Equity | 30 November 2012

India Equity Strategy

2013: +10%

Aditya Narain
Aditya.Narain@citi.com
+91 22-6631-9879

Table of Contents

- **View From Here**
  - Cyclically: tailwinds (benefits of slowdown & government action)
  - Structurally: Eco / Risk appetite headwinds have not gone away
  - Reforms: what's been announced, what's pending?
  - 10% Gain in 2013
- **Valuations Reasonable, Earnings Stabilizing**
  - Valuations: below average
  - Earnings: more U than V
- **Macro Picture**
  - Macro: benefits of a slowdown?
  - Corporates: stressed, but improving
  - The rupee: a fundamental vulnerability
  - Survey of Citi analysts' expectations
- **Portfolio Positioning: Be Aggressive**
  - Valuation premium: cyclicals vs. defensives, large- vs. small/mid-caps
  - Model Portfolio
  - Top Picks
- **Thematics**
- **Macroeconomic Summary & Forecasts**

View From Here

View – from here

- 2013 Year End Target: Sensex - 20,800 (+10%); NIFTY – 6,322
- Government actions help risk sentiment/ flows
- However underlying economy unlikely to revive in a hurry
- Macro tailwinds (interest rates, liquidity, inflation)
- And corporate risk / profitability pressures might be peaking
- There is a way to play a slowing economy and an easing macro
- Portfolio: Play for upside – rate cyclicals

Cyclically: tailwinds

- Market interest rates are falling
- Liquidity has eased
- Earnings are stabilizing
- Government seems to be waking up (administrative reforms being done, can legislative reforms be pushed through?)
- Foreign flows pouring in…..Valuations look reasonable but getting richer

Structurally: headwinds have not gone away

- Growth: The new normal – 6%?
- Government decision-making – will the current momentum sustain?
- Energy vulnerability – here to stay
- Current account deficit remains an issue
- Savings rates falling – dependence on capital flows rising
- Businesses now looking at returns, rather than growth
- Politics – fundamental challenges?
- India has structurally de-rated – where will its multiple settle?

Reforms: what's been announced, what's pending?

Announced Reforms / Pending Bills	Key Features	Parliament Approval Required?
Fuel Price Hike	Diesel price raised by Rs 5/ltr, Subsidised LPG cylinders capped at 6/household	No
FDI		
Multi-Brand Retail	51% FDI permitted subject to State approval	No
Single- Brand Retail	FDI beyond 51% requires 30% sourcing locally from MSMEs,cottage industries etc.	No
Broadcasting Services	74% FDI allowed in teleports,mobile tv and sky broadcasting services	No
Insurance	49% FDI allowed, public sector insurance cos can get listed w government stake at at least 51%	Yes
Pension	49% FDI, has one term 'return scheme' action,gives statutory power to regulatory authority	Yes
Power Exchanges	49% FDI allowed	No
Civil Aviation	49% FDI in scheduled and non-scheduled air transport services	No
Divestment in PSUs	Divestment proceeds of approximately Rs 150 bn	No
Competition Bill	All sectors under the purview of competition law, merger of weak/ failing banks excluded	Yes
SEB loan restructuring	US$38bn of loans restructured/ converted to state debt	No
Overseas Loans	Witholding tax lowered from 20% to 5%	No
Companies Bill (Amendments)	Ensures more transparent corporate governance	Yes
Forward Contract Regulation Act	Facilitate entry of institutional investors, introduce commodity options and derivatives trading	Yes
Land Acquisition Bill	For commercial land acquisition, and rehabilitation	Yes
Urea Price Hike	Price raised by Rs 50pmt.	No
National Food Security Bill, 2011	Provides for food and nutritional security by providing specific entitlements to certain groups	Yes
Public Procurement Bill, 2012	Regulate public procurement to further transparency, accountability, and probity in the procurement process	Yes
Mines and Minerals Bill, 2011	Consolidates and amends the law relating to the scientific development and regulation of mines and minerals	Yes
Goods and Services Tax (GST)	Landmark Change - for efficiency, GDP and tax collections	Yes
Direct Taxes Code (DTC)	A simplified Tax platform	Yes
Govt. UTI sale in select Stocks	Govt. has started talks to sell shares in Axis Bank, ITC and L&T (total holding ~Rs 44k crore)	No

Source: India Government, Citi Research

- **Valuations Reasonable, Earnings Stabilizing**

Valuations: below average – but average level has moved

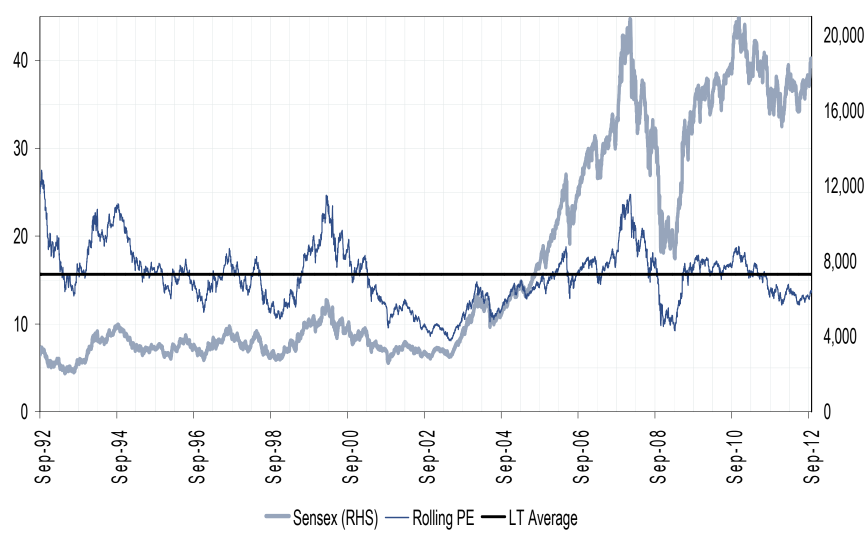
- India trading at 13.8 x 1-year forward earnings, below its long-term average of 15-16x
- Old averages are too high, given growth and ROE drop
- New average probably in the 14-15x range – contingent upon macro tailwinds

Sensex Valuation Matrix

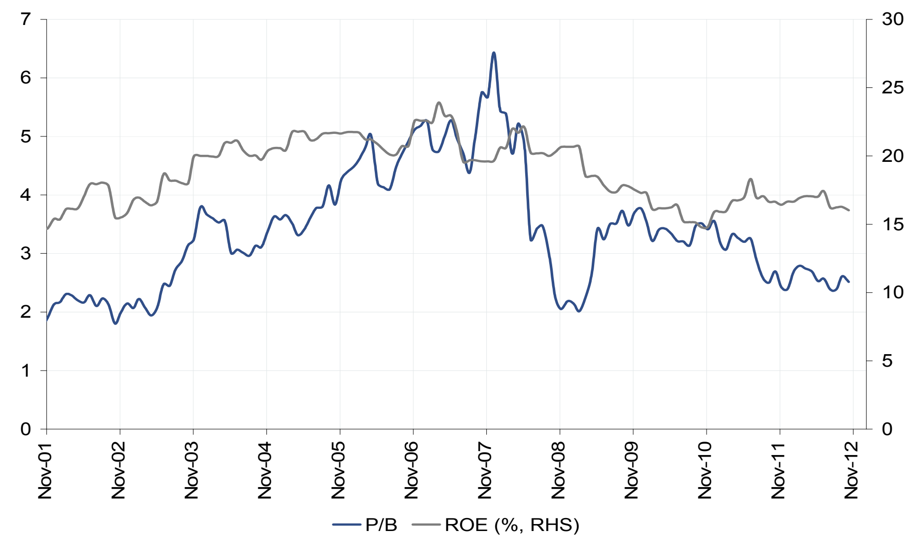
Year to 31 March	FY10	FY11	FY12	FY13	FY14
EPS growth (%)	-2.6%	20.9%	11.3%	9.6%	12.2%
P/E (x)	20.28	18.60	14.97	14.52	12.95
Div. yield (%)	1.56%	1.40%	1.80%	1.91%	2.07%
P/B (x)	3.23	3.1	2.66	2.43	2.23
ROE (%)	16.0%	16.8%	17.8%	16.7%	17.2%
EV/EBITDA* (x)	11.2	10.5	9.1	8.3	7.4
Net Debt/Equity* (%)	27.3%	33.4%	17.4%	14.9%	11.2%
P/E ex-oil	21.1	19.8	16.1	15.5	13.6
EPS	864	1,045	1,163	1,274	1,429
BVPS	5,419	6,221	6,543	7,609	8,294

* ex financials

Sensex and 12-month Forward Rolling PE



P/B vs. RoE

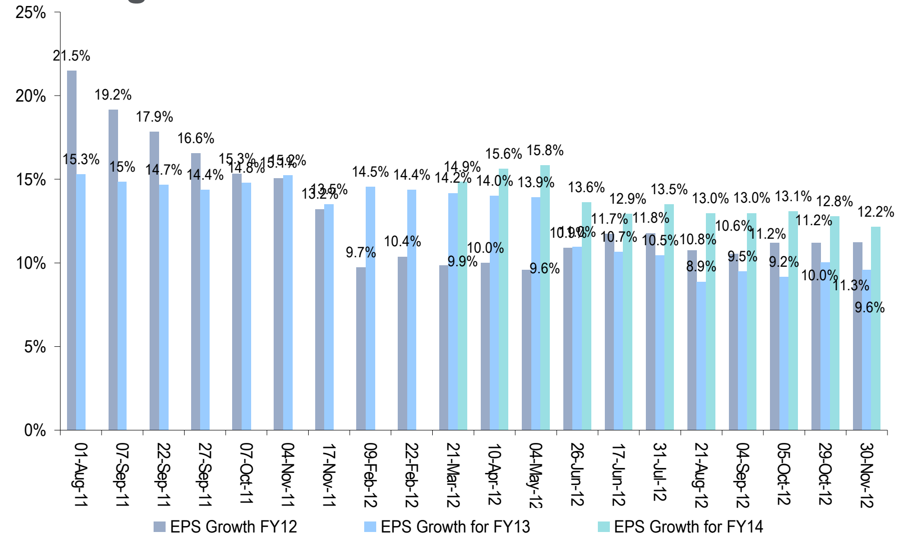


Source for all charts: Citi Research, Bloomberg, MSCI

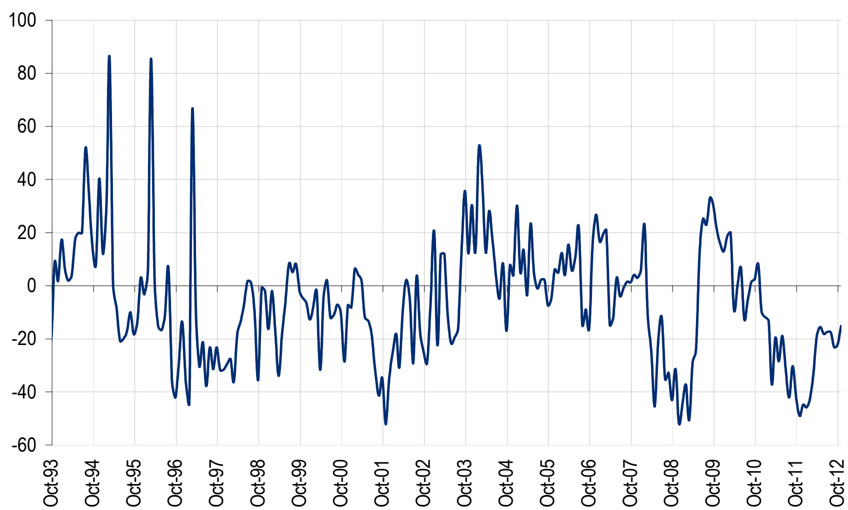
Earnings: more U than V

- FY13E earnings still close to double digits (9.6%)
- Indian earnings downgrades likely bottomed in Oct-11, however still seeing more downgrades than upgrades
- Expect the revisions and upgrades more U-shaped than V-shaped
- Greater corporate focus on returns than growth should support earnings

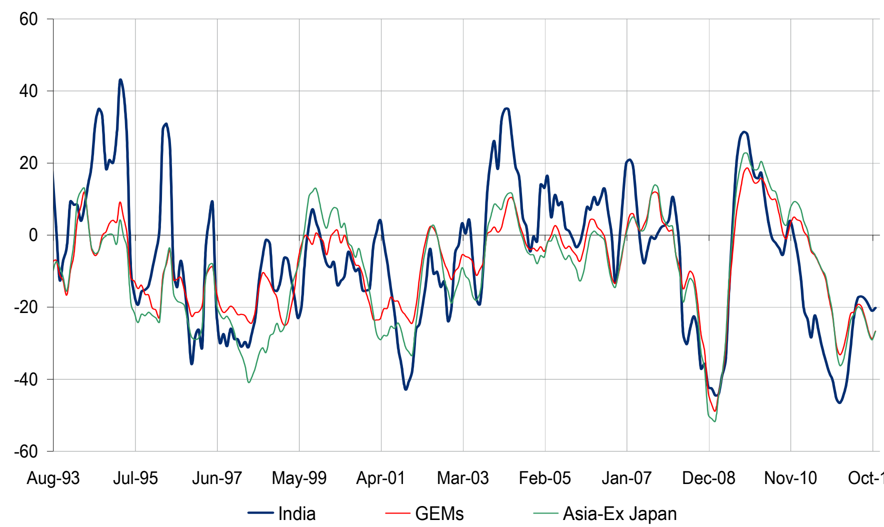
Earnings Growth Estimates – little downside



Earnings Revisions – tentative signs of stability



India revisions were sharper than peers

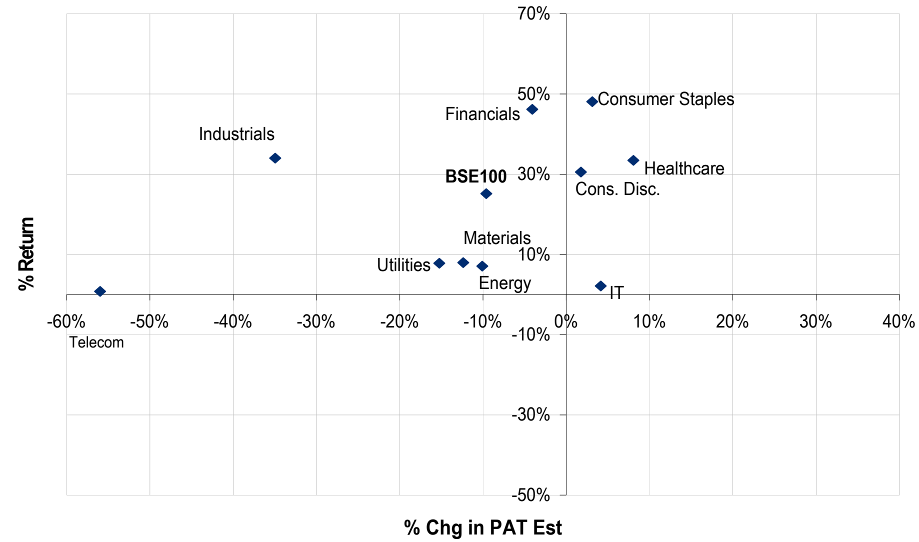


Source for all charts: Citi Research, IBES, Factset

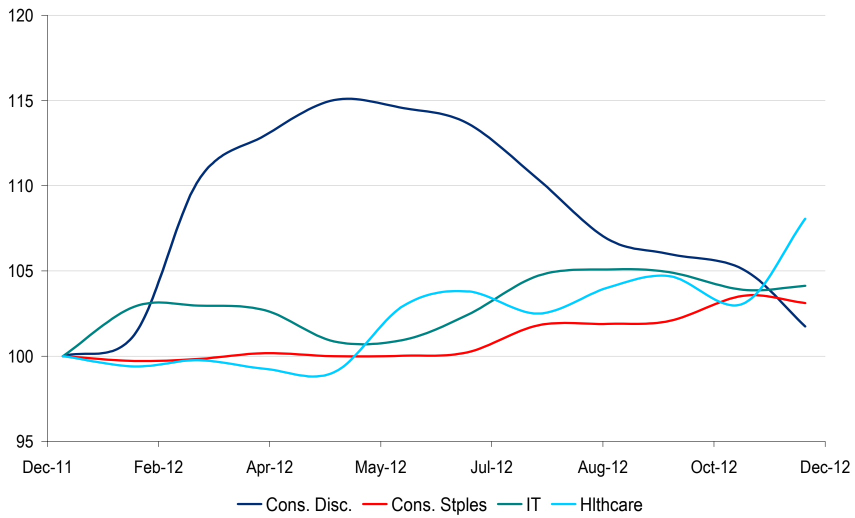
Earnings: where are the revisions?

- Earnings estimates of only consumers (staples & discr.), IT and healthcare have held
- Correlation of estimate changes and sector returns has broken recently
- Mkt has moved post reforms/ QE announcements, analysts still staying pat
- We expect earnings to hold, but do not foresee material upgrades

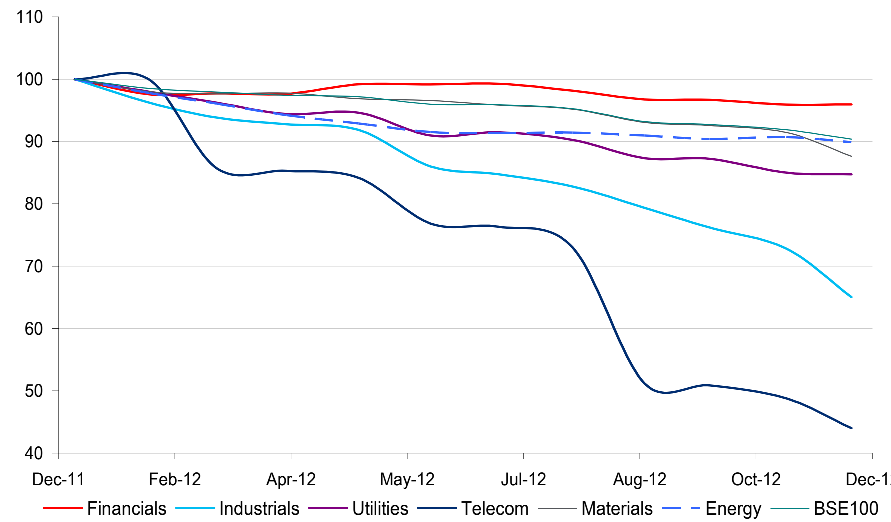
Chg in FY13 cons. earnings vs. ret. (2012 YTD)



Trends in cons. FY13 earnings est for BSE100 Cos



Trends in cons. FY13 earnings est for BSE100 Cos



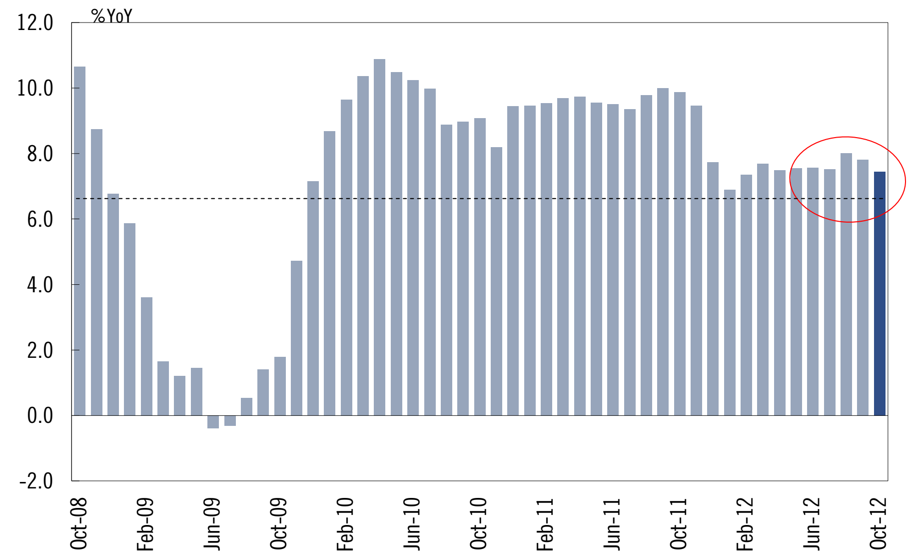
Source for all charts: Factset, Bloomberg, Citi Research

Macro Picture

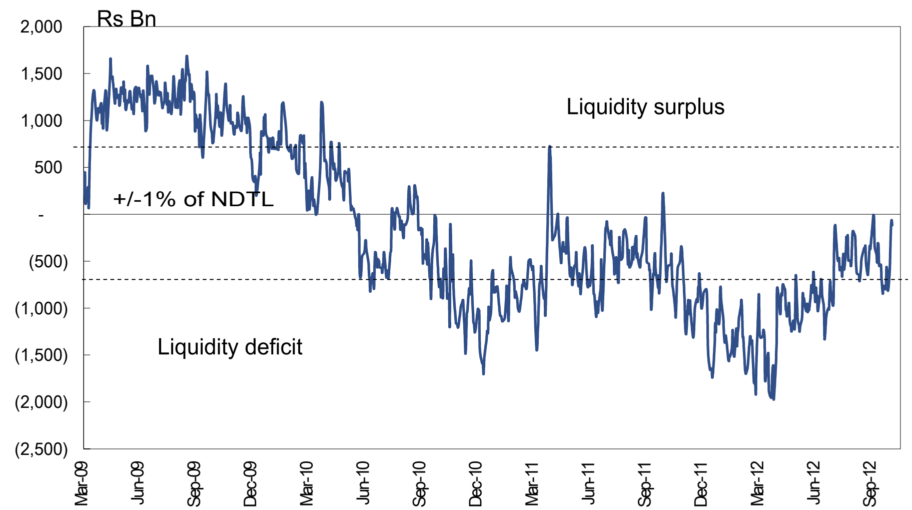
Macro: benefits of a slowdown?

- A poor macro has been India's bane for the last two years – it still looks ugly
- But, could it be reversing – a benefit of the growth/demand slowdown
- Liquidity – It has eased substantially
- Interest Rates – Don't only look at policy rate expectations : rates are falling in the market
- Currency – has weakened again and is back to pre-reform levels. With CAD remaining wide, currency is Increasingly becoming a structural weakness for India
- Inflation – Falling demand should start reflecting in core inflation

Trends in inflation



Trends in Liquidity

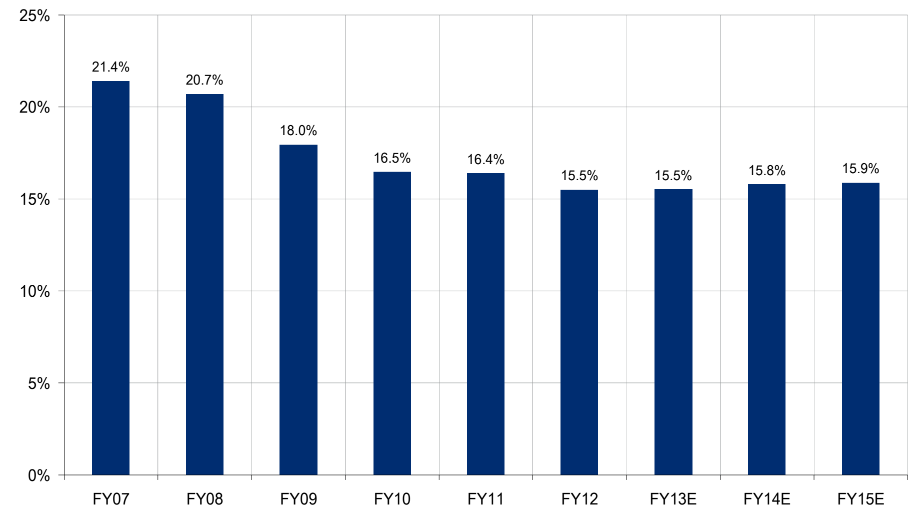


Source for both charts: CEIC, RBI

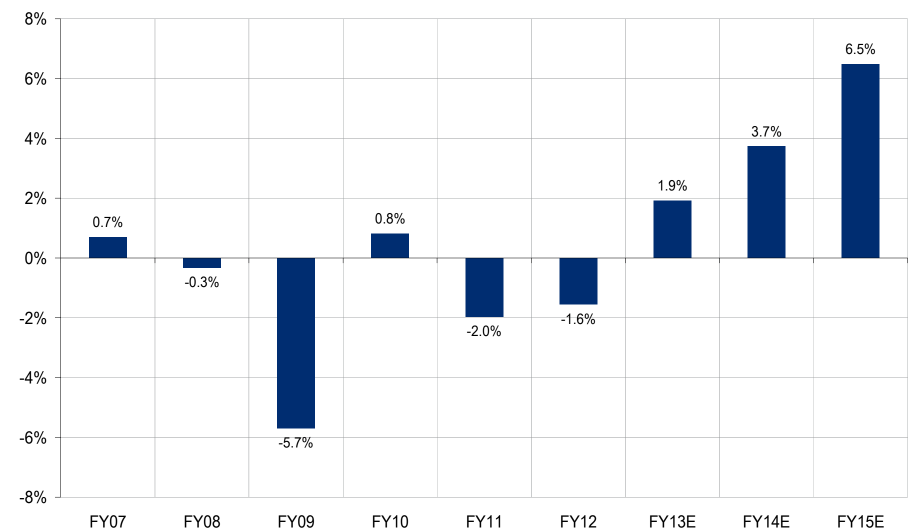
Corporates: stressed, but improving

- Returns for businesses are on the way up, but only gradually … structurally, we expect Indian ROEs to be lower than historic levels
- FCF yields should also be turning as corporate scale back investments
- Focus more on profitability than growth
- Peak balance-sheet and interest rate risks are now probably past, at aggregate

Citi Research Universe ROE Trend



Citi Research Universe FCF Yield Trend

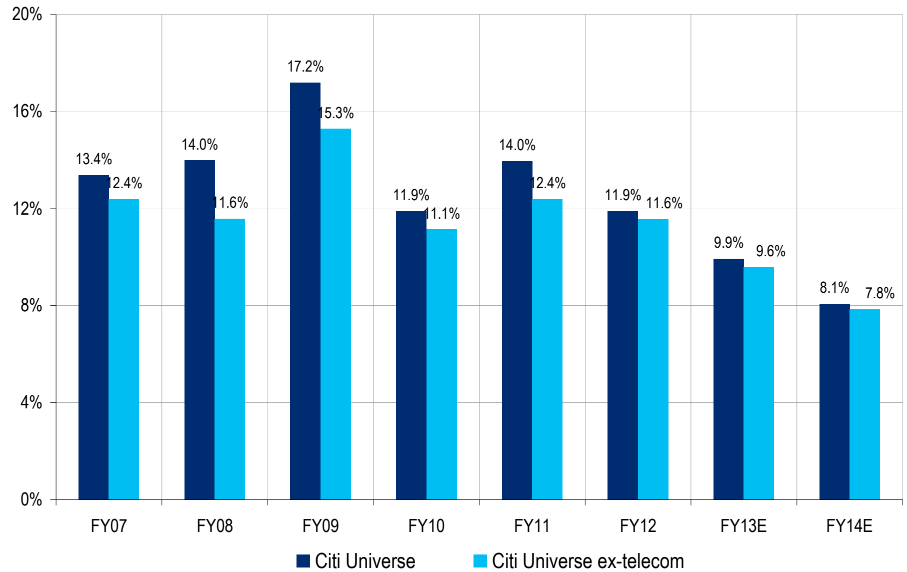


Source for both charts: Company data, Citi Research

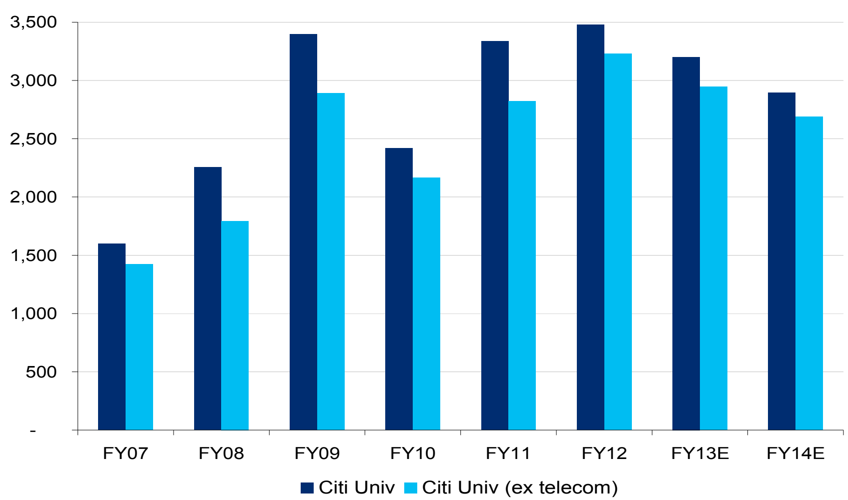
Capex cliff?

- Capex is slowing – a reflection of political, economic and funding uncertainty
- There could be an absolute decline over the next two years
- Sectorally, only pharma and metals are likely to see rise in capex (as % of sales) over four-year average
- Trouble for capital goods ?

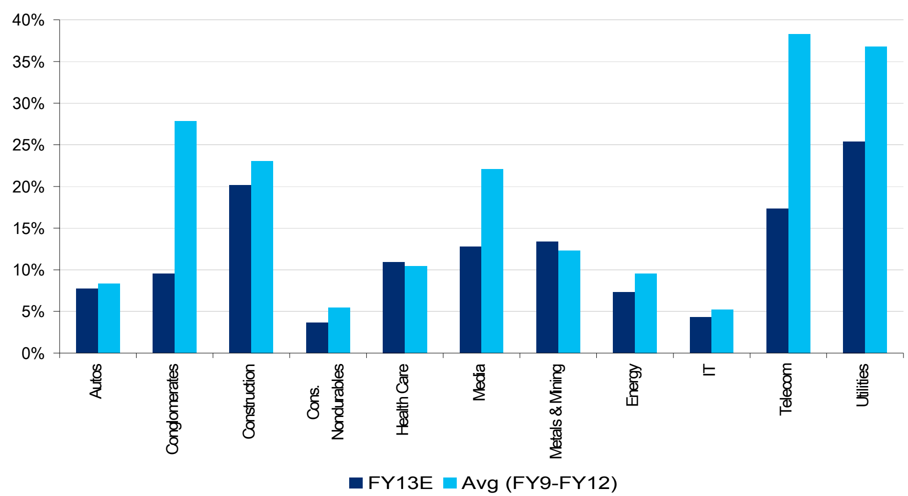
Capex as % of sales



Capex (Rs bn) for Citi Universe



Capex (as % of sales): FY13E vs. last 4 yr avg



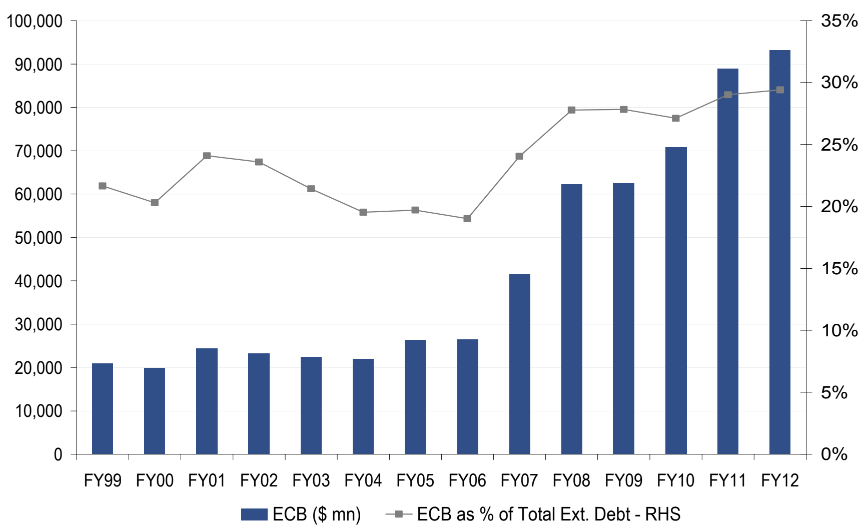
Source for all charts: Citi Research

The rupee: a fundamental vulnerability

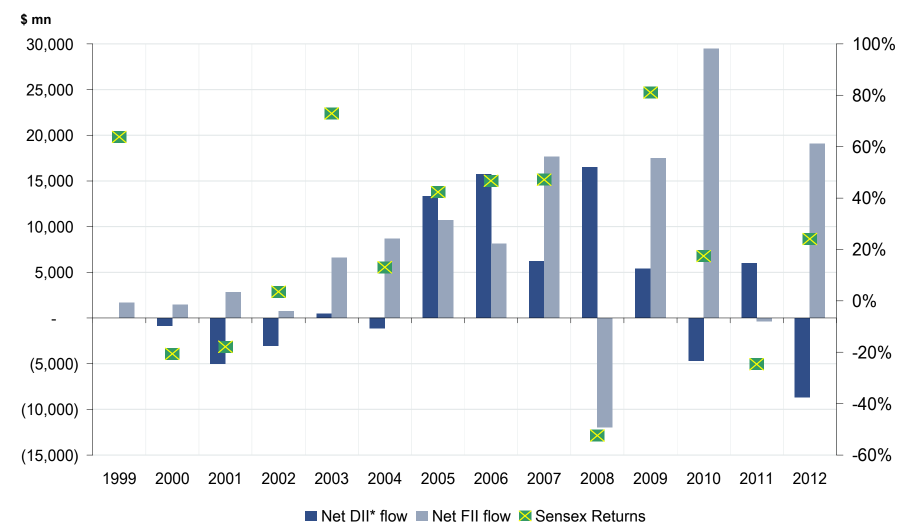
- There is a structural Gap
- Govt. realizing strong INR = lower fiscal deficit/ inflation
- Oil prices and Gold prices / demand remain critical….Exports appear to be a structural weakness
- And remittances / software exports remain stable
- The CAD should improve slowly…Oil Critical
- Longer Term – Rs53.8/$ (Mar'14)

Sensex and INR

External Commercial Borrowing (US$ Mn)



FII Flows & Sensex



Source for all charts: Citi Research estimates, Bloomberg, Ministry of Finance

Dipstick survey of Citi analysts views & expectations

Question – On Companies / Sectors Tracked by Analyst (over next 6 months)	Response (percentage of companies)		
Policy/ political risk	Yes	No	
	54%	46%	
Earnings trends over the next 6 months	Up	Down	No Change
	21%	29%	50%
Outlook for competition in your sector?	Increase	Decrease	No Change
	33%	5%	62%
Is leverage a concern?	Yes	No	
	25%	75%	
Investment plans	Increase	Decrease	No Change
	14%	14%	71%
Will lower interest rates benefit?	Yes	No	
	65%	35%	
How will strong rupee impact the operating performance of the company?	Benefit	Hurt	No impact
	27%	29%	44%

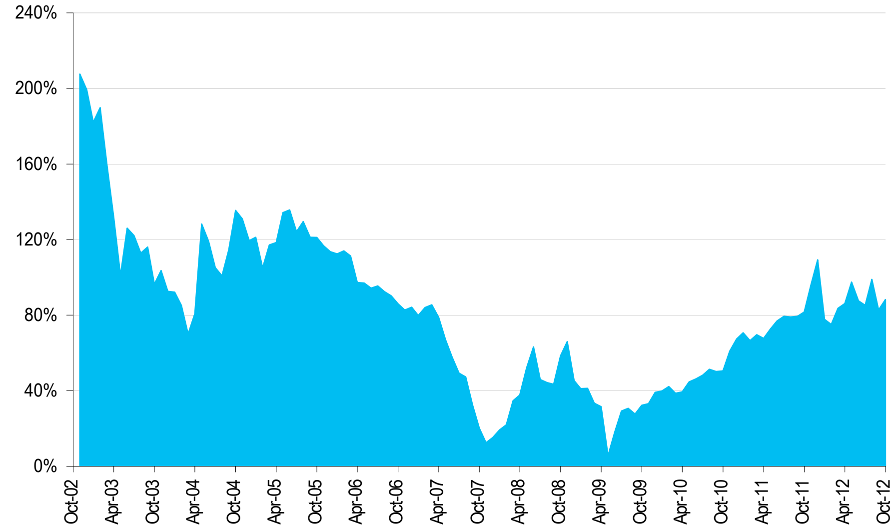
Source: Citi Research

Portfolio Positioning: Be Aggressive

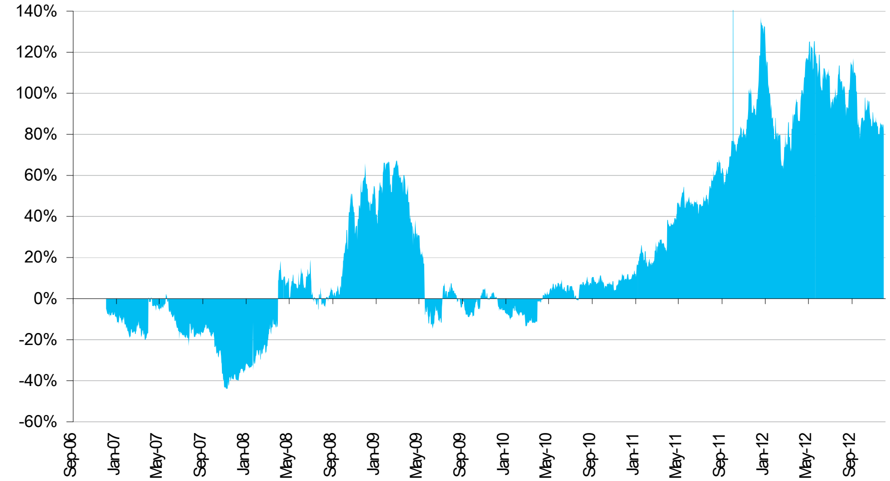
Valuation premium: cyclicals relative to defensives

- Valuation premium (fwd PE) of defensives rel. to cyclicals is still near five-year peak
- The valuation premium was much higher in early 2000s, but then economic structure was very different
- Investment-to-GDP ratio has risen from mid-20s in early 2000s to mid-30s
- Lower investments would eventually hurt consumption
- Given the prevailing risk aversion, defensive vs. cyclical premium has widened globally
- The premium however is more extreme in India's case

Valuation (PE) Prem. of defensives vs. cyclicals



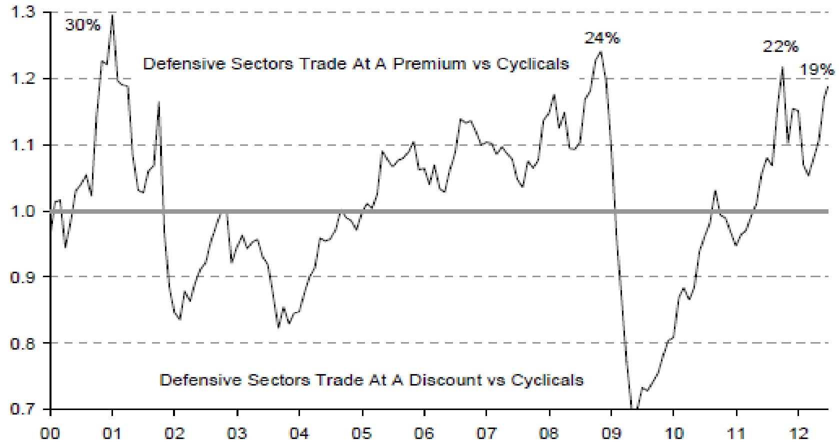
Valuation (PE) Differential: Cons. staples vs. Cap Goods



Source for both charts: Factset, Bloomberg, Citi Research

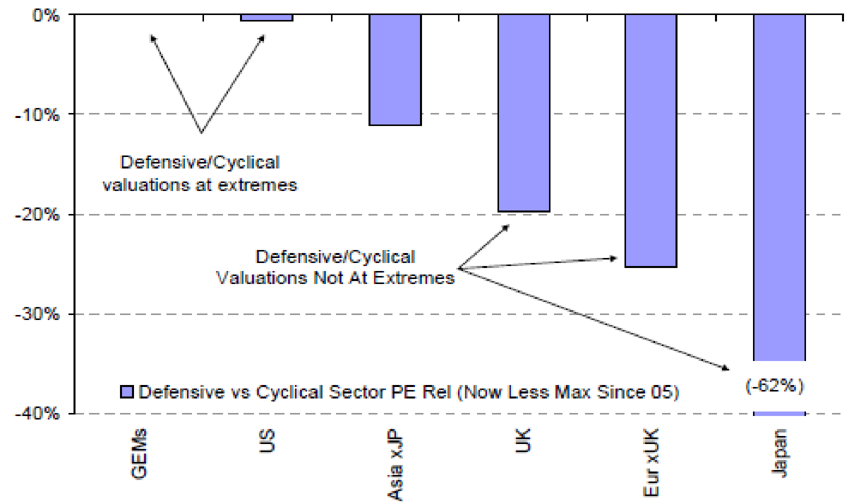
Valuation premium: cyclicals relative to defensives globally

Global cyclical vs. defensive valuations (fwd PE)

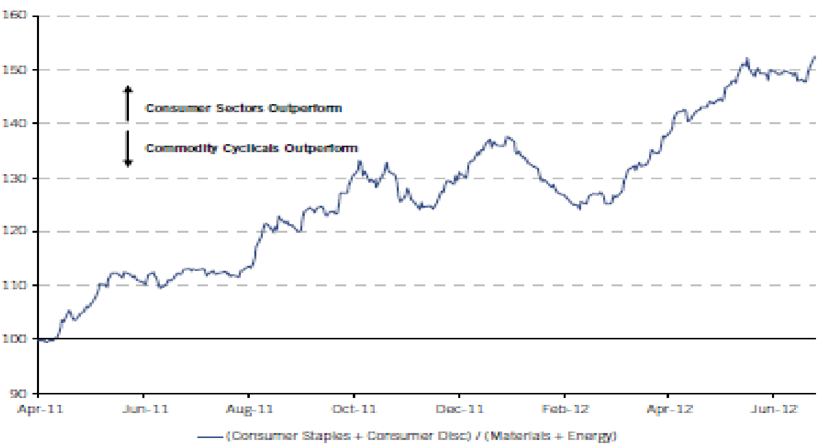


Defensives include Consumer Staples, Health Care, Telecoms and Utilities. Cyclicals include Energy, Materials, Industrials, Consumer Discretionary and IT. Source: MSCI, Factset, CIRA

Defensive/ cyclical valuation rel. to extremes



GEMs sector performance: Consumers vs. Cyclicals

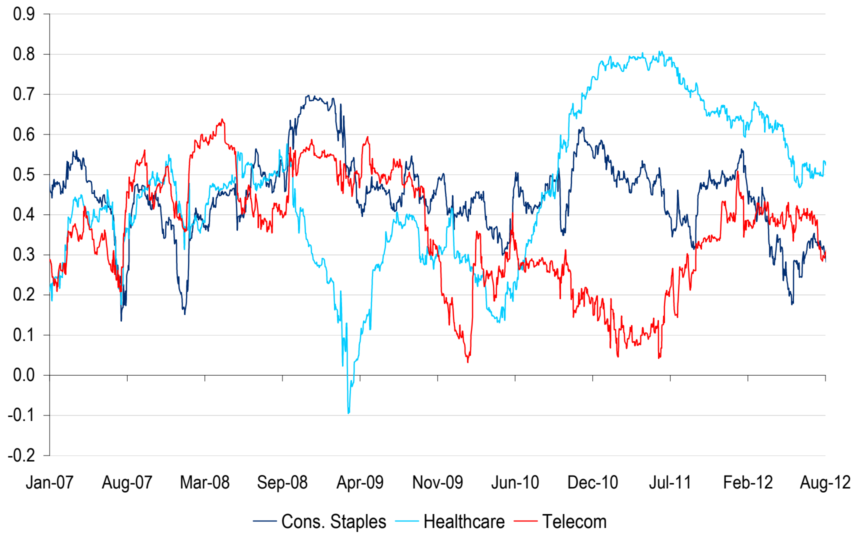


Fwd PE: GEMs Cons. Stpls vs. Avg of Enrgy & Mat

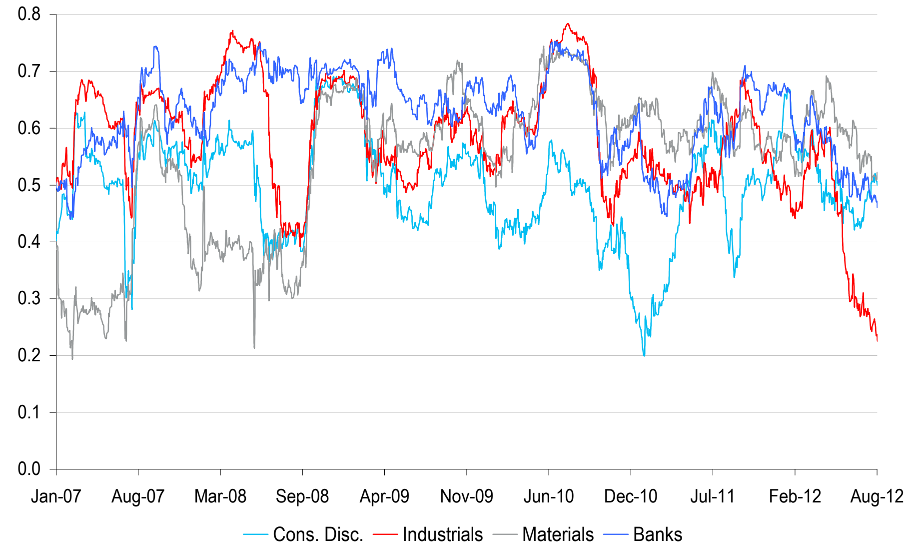
Source for all charts: MSCI, Factset, Citi Research

Cyclicals and defensives: India vs. GEMs

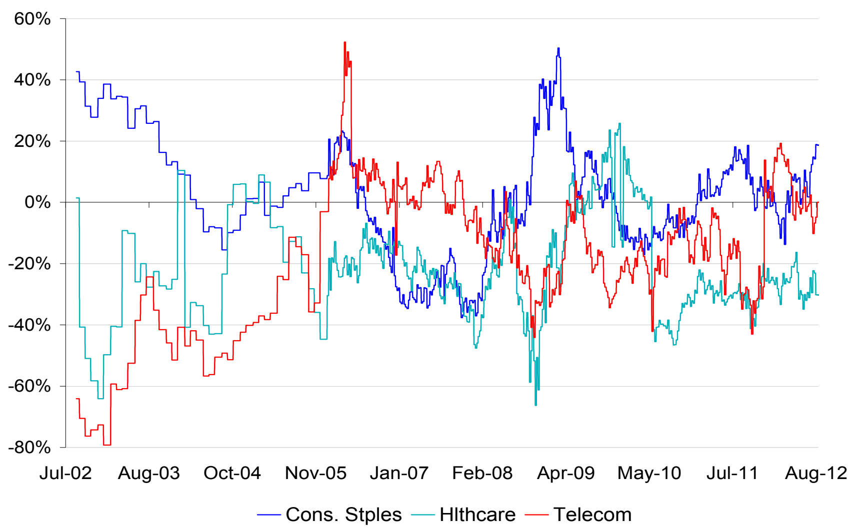
Defensive sector correlations: India vs. GEMs



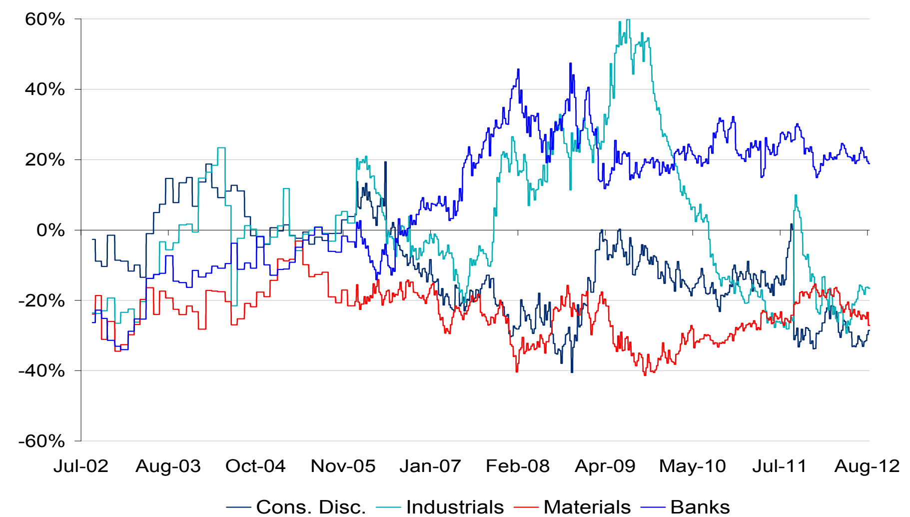
Cyclical sector correlations: India vs. GEMs



Defensive sector valuations: India vs. GEMs



Cyclical sector valuations: India vs. GEMs

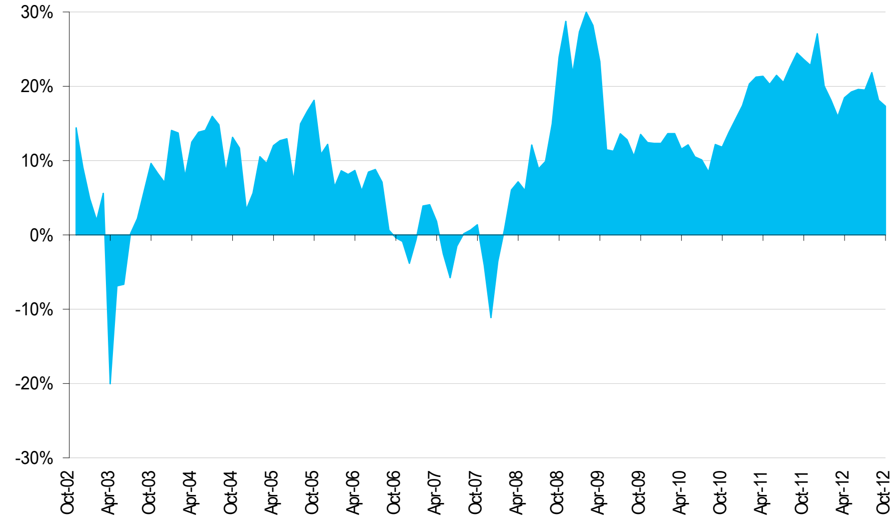


Source for all charts: MSCI, Datastream, Citi Research

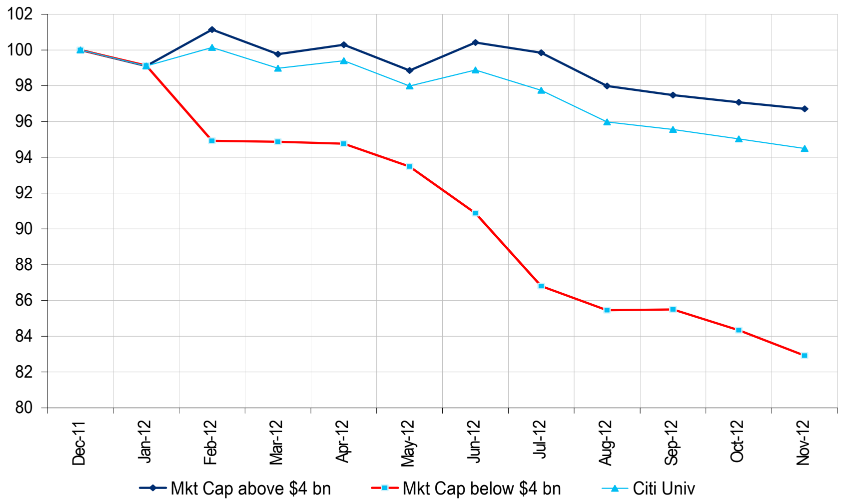
Large-caps vs. small/mid-caps in a difficult market

- Large-caps ($4bn+) are enduring the slowdown much better than small/mid-caps (below $4bn)
- Citi expectations for small/mid-cap earnings are down 17% in YTD
- Valuation discount of small/mid-caps stayed below GFC levels
- 2012 rally expectedly resulted in narrowing of this discount
- Mid-caps need a little more economic/interest rate support for a strong rally

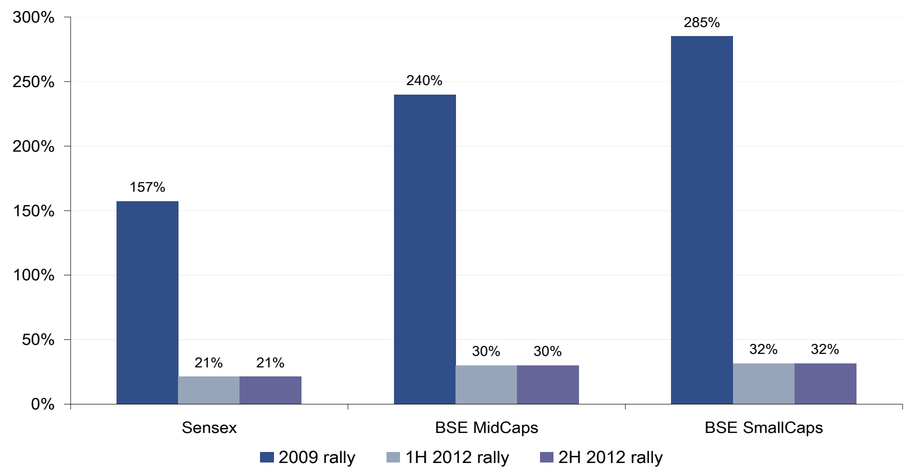
Small/mid-cap discount (P/E) relative to large-caps



FY13E PAT Revision Trends YTD



Performance: Small vs. Mid vs. Large caps

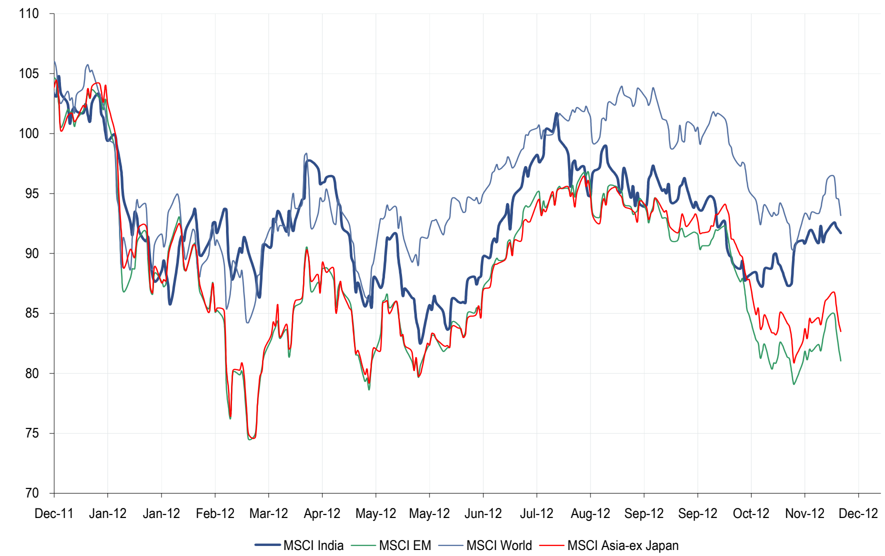


Source: Citi Research, Factset

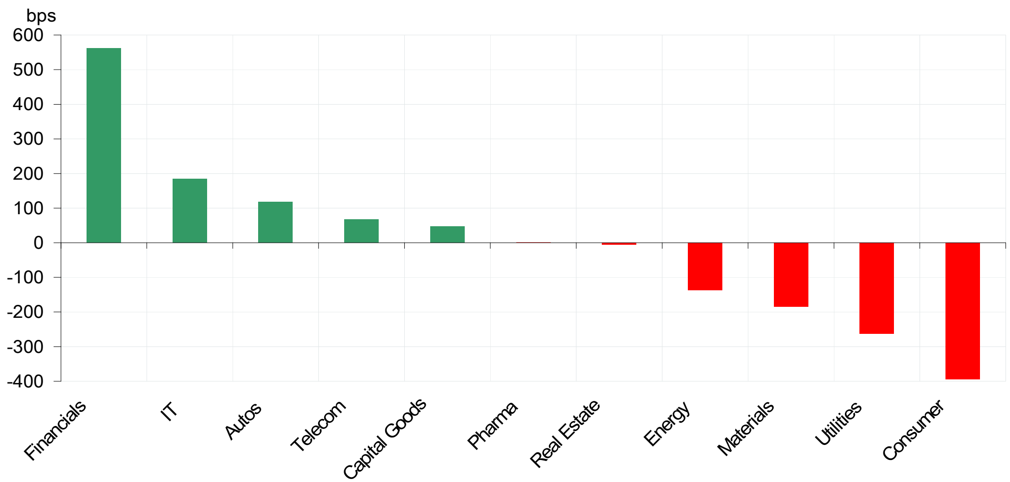
Investment strategy

- Forecast the market at 20,800 in Dec'13
- Aggressive stance, biased towards cyclicals and rate sensitives
- Overweight – Financials, IT, Autos, Capital Goods and Telecom
- Underweight – Consumers, Energy, Utilities and Materials
- Neutral – Pharma, Real Estate

Last 12-month Stock Market Performance



CIRA India Model Portfolio OW/UW vs. MSCI India



Source for both charts: Citi Research, Bloomberg, MSCI

Citi India model portfolio

	Price 29-Nov-12 (Rs)	YTD Perf. (%)	YTD Rel. Perf.	RIC	Rating	MSCI Weight (%)	Portfolio Weight	OW/ UW/Rel. MSCI (bps)	FY14 PE (x)	FY14 EPS Growth (%)	FY14 PB (x)	FY14 ROE (%)
Automobiles and Components						7.12	8.3	118				
M&M	933.3	36.6%	10.7%	MAHM.BO	2		2.0	U/W	16	27.8%	3.2	22.7%
Maruti	1487.5	61.7%	35.8%	MRTI.BO	1		2.5	O/W	15	77.9%	2.3	16.3%
Tata Motors	278.3	56.0%	30.1%	TAMO.BO	1		3.8	O/W	7	2.1%	1.6	25.9%
Banks & Diversified Financials						28.84	34.5	561				
AXIS Bank	1305.6	61.8%	35.9%	AXBK.BO	1		4.5	O/W	10	36.7%	1.7	19.3%
IDFC	167.0	82.0%	56.1%	IDFC.BO	1		1.2	M/W	11	41.8%	1.6	15.1%
HDFC	821.0	26.4%	0.5%	HDFC.BO	1		8.2	O/W	22		4.4	21.4%
HDFC Bank	698.8	63.6%	37.7%	HDBK.BO	2		5.5	U/W	20	62.2%	3.9	21.7%
ICICI Bank	1081.8	58.0%	32.1%	ICBK.BO	1		6.3	O/W	12	57.1%	1.7	14.5%
State Bank of India	2132.1	31.6%	5.8%	SBI.BO	1		4.5	O/W	10	15.8%	1.4	14.0%
Yes Bank	443.1	85.7%	59.8%	YESB.BO	1		1.2	O/W	10	63.4%	2.2	24.9%
Kotak Mahindra	648.7	50.1%	24.2%	KTKM.BO	2		1.2	M/W	18	41.7%	2.7	16.1%
Bank of Baroda	740.3	12.0%	-13.9%	BOB.BO	1		1.2	O/W	5	15.5%	0.8	17.2%
MCX	1541.8			MCEI.BO	1		0.7	O/W	23	18.5%	5.9	27.5%
Industrials & Capital Goods						5.62	6.1	48				
Larsen & Toubro	1662.0	67.0%	41.1%	LART.BO	1		4.0	O/W	18	30.7%	3.1	18.5%
Adani Port & SEZ	125.4	4.0%	-21.9%	APSE.BO	1		1.0	O/W	14	52.7%	3.2	24.9%
Jaiprakash Associates	94.7	80.7%	54.8%	JAIA.BO	1		1.1	O/W	25	-21.0%	1.5	6.2%
Energy						10.03	8.7	-136				
Reliance Industries	796.5	15.0%	-10.9%	RELI.BO	2		7.6	M/W	11	9.4%	1.2	11.0%
Cairn	328.9	4.9%	-21.0%	CAIL.BO	1		0.6	M/W	7	20.9%	1.0	15.8%
BPCL	336.5	40.5%	14.6%	BPCL.BO	1		0.5	M/W	17	6.3%	1.5	8.6%
Consumer						12.64	8.7	-394				
ITC	297.9	48.0%	22.1%	ITC.BO	1		4.8	M/W	27	40.9%	9.8	38.9%
HLL	547.8	34.3%	8.4%	HLL.BO	3		2.9	U/W	33	38.2%	31.6	107.3%
Sun TV	406.7	48.3%	22.4%	SUTV.BO	1H		1.0	O/W	18	25.5%	5.2	30.1%
Materials						8.45	6.6	-185				
Coal India	368.9	22.6%	-3.3%	COAL.BO	1		0.5	U/W	13	24.1%	3.7	32.1%
Hindalco	113.4	-2.1%	-28.0%	HALC.BO	3		0.8	M/W	7	-39.2%	0.6	8.9%
Jindal Steel & Power	381.5	-15.8%	-41.7%	JNSP.BO	1		1.5	O/W	8	9.5%	1.4	18.1%
Grasim	3303.7	31.7%	5.8%	GRAS.BO	1		1.5	O/W	9	35.3%	1.3	16.5%
Tata Steel	377.0	12.4%	-13.5%	TISC.BO	1		0.8	M/W	9	108.6%	0.8	9.1%
Sesa Sterlite	178.6	9.8%	-16.1%	SESA.BO	2		1.5	M/W	5	6.1%	0.7	14.1%
Pharmaceuticals, Biotechnology, Agrochem						5.49	5.5	1				
Ranbaxy	512.2	26.4%	0.5%	RANB.BO	1H		1.0	O/W	15	76.2%	3.4	33.4%
Dr Reddy	1808.8	14.6%	-11.3%	REDY.BO	1		1.5	O/W	16	49.3%	3.4	23.3%
Lupin	578.7	29.4%	3.5%	LUPN.BO	1		1.0	O/W	18	63.6%	4.2	26.2%
United Phosphorus	114.3	-9.9%	-35.8%	UNPO.BO	1		2.0	O/W	5	63.6%	0.9	19.7%
Software & Services						14.65	16.5	185				
Infosys Technologies	2444.9	-11.6%	-37.5%	INFY.BO	1		11.4	O/W	14	21.2%	3.1	24.2%
Tata Consultancy Services	1298.1	11.8%	-14.1%	TCS.BO	2		1.9	U/W	17	41.9%	4.9	32.6%
HCL Technologies	641.1	65.1%	39.2%	HCLT.BO	1		1.5	O/W	13	51.3%	2.8	23.7%
Telecom Services						2.13	2.8	67				
Bharti Airtel	330.2	-3.7%	-29.6%	BRTI.BO	1		1.8	O/W	23	26.2%	2.2	9.8%
Idea Cellular	99.5	21.3%	-4.6%	IDEA.BO	1		1.0	O/W	23	153.5%	2.1	10.0%
Utilities						4.12	1.5	-262				
Tata Power	105.9	21.3%	-4.6%	TTPW.BO	3		0.5	U/W	20	19.2%	1.9	10.0%
Power Grid Corp	118.0	18.1%	-7.8%	PGRD.BO	1		1.0	M/W	12	38.0%	1.9	16.3%
Real Estate						0.91	0.9	-6				
Phoenix	209.1	26.5%	0.6%	PHOE.BO	1		0.3	O/W	18	59.3%	1.6	9.2%
Total						100.0	100.0					

Source: Citi Research

*Weights may not add to 100 due to regulatory restrictions

Top picks for 2013

	Ticker	Rating	Price (Nov 27)	Target Price	Yield (%)	ETR (%)	FY14E P/E	FY14E P/BV	FY14E ROE (%)
Top Large Cap Buys									
AXIS Bank	AXBK.BO	1	1,290	1,433	1.6	12.6	9.50	1.65	19.3
ICICI	ICBK.BO	1	1,034	1,200	1.8	17.7	11.74	1.61	14.5
Infosys	INFY.BO	1	2,469	2,710	2.5	11.9	13.99	3.14	24.2
Maruti Suzuki	MRTI.BO	1	1,493	1,681	0.6	13.1	14.83	2.27	16.3
Bharti	BRTI.BO	1	327	353	1.9	8.7	23.07	2.22	9.8
Top Mid Cap Buys									
Apollo Hospitals	APLH.BO	1	875	860	0.9	-0.8	27.35	3.84	14.8
IDEA	IDEA.BO	1	100	112	0.0	11.9	22.66	2.16	10.0
Sun TV Network	SUTV.BO	1H	389	400	3.1	5.5	17.59	5.02	30.1
LIC Housing Fin	LICH.BO	1	249	290	2.0	17.9	8.96	1.53	18.3
Exide Ind	EXID.BO	1	145	183	1.7	27.8	15.04	3.02	21.6
High Risk/ High Return Buys									
JAL	JAIA.BO	1	93	97	0.5	5.1	24.48	1.47	6.2
Jet Airways	JET.BO	1H	542	545	0.0	0.5	-6887.33	69.62	-1.0
Jindal Steel	JNSP.BO	1	379	574	0.5	51.7	8.17	1.36	18.1
United Phosphorus	UNPO.BO	1	112	205	1.8	85.2	4.81	0.87	19.7
IRB Infra Dev	IRBI.BO	1	126	238	2.4	91.2	8.24	1.15	14.7

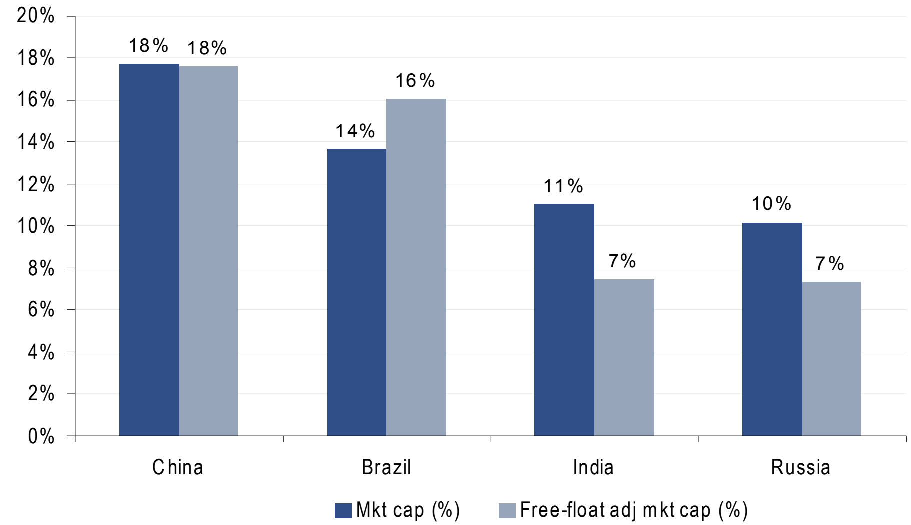
Source: Citi Research

Thematics

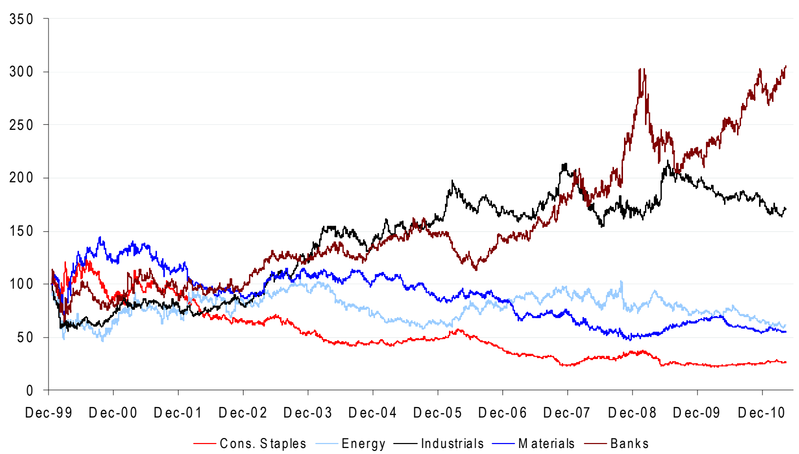
India and the index

- Free-float /Mkt cap-based index based ratio low for India…should normalize with capital raising and divestments
- Consumers have meaningfully underperformed EM/DM over the decade – Time to reverse?
- Materials / Energy have also structurally under-performed EM/DMs – execution/pricing/control issues ? These could well be structural laggards

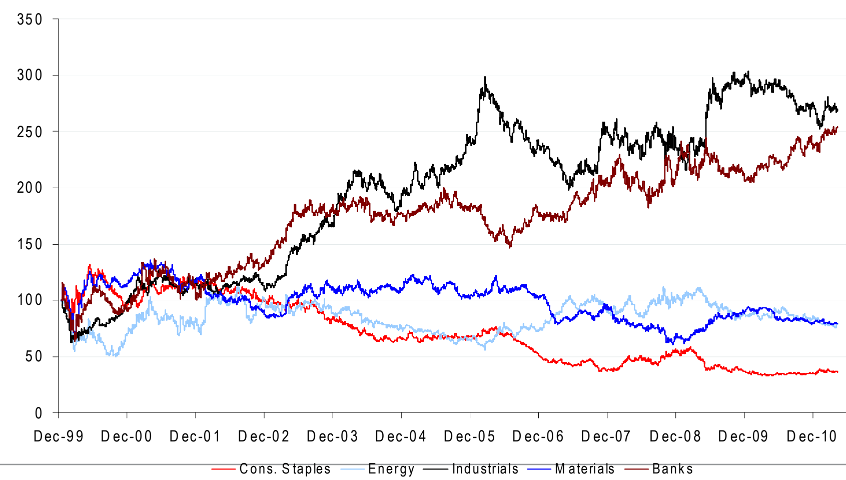
Weights of BRICs in MSCI EM: float adjstd vs. total mkt cap



India sector performance rel. to DM sectors (adj. for mkt ret)



India sector performance rel. to EM sectors (adj. for mkt ret)

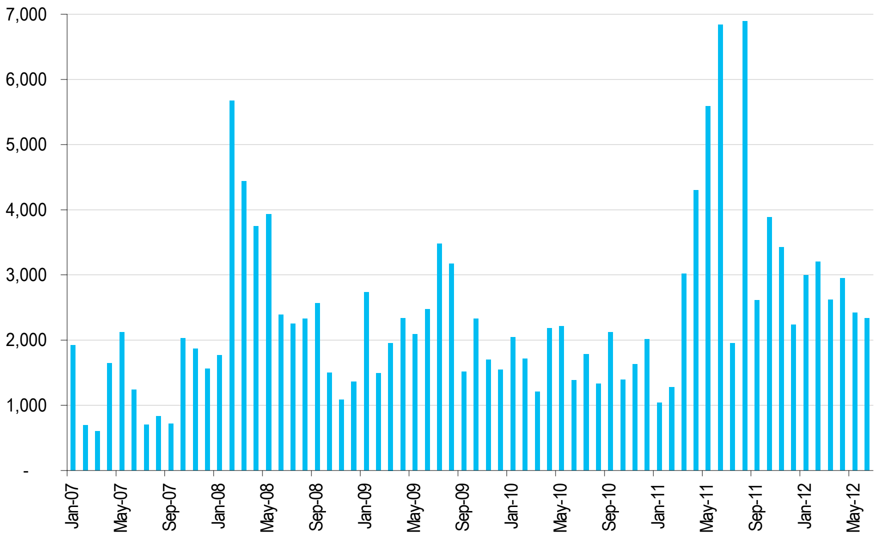


Sources for all charts: MSCI, Datastream

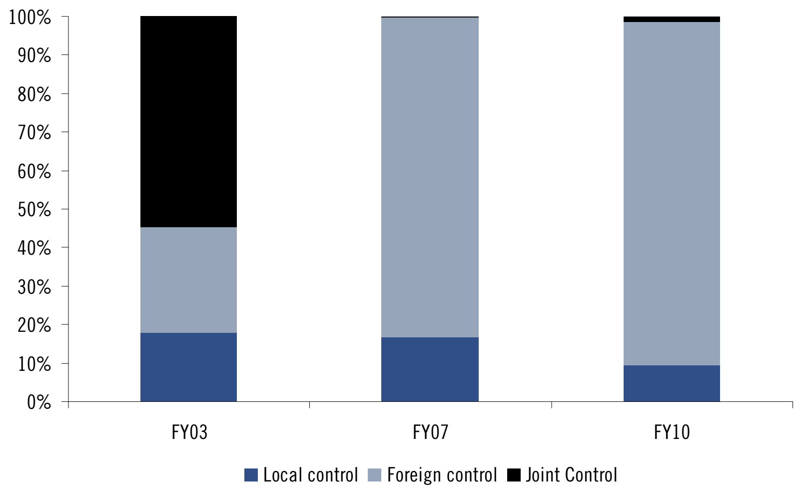
The less-known story: rising FDI, falling control?

- India now the 9th most attractive FDI destination, with inward FDI in the $30bn+ range
- Market value of FDI investments is ~$400bn, 2x FII investments
- Less for the equity investor/market? – a) less market representation, b) higher competition, and c) though expands the economy
- Controlled FDI probably better for both domestic co's and Indian equity investors

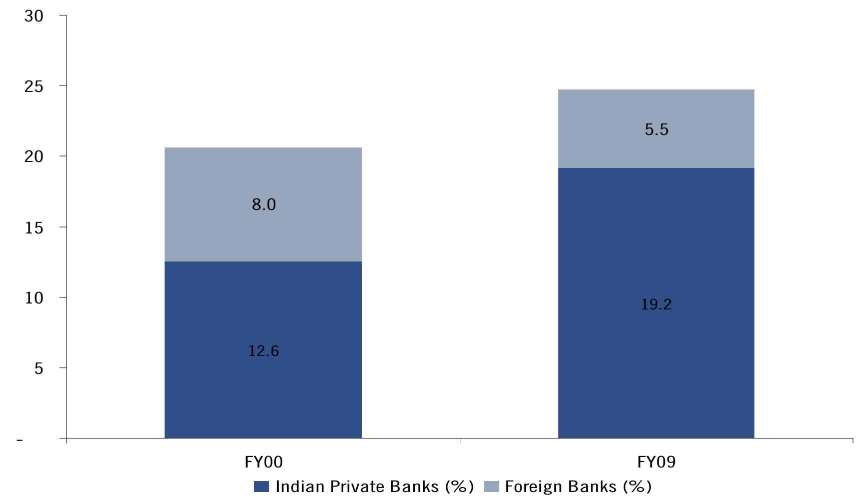
FDI Inflow into India (USD mn)



Autos: Market Shares in Passenger Car Sales



Banks: Market Shares in loans

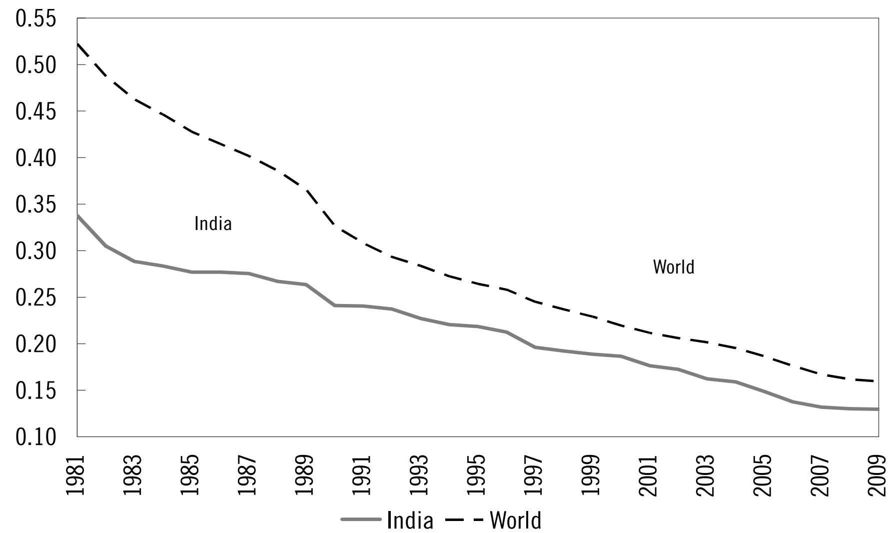


 Sources for all charts: SIAM, RBI and DIPP

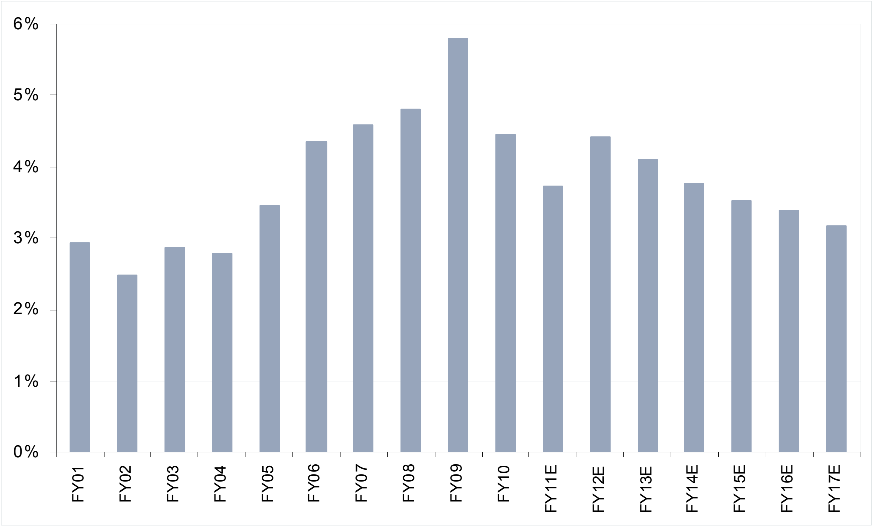
Oil/commodity dependence

- Oil is a risk – undermines inflation, fiscal and FX, given big net importer and demand growth
- Rising oil has historically hurt India's market meaningfully.
- But energy demand growth is lagging GDP growth – incrementally impact will diminish even if oil prices structurally rise 5% from here yearly
- Is a pain trade now – but with subsidies and risks in, could this be one of the bigger expectation cushions ahead ?

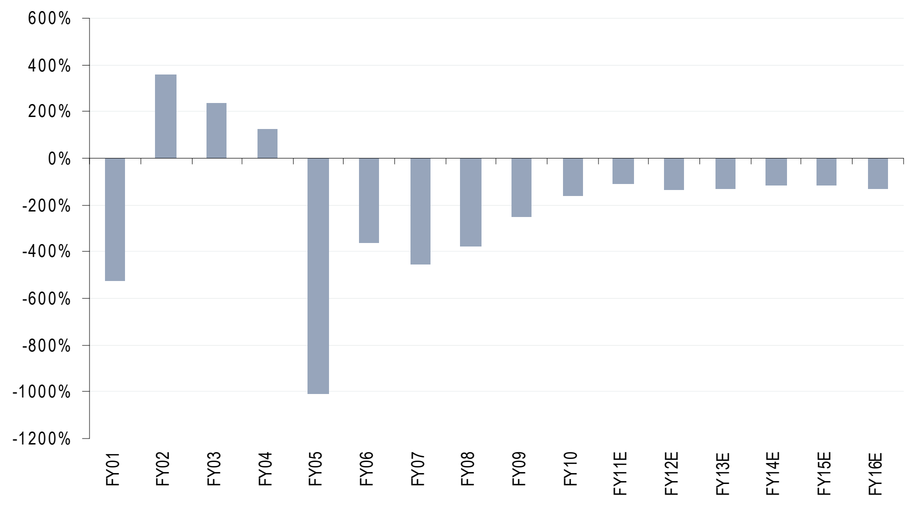
Energy intensity (toe per '000$ GDP)



Oil import bill as % of nominal GDP



Oil import bill as % of Current Account Deficit

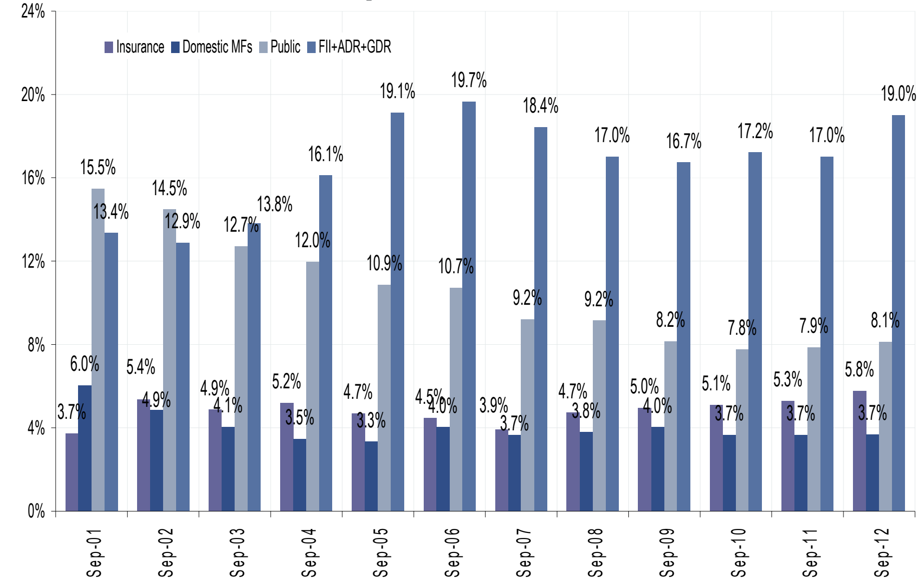


Sources for all charts: EIA, CSO, RBI, Citi Research

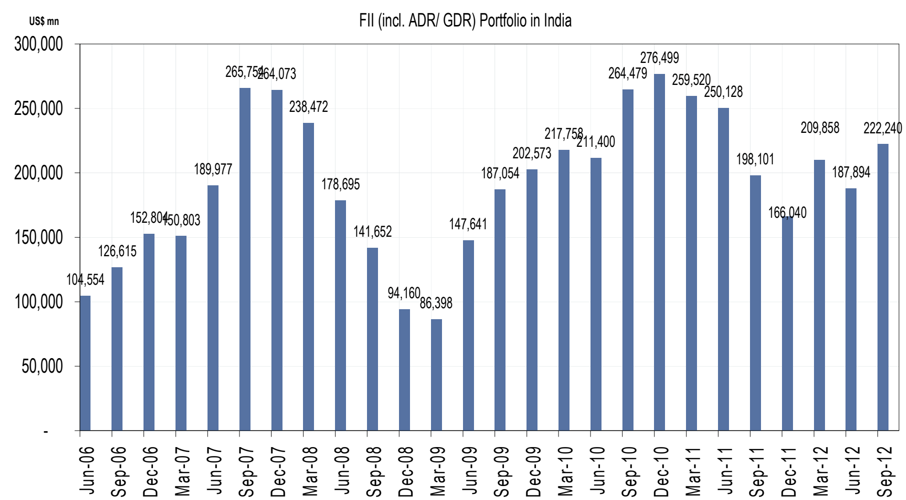
Dependence on foreign flows

- India remains meaningfully dependent on global capital flows – 19% is held by FII portfolio investors, which about 2X of domestic institutional investors
- Current FII holding estimated at about $222bn
- Given large base, a +-10% flow can impact the market meaningfully … but a +10% increase in commitment can be of significant support, without being a meaningful reallocation
- Over recent years, the upside impact of flows on the market has been moderating, particularly as capital issues invariably follow strong markets

Trends in ownership of BSE500



Market Value of FII Portfolio

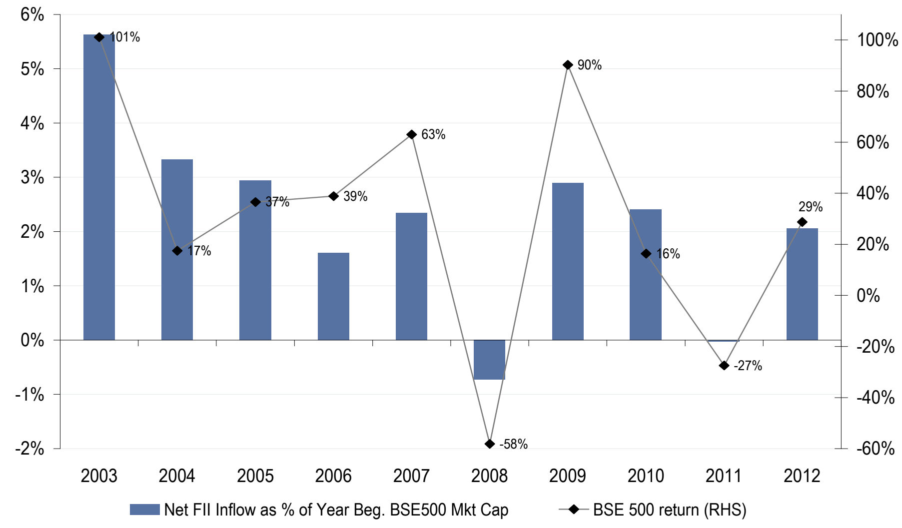


Source for both charts: CMIE

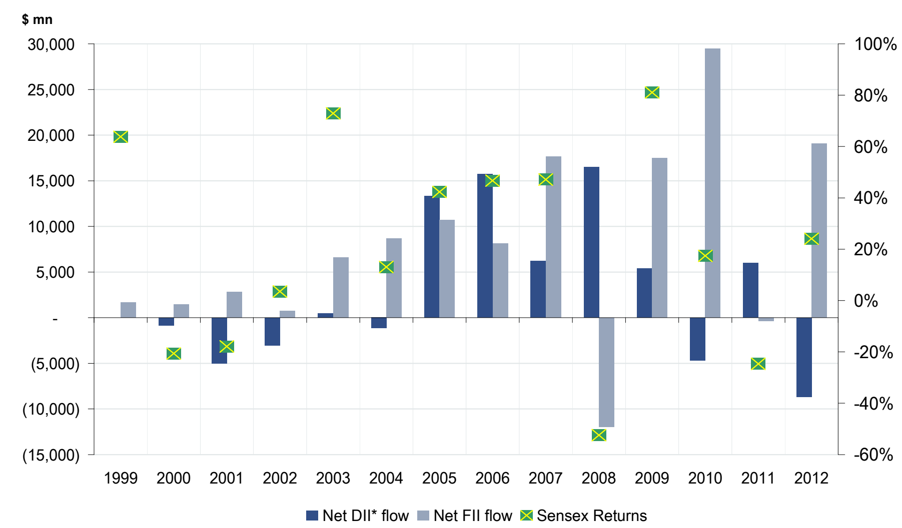
Capital flows: make a comeback in 2012

- Foreigners were conspicuous by their absence in 2011 (net FII flows: -$358mn), while DII pumped in $6bn
- 2012 YTD has seen a strong reversal in flows:
- FIIs: $19bn, DIIs: -$9bn
- The influence of global capital flows is apparent: 2010 was driven up by $29bn+ inflows, and we are seeing a repeat in 2012
- India's dependence on global flows is uncomfortably high – and currently expectations are a little loaded against it
- Domestic flows tend provide counter-balance, but not enough of a driver

FII inflows and the market



Equity flows and Sensex returns

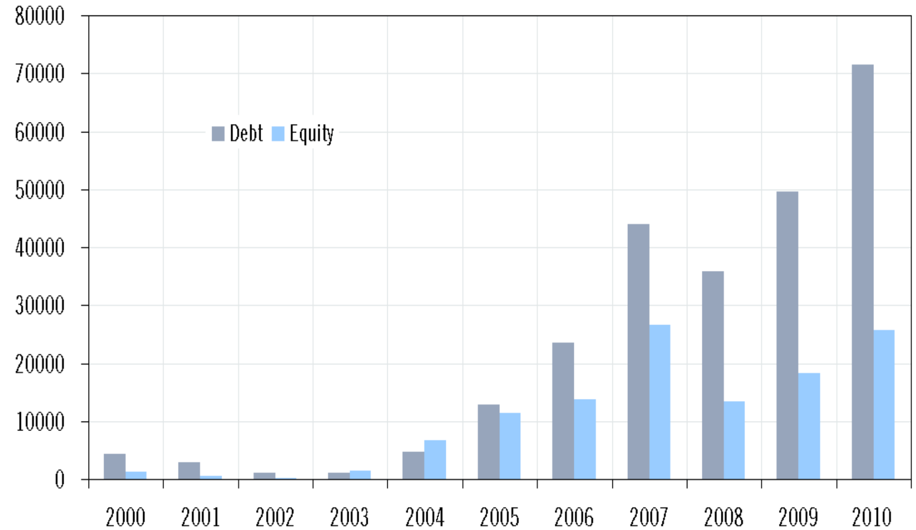


Source for all charts: Citi Research, Bloomberg, SEBI

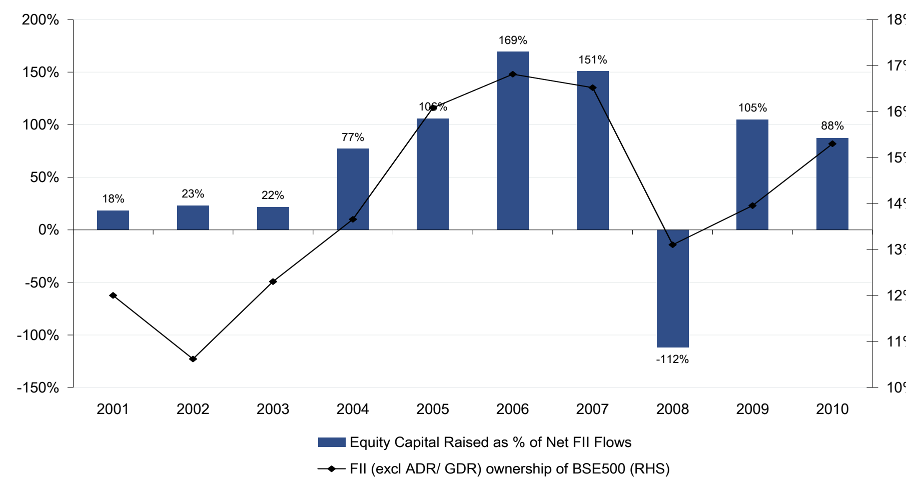
Capital issuance – in a weak market ?

- Capital raising has been good for the Indian economy, and has grown the market
- 2010 saw record debt issuance ($72bn), equity issuance ($26bn) just shy of 2007 record high
- Enough capital raised in the system for most – not all – companies to maintain relatively strong investment and growth trajectories
- India will likely stay capital-hungry; this should remain a feature of the market
- Chicken-and-egg story – strong markets will be moderated by raisings, but weak ones unlikely to push down
- Government divestments in a weak market could be a risk

Debt and Equity Capital Raised



Equity Capital Raised vs. FII Flows

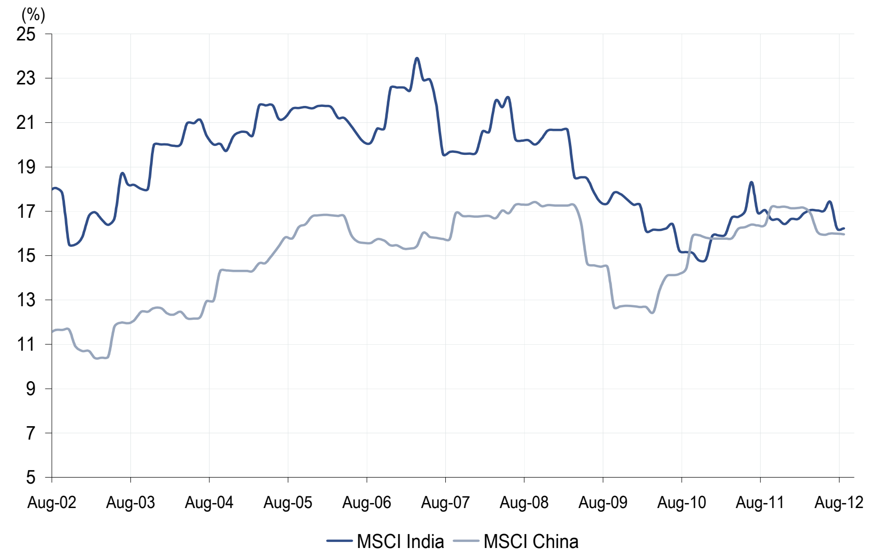


Source for both charts: Bloomberg, Citi Research

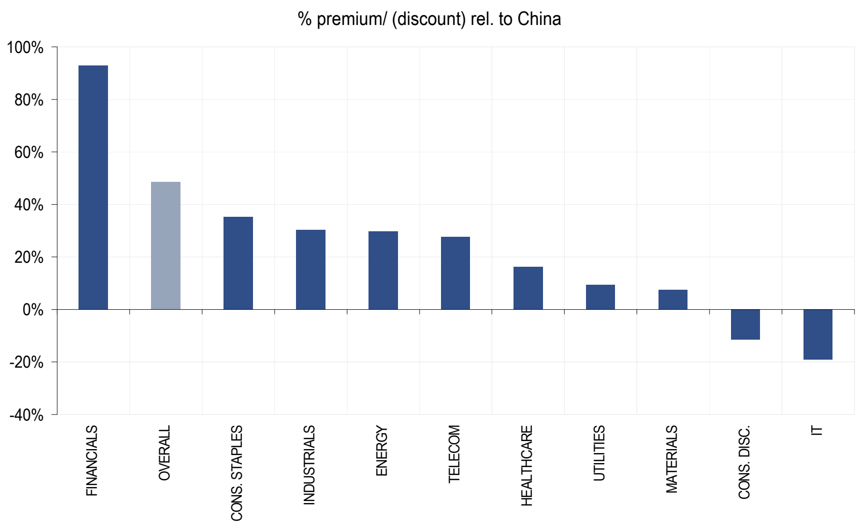
India vs. China – valuation premium has contracted

- India's PE premium has been driven by its ROE premium ... With contraction in ROE differential, valuation premium has also narrowed.
- Fundamental reflection of Indian valuation trends? … higher growth, but lower returns = lower valuations
- India's significant outperformance over 2009/10 has now reversed meaningfully in 2011. We seem to be in the midst of another reversal now

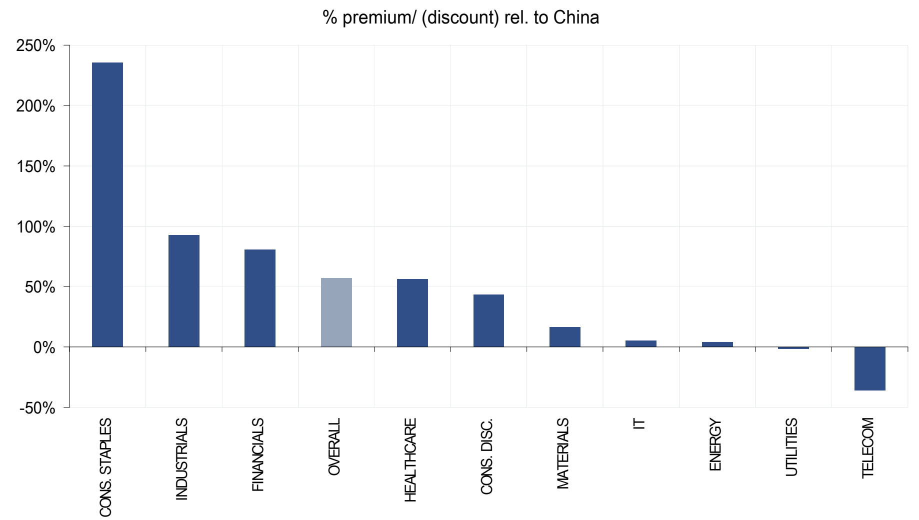
ROE Comparison



PE Comparison



PB Comparison



Source for all charts: MSCI, Datastream

Macroeconomic Summary and Forecasts

Macroeconomic Forecasts

Calendar Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E
Fiscal Year to 31 March	**FY04**	**FY05**	**FY06**	**FY07**	**FY08**	**FY09**	**FY10**	**FY11**	**FY12**	**FY13E**	**FY14E**
National Income Indicators*											
Nominal GDP (US$ bn)	623.5	720.5	833.7	950.2	1240.6	1223.9	1362.3	1683.7	1,841	1,844	2,159
Per Capita GDP (US$)	582	662	754	847	1,090	1,061	1,164	1,420	1,532	1,511	1,718
Real GDP growth (%)	8.1	7	9.5	9.6	9.3	6.7	8.4	8.4	6.5	5.4	6.2
Agriculture growth (%)	9	0.2	5.1	4.2	5.8	0.1	1	7	2.8	0.5	3
Industry growth (%)	7.3	9.8	9.7	12.2	9.7	4.4	8.4	7.2	3.4	3.2	4.4
Services growth (%)	8.1	8.1	10.9	10.1	10.3	10	10.5	9.3	8.9	7.5	7.8
By Demand * (%YoY)											
Consumption	5.4	2.3	8.6	7.9	9.3	7.6	8.1	8.1	5.4	5	5.7
Pvt Consm	5.9	2.1	8.5	8.7	9.2	7.1	7	8.1	5.5	5	5.5
Public Consm	2.6	3.4	8.9	3.8	9.6	10.4	14.3	7.8	5.1	5	7
Gross Fixed Capital Formn	13.6	20.7	16.2	13.8	16.2	3.5	6.8	7.5	5.5	4.5	6
Cons; Invst, Savings ** (%GDP)											
Consumption	75	70.1	69.2	68	67.2	68.6	69.4	68.4	67.7	67.1	66.2
Gross Capital Formation	26.9	32.8	34.7	35.7	38.1	34.3	36.1	35.8	35.5	35.4	35.1
Gross Domestic Savings	29.1	32.4	33.4	34.6	36.8	32	33.8	32.3	32	31.8	31.5
Monetary Indicators (% YoY)											
Money supply	13	14	15.9	20	22.1	20.5	19.2	16	16	16	17
Inflation – WPI (Avg)	5.5	6.5	3.7	6.5	4.8	8	3.6	9.6	8.8	7.5-8	7
CPI (Avg)	3.8	3.9	4.2	6.8	6.2	9.1	12.3	10.5	8.4	8	7
Bank credit growth	15.3	30.9	37	28.1	22.3	17.5	16.9	21.5	17	17	17
Deposit growth	17.5	13	24	23.8	22.4	19.9	17	16	16	16	16
Fiscal Indicators (% GDP)											
Centre's fiscal deficit)	-4.3	-3.9	-4	-3.3	-2.5	-6	-6.5	-4.9	-5.9	-5.9	-5.5
State fiscal deficit	-4.2	-3.3	-2.4	-1.8	-1.5	-2.4	-2.9	-2.7	-2.5	-2.5	-2.5
Combined deficit (Centre+State)	-8.2	-7.2	-6.5	-5.4	-4.1	-8.4	-9.7	-8.3	-8.4	-8.4	-8
Combined liabilities (dom+ext)	85.4	85.2	83	79.3	76.1	76.1	75	71.3	70.5	69.2	69.2
External Sector (% YoY)											
Exports (US$bn)	66.3	85.2	105.2	128.9	166.2	189	182.4	250.5	309.8	291.2	314.5
Imports (US$bn)	80	118.9	157.1	190.7	257.6	308.5	300.6	381.1	499.5	479.6	508.3
Trade deficit (US$bn)	-13.7	-33.7	-51.9	-61.8	-91.5	-119.5	-118.2	-130.6	-189.8	-188.4	-193.8
Invisibles (US$bn)	27.8	31.2	42	52.2	75.7	91.6	80	84.6	111.6	118.4	131.7
Current Account Deficit (US$bn)	14.1	-2.5	-9.9	-9.6	-15.7	-27.9	-38.2	-45.9	-78.2	-69.9	-62.1
% to GDP	2.3	-0.3	-1.2	-1	-1.3	-2.3	-2.8	-2.7	-4.2	-3.7	-2.8
Capital Account (US$bn)	16.7	28	25.5	45.2	106.6	6.8	51.6	62	67.8	71.6	65.6
% GDP	2.7	3.9	3.1	4.8	8.6	0.6	3.8	3.7	3.7	3.8	3
Forex Assets (excl gold) (US$bn)	106.1	135.1	145.1	191.9	299.1	241.6	252.8	273.7	260.9	262.5	266
Months of imports	15.9	13.6	11.1	12.1	13.9	9.4	10.1	8.6	6.3	6.6	6.3
External Debt (US$bn)	112.7	134	139.1	172.4	224.4	224.5	260.9	305.9	345.7	360.7	375.7
Short Term Debt (US$bn)	4.4	17.7	19.5	28.1	45.7	43.3	52.3	65	78.2	83.2	88.2
Exchange Rate											
US$/INR - annual avg	45.9	45	44.3	45.2	40.2	46	47.4	45.6	48.1	54	53.5
% depreciation	-5	-2	-1.6	2	-11.1	14.4	3	-3.8	5.5	12.3	-0.9

** At current prices.

Source: CSO,RBI, CEIC, Ministry of Finance, Citi Research estimates

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Citi is providing fairness opinion to Sesa Goa Limited on in the proposed merger of Sterlite Industries and other Vedanta Resources PLC group companies.

Citigroup Global Markets Inc. or its affiliates beneficially owns 1% or more of any class of common equity securities of Apollo Hospitals, AXIS Bank, Cairn India, HCL Technologies, Housing Development Finance Corp., Jaiprakash, Jet Airways, Phoenix Mills, United Phosphorus, Yes Bank. This position reflects information available as of the prior business day.

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of AXIS Bank, Bank of Baroda, Bharat Petroleum, Cairn India, HDFC Bank, Housing Development Finance Corp., ICICI Bank, Mahindra & Mahindra, Multi Commodity Exchange Ltd., Reliance Industries, State Bank of India, Tata Motors, Tata Consultancy Services, Yes Bank.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Apollo Hospitals, Adani Port And Special Economic Zone, AXIS Bank, Bank of Baroda, Bharat Petroleum, Cairn India, Coal India, Hindalco Industries, HDFC Bank, Hindustan Unilever, ICICI Bank, IDFC, Jet Airways, Jindal Steel and Power, Kotak Mahindra Bank, Larsen & Toubro, Lupin, Mahindra & Mahindra, Multi Commodity Exchange Ltd., Power Grid Corporation of India, Dr Reddy, Reliance Industries, State Bank of India, Sesa Goa, Tata Motors, Tata Consultancy Services, Tata Steel, Tata Power, United Phosphorus, Yes Bank.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from Bank of Baroda, Bharat Petroleum, Bharti Airtel, Cairn India, Coal India, Hindalco Industries, Infosys Ltd, Larsen & Toubro, LIC Housing Finance, Mahindra & Mahindra, Power Grid Corporation of India, Reliance Industries, State Bank of India, Sesa Goa.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Apollo Hospitals, Adani Port And Special Economic Zone, AXIS Bank, Bank of Baroda, Bharat Petroleum, Bharti Airtel, Cairn India, Coal India, Exide Industries, Grasim Industries, Hindalco Industries, HCL Technologies, HDFC Bank, Housing Development Finance Corp., Hindustan Unilever, ICICI Bank, IDEA Cellular, IDFC, Infosys Ltd, ITC, Jaiprakash, Jet Airways, Jindal Steel and Power, Kotak Mahindra Bank, Larsen & Toubro, LIC Housing Finance, Lupin, Mahindra & Mahindra, Multi Commodity Exchange Ltd., Maruti Suzuki India, Power Grid Corporation of India, Phoenix Mills, Ranbaxy, Dr Reddy, Reliance Industries, State Bank of India, Sesa Goa, Tata Motors, Tata Consultancy Services, Tata Steel, Tata Power, United Phosphorus, Yes Bank in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): Apollo Hospitals, Adani Port And Special Economic Zone, AXIS Bank, Bank of Baroda, Bharat Petroleum, Bharti Airtel, Cairn India, Coal India, Hindalco Industries, HDFC Bank, Hindustan Unilever, ICICI Bank, IDFC, Infosys Ltd, Jet Airways, Jindal Steel and Power, Kotak Mahindra Bank, Larsen & Toubro, LIC Housing Finance, Lupin, Mahindra & Mahindra, Multi Commodity Exchange Ltd., Power Grid Corporation of India, Dr Reddy, Reliance Industries, State Bank of India, Sesa Goa, Tata Motors, Tata Consultancy Services, Tata Steel, Tata Power, United Phosphorus, Yes Bank.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Apollo Hospitals, Adani Port And Special Economic Zone, AXIS Bank, Bank of Baroda, Bharat Petroleum, Bharti Airtel, Cairn India, Coal India, Exide Industries, Grasim Industries, Hindalco Industries, HCL Technologies, HDFC Bank, Housing Development Finance Corp., Hindustan Unilever, ICICI Bank, IDEA Cellular, IDFC, Infosys Ltd, ITC, Jet Airways, Jindal Steel and Power, Kotak Mahindra Bank, Larsen & Toubro, LIC Housing Finance, Lupin, Mahindra & Mahindra, Maruti Suzuki India, Power Grid Corporation of India, Phoenix Mills, Ranbaxy, Dr Reddy, Reliance Industries, State Bank of India, Sesa Goa, Tata Motors, Tata Consultancy Services, Tata Steel, Tata Power, United Phosphorus, Yes Bank.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Apollo Hospitals, Adani Port And Special Economic Zone, AXIS Bank, Bank of Baroda, Bharat Petroleum, Bharti Airtel, Cairn India, Coal India, Exide Industries, Grasim Industries, Hindalco Industries, HCL Technologies, HDFC Bank, Housing Development Finance Corp., Hindustan Unilever, ICICI Bank, IDEA Cellular, IDFC, Infosys Ltd, ITC, Jaiprakash, Jet Airways, Jindal Steel and Power, Kotak Mahindra Bank, Larsen & Toubro, LIC Housing Finance, Lupin, Mahindra & Mahindra, Multi Commodity Exchange Ltd., Maruti Suzuki India, Power Grid Corporation of India, Ranbaxy, Dr Reddy, Reliance Industries, State Bank of India, Sesa Goa, Tata Motors, Tata Consultancy Services, Tata Steel, Tata Power, United Phosphorus, Yes Bank.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

The Firm is a market maker in the publicly traded equity securities of Infosys Ltd.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Research Ratings Distribution

	12 Month Rating			***Relative Rating***		
Data current as of 5 Oct 2012	**Buy**	**Hold**	**Sell**	**Buy**	**Hold**	**Sell**
Citi Research Global Fundamental Coverage	51%	38%	11%	7%	85%	7%
% of companies in each rating category that are investment banking clients	50%	47%	45%	59%	47%	50%

Guide to Citi Research Fundamental Research Investment Ratings:
Citi Research stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.
Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.
Investment Ratings: Citi Research investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of Citi Research management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as

practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.
Relative three-month ratings: Citi Research may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings,** which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of the Citi Research expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were:Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were:Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

NON-US RESEARCH ANALYST DISCLOSURES
Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets India Private Limited	Aditya Narain, CFA; Prashant Nair, CFA; Deepal Delivala; Manish Chowdhary, CFA; Saurabh Handa; Gaurav Malhotra, CFA; Raashi Chopra, CFA; Jamshed Dadabhoy; Surendra Goyal, CFA; Venkatesh Balasubramaniam; Atul Tiwari, CFA

OTHER DISCLOSURES

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to AXIS Bank, Bank of Baroda, Bharat Petroleum, Hindalco Industries, HDFC Bank, Housing Development Finance Corp., IDFC, ITC, Kotak Mahindra Bank, LIC Housing Finance, Reliance Industries, State Bank of India, Tata Steel. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citiVelocity.com.)

Citigroup Global Markets Inc. or its affiliates beneficially owns 2% or more of any class of common equity securities of Cairn India, Jet Airways, United Phosphorus, Yes Bank.

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Research research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports

in addition to Citi Research research reports.
Important disclosure regarding the relationship between the companies that are the subject of this Citi Research research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures.
For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.
This Citi Research research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of Citi Research. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in **Australia** through Citi Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in **France** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment

Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold//Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in **Spain** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gasset, 4th Floor, Madrid, 28006, Spain. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority.

Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Research's Products can be found at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

With the exception of our product that is made available only to Qualified Institutional Buyers (QIBs) and other product that is made available through other distribution channels only to certain categories of clients to satisfy legal or regulatory requirements, Citi Research concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual Citi Research analysts may also opt to circulate research posted on such platforms to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels. Citi Research simultaneously distributes product that is limited to QIBs only through email distribution.

The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client’s individual preferences as to the frequency and manner of receiving communications from analysts, the client’s risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term,

short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints.
Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes Citi estimates, data from company reports and feeds from Reuters and Datastream.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST