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### **INDIA**

#### Rohini Malkani

+91-22-6631-9876 rohini.malkani@citigroup.com Mumbai

### Anushka Shah Mumbai

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# CitiViews - India Market Watch

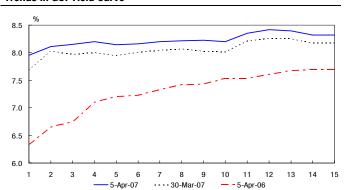
- Spotlight on Water Management in India: With "inclusive growth" becoming the new mantra of policy makers, water management is an emerging focus area for India, given that both agriculture and the provision of basic services – two basic offshoots of inclusive growth depend on it. Inaugurating the 2007 World Water Day which focused on "Coping with Water Scarcity," two interesting comments from PM Singh were that water is now fast becoming the most critical constraint for India's agricultural development and that un-cleaned dirty water is a major cause for child mortality. This issue is further compounded by concerns on climate change which India is most vulnerable to as its monsoon systems and flow of Himalayan rivers are all dependent on current climatic patterns<sup>1</sup>.
- ➤ Water: A growing critical constraint for agriculture: Though total precipitation in India, including snowfall, amounts to 4000bn cubic meter across the country, 50% of the precipitation takes place in 15 days and 90% of the rivers are filled within four months. This makes the availability and distribution of water in India uneven across both space and time. Another concern is that storage facilities are poor – Indian dams can store only 200 cubic meters per capita, as compared to over 1,000 cubic meters in China and 5,000 in the US. All of this has resulted in erratic trends in the agriculture sector. This points to emerging opportunities in irrigation, tube-wells as well as building more dams, as climate change is likely to further increase the variability of rainfall in India.
- Water Treatment An emerging opportunity: Another water-related challenge is provision of basic services which includes the quality of water. The UN estimates that 1.1bn people do not have access to an improved sources of drinking water which is a major cause of child mortality. Child mortality rates in India are still high at 65 per 1000 vs. 30 in China and 6.4 in the US. To this end, companies that have made forays in water treatment/water purification facilities in India include Thermax, Ion Exchange, HLL, Eureka Forbes and WHI<sup>2</sup>.
- ➤ Measures to curb the crisis are encouraging: To its credit, the government has recognized the urgent need to address water infrastructure and has declared 2007 as the Water Year. Further, its National Water Policy recognizes water as a 'national asset' and prioritizes water allocation; encouraging various forms of rain water harvesting. Moreover, the proposed establishment of a water authority for the Brahmaputra along the lines of the Tennessee Valley Authority would combine water infrastructure with modern management approaches to make water a stimulus for growth. One study finds that for every Rs100 of direct benefits, the construction of a dam in northern India generated Rs90 of indirect benefits for the regional economy as well. Government efforts are positive and could help solve the water crisis, provided they are implemented.

A UN Report recently released predicts that climate change will hit poorer nations first through a decline in crop yields, flooding and water shortages, and sharp changes in temperature. Water scarcity is a key aspect of climate change. Further, a World Bank study estimates that 4bn people - or one half of the world's population - will live under conditions of severe water stress in 2025, with conditions particularly severe in Africa, the Middle East, and South Asia

<sup>&</sup>lt;sup>2</sup> Water Health International will be setting up community based water treatment plants using water from ponds/reservoirs across the country. WHI also has forays into water purification systems and rainwater harvesting.

## India - Markets in Pictures

#### **Trends in GOI Yield Curve**



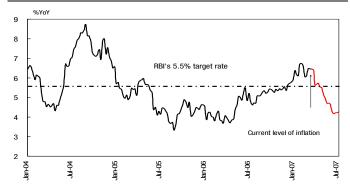
The curve shifted higher with the spread 15-year over 2-year at 21 bps from 14 bps. The benchmark 10-year yield rose to 8.2% from 8.01%, factoring in the LAF repo and CRR hikes announced by the RBI

### Trends in Exchange Rate - Rs/US\$



On the back of tight domestic liquidity conditions which resulted in dollar liquidation, the rupee continued to gain closing the week higher at Rs42.9/US\$ - an eight year high. Going forward, while near-term movements are likely to be choppy, we maintain our FY08 average of Rs43.2/US\$.

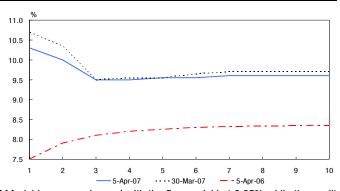
### Trends in Inflation (% YoY)



Inflation continued to remain above RBI's target range, with the WPI coming in at 6.39% for the week ended 24 Mar. While Primary Articles were up 11.4%yoy, Manufactured Products were up 6.7% and the Fuel Index was up 1%yoy. We expect inflation to come off to 5% levels by May, with the impact of recent monetary and fiscal measures kicking in.

Source: Reuters, Bloomberg

#### Trends in AAA Yield Curve



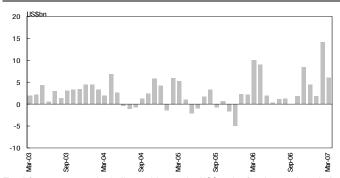
AAA yields were unchanged with the 5-year yield at 9.95% while the credit spread was around 180 bps.

### Trends in 6-Month Premiums (%)



Premium ended higher at 5.41% from 4.4%. Shortage of rupees in the spot market compelled banks to sell in spot by entering sell-buy contracts

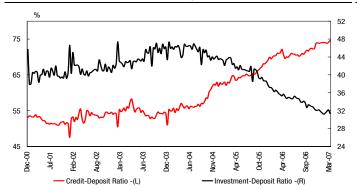
### Monthly Increase in Forex Reserves (US\$bn)



Total forex reserves, including gold, rose by US\$1.4bn for the week ended 30 Mar. Fiscal YTD, foreign currency assets have also increased by US\$46.8bn and currently stand at US\$192bn as compared to US\$145bn the previous year. Forex reserves including gold stand at US\$199bn- a record high

## India – Markets in Pictures

### **Trends in the Credit and Investment Deposit Ratios**

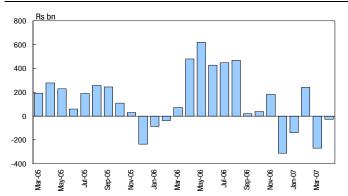


Despite robust growth in deposits, the continuation of strong trends in credit resulted in the credit-deposit ratio touching 75%. Banks continue to finance this by drawing down investment in government-securities, resulting in the The spread ended flat at 6 bps, having dipped to 4 bps intra-week investment-deposit ratio now at 32%

#### Trends in 10-Year GOI over 5-Year Spread

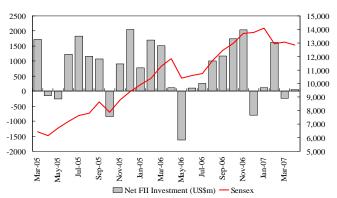


### Trends in Reverse Repos/Repos (Rs bn)



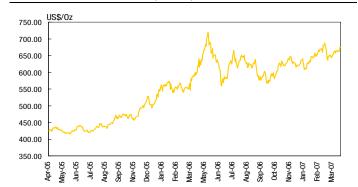
The tightness in liquidity conditions as reflected by the LAF reduced with the RBI injecting Rs26bn last week on a daily average basis as compared to the Rs200bn levels a fortnight ago. The improvement in the cash situation is largely due to government spending and dollar sales

### 2 Years - Trends in FII Flows (US\$ m)



Equities saw FII inflows to the tune of US\$43mn for the trading week ended 5th April. A quick re-cap: in FY07, flows amounted US\$5.5bn, as compared with US\$11bn in FY06.

### Trends in Commodities - Gold(US\$/0z)



Gold ended higher at US\$674.5/oz from US\$663.6 largely due to technical factors and dollar weakness.

Source: Reuters; Bloomberg; Citigroup

### Trends in Commodities - Oil (US\$/bbl)



Crude prices dropped following the release of detained British sailors by Iran which eased concern that oil supplies from the Middle East would be disrupted.

# **India- Market Monitor**

	Units	Latest	Previous	1M ago	3M ago	12M ago
Interest Rates			•			
Overnight	%	7.25	50.00	5.25	6.75	5.70
1 year Treasury Bill	%	7.83	7.83	7.73	7.19	6.42
1 year OIS	%	8.11	7.88	7.76	7.58	6.24
1 year MIFOR	%	9.80	8.89	8.16	8.44	6.78
5 year Corp AAA spread over GOI	%	1.21	1.40	1.55	1.47	0.89
10 year GOI	%	8.2	8.0	8.0	7.6	7.5
Currency & Reserves						
USD/INR		42.93	43.47	44.64	44.31	44.71
EUR/USD		1.34	1.33	1.31	1.31	1.23
USD/JPY		118.90	118.04	115.78	118.13	117.46
12 Month INR Forward Premium	%	4.56	4.04	2.86	2.91	1.56
FX Assets As On (30 Mar 07) (Excluding gold)	US\$ bn.	191.9	190.4	187.3	170.2	145.1
Money & Banking						
Credit-Deposit Ratio	%	74.5	74.0	74.0	73.9	71.2
Money Supply - M3	% YoY	22.0	22.1	21.8	19.4	16.5
Inflation - WPI (24 Mar 07)	% YoY	6.39	6.46	6.10	5.78	4.06

Source: Citigroup; RBI.

# Financial Market Forecasts

### **Currency Forecasts and Forwards**

	Spot		I Month		3 Months		6 Months		12 Months	
	Range in Feb	29-Mar	Forecast	Forward	Forecast	Forward	Forecast	Forward	Forecast	Forward
Versus USD										
Japan YEN	118.49-121.81	117.11	118.00	116.66	119.00	115.75	119.00	114.44	118.00	112.13
Euro EUR	1.2926-1.3245	1.3318	1.3200	1.3334	1.3200	1.3364	1.2900	1.3402	1.2600	1.3449
India INR	43.95-44.18	42.80	44.00	43.33	44.00	43.60	43.50	43.94	43.00	44.55
China RMB	7.7396-7.7662	7.7295	7.6900	7.6930	7.4500	7.6180	7.3000	7.4975	7.1000	7.2635

Source: Reuters, Citigroup estimates.

#### **Interest Rate Forecasts**

		Range in February	29-Mar	2007	3007	4007	1Q08
US	Fed Fund Rate	5.25 - 5.25	5.25	5.25	5.00	5.00	5.00
	10-Year Treasuries	4.51 - 4.83	4.61	4.90	4.95	4.95	5.00
EU	Repo Rate	3.5 - 3.5	3.75	3.75	4.00	4.00	4.00
	10-Year Bunds	3.95 - 4.12	4.03	3.90	3.95	3.95	3.95
JP	Call Money	0.25 - 0.705	0.57	0.50	0.50	0.75	0.75
	10-Year JGBs	1.63 - 1.75	1.66	1.80	1.90	2.00	2.00
IN	Overnight Reverse Repo Rate	6 - 6	6.00	6.25	6.25	6.25	6.25
	91-Day T Bill	7.47 - 8.10	7.98	7.50	7.50	7.50	7.50
	10-Year Gilt	7.69 - 8.08	7.98	8.00	8.00	8.00	8.00
CN	1-year lending rate	6.12 - 6.12	6.39	6.39	6.66	6.66	6.66
	7-Day Shibor	1.94 - 4.38	1.97	2.00	2.20	2.50	2.50
	Government bond yield (5 -Year)	2.68 - 2.76	2.81	2.75	2.80	2.96	3.12

 $Source: \ Datastream, \ CEIC\ Data\ Company\ Limited,\ Bloomberg,\ Reuters,\ Citigroup\ estimates$ 

Note: Quarterly forecasts are for period ends

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