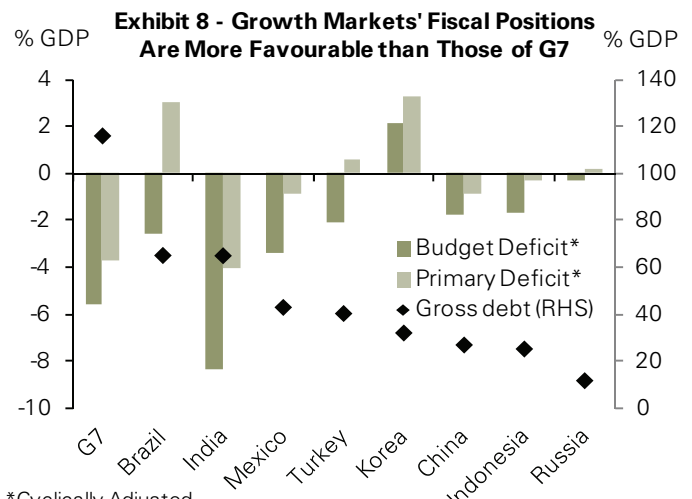
effective tool to affect financial conditions. China is one of the most frequent users of such measures, which include lending quotas, and various measures to regulate investment and liquidity. Capital controls are another tool that could play an important role in limiting the transmission of financial shocks. To encourage capital flows, countries could remove restrictions on inflows imposed last year. Brazil, for instance, could revise the financial transactions tax (IOF) on foreign fixed income investments, should capital inflows evaporate and its currency weaken sharply.

Fiscal Policy

Fiscal policy played a crucial role in combating the fallout from the 2008 financial crisis. In 2009-2010 Growth Markets spent between 1% (India) and 7.3% (Russia) of their respective GDP on fiscal stimulus to combat unemployment and to support key sectors and private consumption.⁶

As *Exhibit 8* shows, most Growth Markets have debt-to-GDP ratios below 60% (except for Brazil and India which are not that far off), and cyclically-adjusted fiscal deficits below 3% of GDP (except India and Mexico). This compares favourably to the much higher debts and deficits in the G7. On this basis, all Growth Markets, except India, could potentially satisfy the Maastricht convergence criteria set for the Eurozone member countries. While Growth Markets today are on average more constrained in terms of fiscal policy options, they still have room for manoeuvre, unlike much of the developed world.

China's capacity for fiscal stimulus today is probably most controversial. While China's general government debt-to-



*Cyclically Adjusted

Source: IMF, Haver Analytics and GSAM calculations

GDP ratio has risen by around 10 ppt since 2008, in 2011 it remains at a sustainable 27%, according to the IMF. However, the explosion in off-balance sheet lending and local government financing vehicles has substantially raised leverage in the economy, pushing its total credit/GDP ratio to over 180%, up by 35 ppt since 2008.⁷ This, in combination with the inflation overshoot from its last monetary stimulus, means that Chinese policymakers are likely to be more cautious in their future responses.

Putting Transmission Channels and Policy Tools Together

The analysis of transmission channels and policy tools clearly offers a varied picture. To make our assessment easier, we split Growth Markets into three groups based on their potential to transmit shocks and their policy tools available to combat these shocks.

1. The least vulnerable: Indonesia and Brazil. These countries appear to be relatively resilient to shock transmission and have policy tools in place to limit the impact of shocks.

2. Moderate vulnerability: Russia, China, Mexico and Korea. These countries look more vulnerable to shock transmission but have adequate policy tools in place to limit the impact of shocks.

3. The most vulnerable: Turkey and India. These countries look vulnerable to shock transmission and have limited policy tools to mitigate an external shock.

Of course, these groups are quite arbitrary and do not represent an entirely holistic assessment. Nevertheless, they provide a useful framework for thinking about investment opportunities in the Growth Market world.

⁶ "Navigating the Fiscal Challenges Ahead", *Fiscal Monitor*, World Economic and Financial Surveys, IMF, 14 May 2010.

⁷ "Asia: Greater impact of Eurozone and US downgrade amid China credit concerns", *Asia Economics Analyst* 11/17, 4 October 2011, GS Economics, Commodities and Strategy Research.

Investment Implications

Our vulnerability assessment combined with asset valuation metrics can offer insights into investment opportunities across Growth Markets in the context of the current uncertainty. Using cyclically-adjusted PE ratios (CAPE)⁸, we gauge the relative attractiveness of **public equity markets**. As *Exhibit 9* illustrates, today all Growth Markets except Indonesia look cheap relative to their individual historical average. So while Indonesia comes out as one of the most resilient countries in terms of transmission channels and policy tools, its equity market is not the most attractive. Of course, this is partly a reflection of the country's sharp rebound following the 2008-09 crisis and its relatively favourable cyclical positioning today. India looks both expensive and vulnerable.

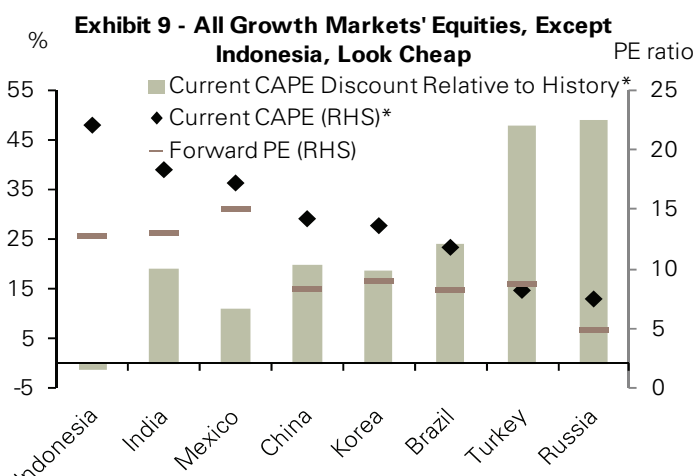
Russia and Turkey, on the other hand, look cheap relative to their history. The two countries, however, differ quite significantly on our vulnerability assessment, making Russia much more attractive than Turkey. Brazil also looks interesting, being the third cheapest country on the CAPE metric and one of the more equipped to fend off external shocks. China also seems quite undervalued and, in our view, is the most intriguing, given its capacity to cushion external shocks and its improving growth/inflation mix.

One caveat is worth noting. In addition to economic vulnerability and valuation, the sector composition of equity markets also matters for performance. Looking back at 2008-09, while Brazil's fall in real GDP was much less than that of the majority of Growth Markets, its equity markets registered the second worst performance next to Russia. This is partly explained by a large sector bias towards commodities, a highly cyclical sector, in both countries. Turkey and Mexico, on the other hand, saw two

of the largest GDP contractions in 2009, but their equity markets performed significantly better, partly due to their defensive sector biases.

In **fixed income**, we use a simple measure of the risk premium imbedded in local currency sovereign bonds.⁹ On this metric, Brazilian bonds appear attractive, with the highest risk premium across the board and the relatively low vulnerability of the economy to external shocks. Indonesian bonds, just like Indonesian equities, do not offer much value. Korea and Turkey have a negative risk premium, suggesting that holding local currency bonds in these markets is unattractive.

Following recent events, Growth Market assets have experienced a temporary period of elevated volatility which has brought back memories of the past behaviour of those asset classes. As we have shown extensively, we believe that these are the periods that investors should think forward and not back. We believe that it makes sense to seek more—not less—exposure to these countries from a strategic perspective, through a combination of several asset classes. With the structural consumer demand story in place, we continue to expect Growth Markets to remain the main source of growth this decade.



* Based on Cyclically-Adjusted Price to Earnings ratios (CAPE)
Source: IBES, Datastream and GSAM calculations

⁸ The cyclically-adjusted PE ratio adjusts for inflation and the cyclicity of earnings over time.

⁹ We calculate the risk premium as real rates adjusted for country specific risk.

Appendix

GDP Growth Forecasts: Consensus vs GS Global ECS

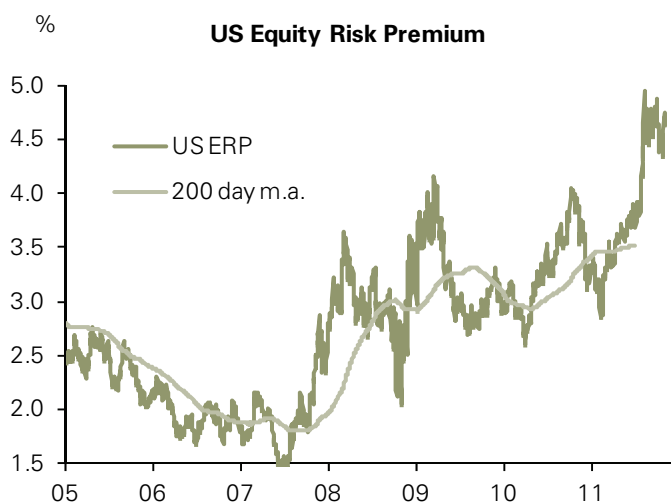
%yoy	2010	2011 (f)		2012 (f)	
	Actual	Consensus*	GS Global ECS**	Consensus*	GS Global ECS**
USA	3.0	1.7	1.8	1.9	1.6
Japan	4.0	-0.5	-0.6	2.2	2.2
Euroland	1.7	1.6	1.6	0.6	0.1
UK	1.4	1.0	1.0	1.5	1.3
Brazil	7.5	3.6	3.3	3.9	3.0
China	10.4	9.1	9.1	8.5	8.6
India	8.4	7.5	7.0	8.4	7.4
Russia	4.0	4.2	4.2	4.0	3.5
BRICs	8.9	7.6	7.4	7.4	7.2
Advanced Economies	3.0	1.7	1.6	1.8	1.4
World	5.1	3.8	3.8	3.8	3.5

* Consensus Economics Oct-11. ** Goldman Sachs Global Economics, Commodities and Strategy Research

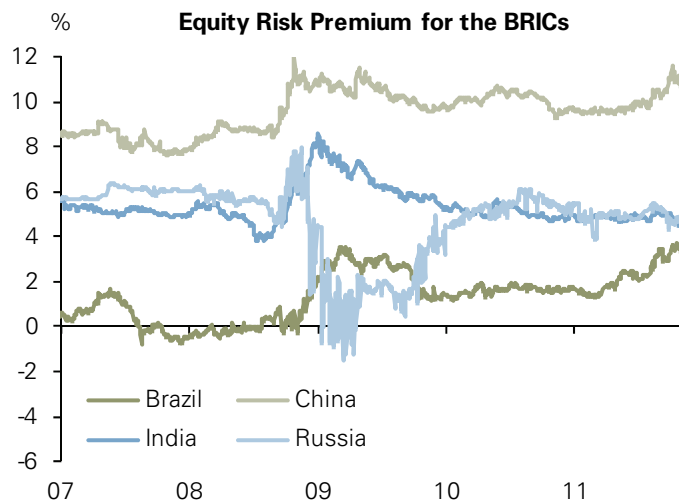
Global Equity Risk Premium*

	Real GDP Growth Trend	Real Earnings Growth	+ Dividend Yield	= Expected Real Return	- Real Bond Yield	= Implied ERP	Expected Inflation	Expected Nominal Return
US	2.5	2.5	2.1	4.6	-0.1	4.6	2.0	6.6
UK	2.3	2.3	3.4	5.6	-1.0	6.6	2.0	7.6
Europe ex UK	2.0	2.0	3.8	5.8	1.0	4.8	2.0	7.8
Japan	1.5	1.5	2.5	4.0	1.1	2.8	0.5	4.5
Brazil	5.0	5.0	4.3	9.3	5.6	3.6	4.5	13.8
China	8.0	8.0	3.4	11.4	0.7	10.7	3.0	14.4
India	8.0	8.0	1.3	9.3	5.0	4.3	4.0	13.3
Russia	5.0	5.0	2.5	7.5	2.3	5.2	6.0	13.5
GDP-weighted								
Advanced	2.2	2.2	2.8	5.0	0.4	4.5	1.8	6.7
BRICs	7.0	7.0	3.2	10.2	2.4	7.7	3.8	14.0
World	3.4	3.4	2.9	6.3	0.9	5.3	2.3	8.6
PPP-weighted								
Advanced	2.2	2.2	2.8	5.0	0.4	4.6	1.8	6.8
BRICs	7.3	7.3	2.9	10.3	2.4	7.9	3.7	14.0
World	4.1	4.1	2.9	7.0	1.2	5.8	2.5	9.5

* As of 09 November 2011. Source: GSAM calculations



Source: GSAM calculations



Source: GSAM calculations

Past performance is not indicative of future results, which may vary.

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