





## AXIS INFRA INDEX (All)

297.60, down 4.1% q-o-q

### All increases to 297.6 in December; policy measures to determine future trends

#### UPDATE, MARCH 2012

The Axis Infra Index (All) had ticked up in December 2011 (to 297.6), after a downtrend over the past few months, and from the April level of 498.7 (Chart 1 below). In Wholesale Price Index (WPI) inflation adjusted terms, too, the Axis Infra Index rose by a similar magnitude in December (these trends are shown in Chart 1 below). The earlier downtrend had validated concerns about a slowdown in the momentum of infrastructure projects, which seems to have stabilised in December. However, the sustainability of the rise is uncertain, despite certain positive policy developments and increased fund flows to infrastructure sectors.

CHART 1: AXIS INFRA INDEX



In terms of the contribution of Index constituents of the All, the rise in the December Index reading was primarily driven by fund flows and some favourable policy initiatives (trends in the components of the Axis Infra Index are shown in Chart 2 below), despite a drop in project completions. Given the larger weight of fund flows in the All (see Annexure on the details of the All below), this has contributed to the uptick.

Bank credit to infrastructure sectors had increased by Rs 16,800 cr in December (accounting for the move up in the Fund Flows Index), from Rs 5,399 cr in November.

However, fund flows from non-bank sources to infra segment seem to have shrunk significantly. Equity and debt funds raising has been tepid, especially on the equity side where no funds were raised by infra companies in December.

The Projects Commencement Index fell in December due to lower number of projects achieving completion in value terms (moreover, September had a large bump up due to the Rs 16,000 cr completion of Delhi Airport Metro Express Pvt. Ltd's Airport Express Link Project). Some of the larger projects completed in December were Shree Cement's Beawar Merchant Thermal Power Plant (Rs 1,200 cr), Madurai-Arupukottai-Tuticorin Four-Laning Highway Project (Rs 910 cr), and Southern Railways' Trichy-Nagore-Karaikal GC Project (Rs 550 cr).

The infrastructure environment is reflected not just in terms of capacities and financeability but also the operations of infra segment. The Index uses indicators like power generation, ports throughput, cement dispatches, etc., as proxies for the output of the major infrastructure sectors. Falling output in these segments had earlier contributed to the falling Index, due to the operating environment indicated earlier, but there had been an improvement in many of these indicators in the last months of the All's coverage. Ports throughput, for instance has improved significantly in 2011 after having fallen in September. Electricity generation has increased quite strongly in the first nine months.

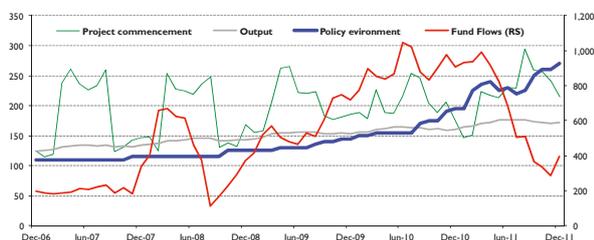
The policy environment had become challenging since the first half of 2010. In addition to project uncertainty, an



acceleration in the pace of monetary policy tightening has increased the cost of funds for infra projects, making commercial viability of new projects increasingly difficult. However, some policy decisions taken in the latter months of 2011 will help in partially mitigating these policy impediments.

A series of financial sector measures to enable greater fund flows into infrastructure have been put in place, implemented in successive RBI Policy Reviews, the FY12 Budget and by SEBI. These include tax incentives, widening the scope of refinancing, including through foreign debt, expanding the range of "collateral" qualifying as security for loans and relaxing the limits on inflows of portfolio funds into corporate bonds, particularly infrastructure. Guidelines for Infrastructure Debt Funds (IDFs) are expected to be operationalised shortly and will inter alia help mitigate any potential asset liability mismatch of bank lending and approaching sector exposure limits (particularly for the power sector), by tapping domestic and foreign long term funds (including insurance and pension funds).

CHART 2: MOVEMENTS IN THE COMPONENTS OF THE AXIS INFRA INDEX



With the RBI having taken the first steps in reversing its tight monetary policy, announcements of certain incremental policy measures in easing bottlenecks and incipient signs of evolution of a robust regulatory framework, we expect improvements in the policy environment. However, much of these developments is not captured in the December update of the All, having occurred in 2012, but suggests that the All will be supported by the capture of these measures in the policy component in the next update. Some of these developments include initiatives on coal supplies, an emerging regulatory framework for telecom spectrum auctions, etc.

Our next update will incorporate the measures anticipated in the FY13 Union Budget, including tax and financial rationalizations, changes in Public Private Partnership frameworks, credit enhancements, etc. The policy environment sub-index will also be influenced as increasing clarity is obtained on the actual implementation of these and earlier measures.

The Annexure below provides a brief summary of the methodology of the construction of the Axis Bank Index.



## ANNEXURE: METHODOLOGY OF THE AXIS INFRA INDEX (AII)

### COMPONENTS OF THE INDEX

The primary objective of the Index is to convey a sense of investment conditions in infra sectors and the ability of the segment to draw in capital funds. Therefore, the Index places inordinate weight on fund flows, which after all, is the ultimate outcome of all the underlying conditions, the efficiency in commissioning projects, the regulatory environment, tax incentives, etc.

- i. Output indicators: The intention is to capture primarily supply side performance of selected sectors. Data availability plays an important role in selection of the indicators. Some indicators also have a demand signal built in, e.g., base and peak load demand shortages in electricity.
- ii. Capex Completions / Project Commencements: This shows the value of infra projects getting completed / coming online.
- iii. Flow of funds: Financial closure is a signal of the commercial viability of the project, even with VGF. Fund flows have been separated into equity and debt components, to reflect the different risks associated with each:
  - a) Equity: Although project finance typically has a 4:1 debt - equity ratio, equity has been given a higher weight in view of the risk characteristic of equity and its role in pulling together debt funds.
  - b) Debt: Bank loans have been the largest source of debt funds for infra projects. However, data on bank credit flows into projects classified as infrastructure by the RBI is only available at quarterly intervals. We have allocated the quarterly disbursements equally across the three months.
  - c) Signals from Equity markets: Strong equity market performance is a likely precursor to higher equity market fund flows to the sector as it is an indicator of attractiveness of the sector. The performances of infrastructure sector equity stocks have also been incorporated through the CNX Infrastructure Index.
- iv. Regulatory and policy developments: Because of natural monopoly characteristics, infrastructure segments are amongst the most closely regulated. Due to the non-recourse nature of the project financing, the risks associated with changes in the legal, policy, tax and regulatory environment have a large role in determining commercial viability of projects. The Index incorporates these changes as ordinal indicators.

**April 2005 is chosen** as the base year, with the values of the Index components normalised to 100 for the month. This choice is consistent with many key macroeconomic variables using 2004-05 as their base year.

**Determining the weights of Index components:** The AII is constructed from the above five indicators using principal component analysis (PCA). Simulations show that the AII remains relatively robust to the relatively minor weighting changes.



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