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India Economics Sub-Prime, Risk Aversion and India

Favorable global risk appetite trend an important

element of India's growth story: In the last 3-4 years, India's growth acceleration trend has benefited more from the globalization of capital markets than the globalization of trade. We believe that a favourable sustained global risk appetite trend has been at the heart of India's current growth acceleration cycle whereby average GDP growth accelerated to 9.2% during the last two financial years (F2006 & F2007) from an average of 6.1% in F2003 and F2004.

Market participants underestimating global

linkages: We believe that market participants arguing for serious decoupling for India's growth do not fully appreciate that India is excessively reliant on external sources of risk capital and that these suppliers of risk capital tend to be indiscriminate in their behavior in times of turbulence. While less than some of the emerging markets, India will also suffer slower external demand support in the event that current global financial markets problems weigh on global growth.

Sub-prime problem is threatening to paralyze the

fountain of risk capital: Our current growth forecasts assume a soft-landing in India's growth cycle largely caused by the central bank's tightening policy. Sustained risk aversion in global capital markets could reduce the access to external sources of risk capital and result in a further rise in the cost of capital in the domestic market, causing deceleration in growth below our conservative estimates.

For important disclosures, refer to the Disclosure Section.

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Sub-Prime, Risk Aversion and India

Summary

In the last 3-4 years, India's growth acceleration trend has benefited more from the globalization of capital markets than from the globalization of trade. The inflexion point for the current growth cycle was April 2003, which signaled the beginning of the synchronous rise in emerging market equities. We believe that a favourable sustained global risk appetite trend has been at the heart of India's current growth acceleration cycle: Average GDP growth accelerated to 9.2% during F2006 and F2007 from an average of 6.1% in F2003 and F2004. If the current global risk aversion trend continues for more than three months, we believe India could face a significant deceleration in growth.

Appreciating the Global Link to India's Growth Story

A positive global risk appetite environment and consequent rise in capital inflows into EMs has been a key pillar of stronger growth in India. The risk-appetite growth linkage is as follows: rise in risk appetite—rise in non-FDI capital inflows—lower real rates—strong credit driven growth. Indeed, India has increased its outstanding bank credit stock to US\$480 billion from US\$162 billion in April 2003. However, the trigger for reversal just like the rise of this growth cycle - will be the global risk appetite trend and not domestic fundamentals per se.

We believe that market participants arguing for serious decoupling of India's growth do not fully appreciate that India is excessively reliant on external sources of risk capital and that these suppliers of risk capital tend to be indiscriminate in their behavior at times of turbulence. Unfortunately, the sub-prime problem is threatening to paralyze risk capital, which was supporting risky assets. In addition, to direct linkages through global capital markets, we believe that any sustained risk aversion in financial market conditions to global growth will weigh on external demand adding to the overall growth concerns in India.

Repeat of 1993-96 Cycle?

The current domestic and global macro conditions remind us of the 1993-1996 cycle. Like the early 1990s cycle, unusually low global interest rates and large capital inflows into India (and emerging markets in general) have allowed an expansionary monetary policy. In the current cycle, the capital inflows have been even larger, resulting in a much higher growth push. During the 1990s cycle, the capex cycle recovered sharply from lows with the support of positive sentiment for emerging markets. However, it was soon constrained by tightening monetary policy triggered by signs of overheating. A simultaneous reversal in risk appetite for emerging markets and reduced capital inflows caused further tightening in interest rates and affected the corporate sector's ability to raise risk capital, unveiling a significant deceleration in GDP growth.

We believe that, in the current cycle too, the direction of the global financial markets will be critical to the growth outlook. Indeed, in this cycle India has witnessed both leveraged consumption as well capex cycle. Our base-case forecast assumes a soft-landing in consumption and the capex cycle. Domestic overheating problems like those during 1993-96 have already forced the central bank to lift borrowing rates by around 400-450 bps from the bottom to the current eight-year high levels. However, if the recent sell-off of risky assets were to represent the beginning of a reversal in global risk-appetite for trade it could reduce the access to external sources of risk capital and result in a further rise in the cost of capital in the domestic market, causing deceleration in GDP growth below our conservative estimates.

Why India May Be More Exposed Than Rest of Asia?

We believe that, in the event of a sharp risk aversion in the global financial markets and/or a global hard landing, India's growth cycle is far more vulnerable than the rest of Asia. To assess exposure, we compare India's macro balance sheet with Asia Ex-Japan (ROAXJ) economies on the following parameters:

Inflationary pressures: A high level of aggregate demand growth in India's case is already reflected in inflationary pressure. While the headline inflation rate already corrected to 4.4% as of July 2007 (average) (below the RBI's comfort level of 5%), inflation rate ex-food and energy is still at 5.2%. Both headline and the core inflation rate in India is one of the highest in the region. Sharp appreciation in the exchange rate since early March 2007 has helped to reduce the inflation pressure. Any major reversal in global risk appetite could result in depreciation of the exchange rate adding to inflation concerns.

Credit cycle: India is the only country in the region that has witnessed a strong credit growth trend in the current cycle (Exhibit 2). A sustained slowdown in capital inflows will cause a hard landing in the credit cycle. It will also increase the risk of the credit quality problem. Until recently, banks had not only been lending more to riskier segments but had also been mis-pricing the credit. At the peak of the credit cycle in 1Q06, banks were making little distinction in pricing credit risk for various types of loan assets. Almost all loans were being priced

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Exhibit 1

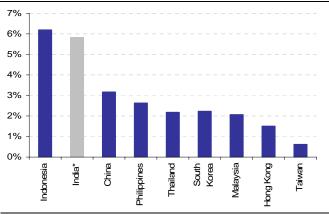
in a narrow range of around 7.5-8%, similar to the 10-year bond yields at that time. Indeed, banks' lending behavior implied that the risk of lending to a low-income-bracket borrower (for whom there is little credit history available) for the purchase of a two-wheeler was not meaningfully different from the risk of investing in government bonds. A significant part of the fresh lending of US\$318 billion over the last four years has come at a time when banks have been inadequately pricing credit risk.

Fiscal deficit: India's headline combined fiscal deficit (central plus state governments' deficit) is estimated at 7.1% of GDP for F2007. Including off-budget items such as oil subsidies and state electricity board losses totaling about 1.1% of GDP, the deficit estimate rises to 8.2% of GDP for F2007. India's deficit (excluding off-budget items) is the highest among the major emerging markets and about two to three times the levels seen in major developed economies on a percentage-of-GDP basis. Although there has been significant improvement in the fiscal deficit trend at the margin, there is little evidence that the government is implementing any major structural reforms to reduce revenue expenditure, which we believe is critical to achieve a sustainable reduction in the deficit. Most of the improvement in deficit is due to the rise in corporate tax to GDP in line with the corporate profit cycle. In our view, India is running a pro-cyclical fiscal policy. In the event of a sharp slowdown in growth due to global factors, the condition of India's public finances provides little flexibility to increase public debt aggressively and offset such global pressures.

Current account balance: The most important differentiation between India and Rest of Non-Japan Asia (ROAXJ) is that while India runs a current account deficit, ROAXJ runs a current account surplus. In India, aggregate demand being higher than supply (domestic capacity creation) is also reflected in the current account balance and inflationary pressure. This makes India more reliant on capital inflows than ROAXJ.

Composition of capital inflows: Unlike other emerging markets, India's balance of payments surplus (a key source of liquidity supply) has been driven by capital inflows. Almost 82% of the total US\$98 billion of capital flows that India has received over the past four years has been in the form of non-FDI flows. As a result, India is more exposed than other emerging countries to a potential sharp reversal in global risk appetite. Non-FDI capital inflows account for only 25% of the total in emerging countries (excluding India).

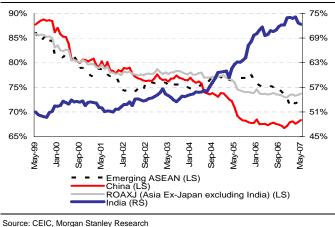
Inflation in India vs. Other Countries in Asia



Note: Data corresponds to average inflation in H12007. * For India, inflation is computed using Wholesale Price Index Source: CEIC, Morgan Stanley Research

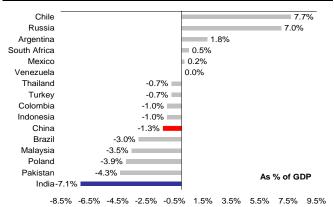
Exhibit 2

Bank Credit Deposit Ratio



Source: CEIC, Morgan Stanley

Select Emerging Markets: Budget Balance (As % of GDP, 2006)



Note: Data relate to emerging markets with nominal US\$ GDP greater than US\$100 bn and per capita income less than US\$10,000. * Pakistan data are for F2006 (YE Mar). Note India's deficit figures exclude off-budget subsidy numbers. Source: CEIC, Central Bank Websites, Morgan Stanley Research

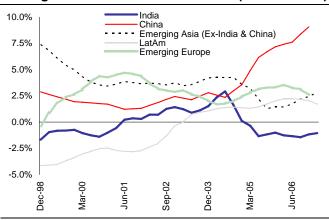
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But the Good News Is....

While we see the risk of significant deceleration in India's growth in the event of sustained risk aversion in the global financial markets, we also do not agree with the view that India's current growth cycle resembles South East Asian countries prior to the Asian crisis. We believe the levels of excesses are much lower and India's growth model has inbuilt stabilizing aspects. Some of the differentiating factors are: (a) exchange rate regime (India has a flexible exchange rate regime unlike in SE Asia prior to the Asian crisis); (b) a significant part of non-FDI inflows have been denominated equity inflows. These liabilities will get marked down in line with asset market corrections (in SE Asia there was excessive reliance on short-term debt); (c) the current account deficit in India is still under 2% of GDP vs. 5-8% in SE Asia (d) Indian corporate sector balance sheet is in reasonably good shape with the average debt equity ratio (for companies under MS coverage) at only 0.3% as of F2007 (debt-equity ratios were unusually high in SE Asia).

Exhibit 4 Trailing 4Q Current Account Balance (As % of GDP)



Note: Based on MSCI Emerging Market universe filtered by countries with nominal GDP greater than US\$100 bn. 1. Includes Korea, Taiwan, Indonesia, Thailand and Malaysia. 2. Includes Argentina, Brazil, Mexico and Venezuela. 3. Includes Russia, Turkey, South Africa, Israel, Czech Republic. Source: CEIC, Central Bank websites, Morgan Stanley Research

Exhibit 5

Composition of Capital Flows for Top 10 Emerging Markets¹

(Data for 2003-2006)	EM Basket (Ex-India)	India
Total Net FDI Flows* (US\$bn)	363	18
Total Capital Flows (US\$bn)	485	98
% Share of FDI Flows	75%	18%
% Share of Non-FDI Flows	25%	82%

 Includes Russia, Mexico, India, Turkey, Indonesia, South Africa, China, Korea, Brazil and Taiwan; * FDI inflows less outflows; Source: IMF, Central Bank Websites, CEIC, Morgan Stanley Research

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