



AXIS INFRA INDEX (AII)

260.50, down 5.4%

Infrastructure operating environment still stretched as of May'11;
Fund flows continue to slow



Indicative Image: NHAI's NH7 Hyderabad-Bangalore Corridor

UPDATE, JULY 2011

The Axis Infra Index has been volatile over the past few months. It fell to 260.5 in May, down from the April level of 275.4 (Chart 1 below). In inflation adjusted terms, too, the Axis Infra Index fell by a similar magnitude in May, due to the rising wholesale price index. Project completions had spiked in March, but this was a normal year-end effect. In the current cycle, the Index had peaked earlier in 2010 in July, before trending down.

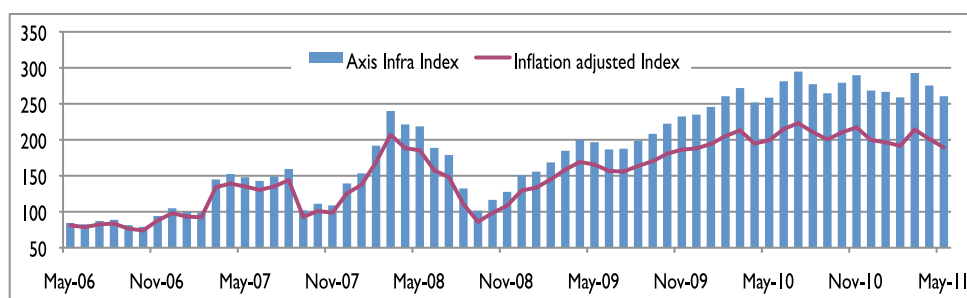
Fund flows from non-bank sources to infra segments seem to have shrunk significantly. Bank credit has been tepid as well, with bulk of the flows going to the power sector. Equity and debt placements have been minimal. Capex decisions seem to have been put on hold due to multiple reasons including policy and operational frictions and the increasing cost of funds.

The contribution of constituents of the AII to the fall in May was mixed (trends in the components of the Axis Infra Index are shown in Chart 2). One aspect of the trends in these charts should be emphasised. A significant share of the movements in the overall Index, as well as the financial flow sub-components have been influenced by the power sector. Adjusting for this concentration, the drop in the Index is much sharper in the last 8 – 9 months, during which period, for

example, bank credit flows to the power sector had been higher.

The investment environment has been adverse since the latter half of 2010, with

Chart 1: AXIS INFRA INDEX



many projects getting stuck due to delays in land acquisition, environment clearances and fuel linkages. The fall in the policy measures index was due to a higher than expected 50 bps hike in the Repo rate by RBI. Also, tighter provisioning norms came as a policy negative for the sector. Project commencements were flat in May. Some of the larger projects completed in May were Dhamra Port Phase I (Rs 3,239 Cr), Warora Power (Rs 2,416 Cr), Karad Windmills Power (Rs 1,800 Cr), Kurnool Wind Energy (Rs 600 Cr), Thrissur-Angamaly Highway (Rs 576 Cr), and Nagaon Bypass (Rs 300 Cr).

The infrastructure environment is reflected not just in terms of capacities and finance-ability but also the operations of existing infra segments. The Index uses power generation, ports throughput, cement dispatches and steel pipes production as proxies for the output of the major infrastructure segments. Trends in these segments had earlier contributed to the falling Index, due to the operating environment indicated earlier, but there had been a significant improvement in many of these indicators in the last months of the All's coverage. Ports throughput, for instance has

improved significantly in 2011, and electricity generation has increased quite strongly in the first five months.

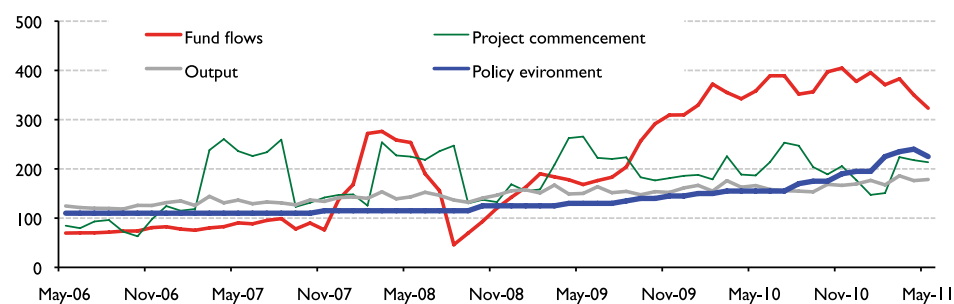
In terms of the policy environment, the latter half of FY11 had been disappointing. In addition to project uncertainty, acceleration in the pace of monetary policy tightening has increased the cost of funds for infra projects, making commercial viability of new projects increasingly difficult. Banks, now become the primary source of credit for infrastructure, are moving closer to prudential sector caps for the Power sector. The Government has announced measures to mitigate some of these constraints, but greater clarity is required of the policy environment for these funds to start flowing in. A series of



5,000 Crs is reportedly at an advanced stage, pending final clarity on regulations.

Initiatives have been taken to increase the pace of awarding contracts for road projects. Land acquisition procedures are getting increased

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

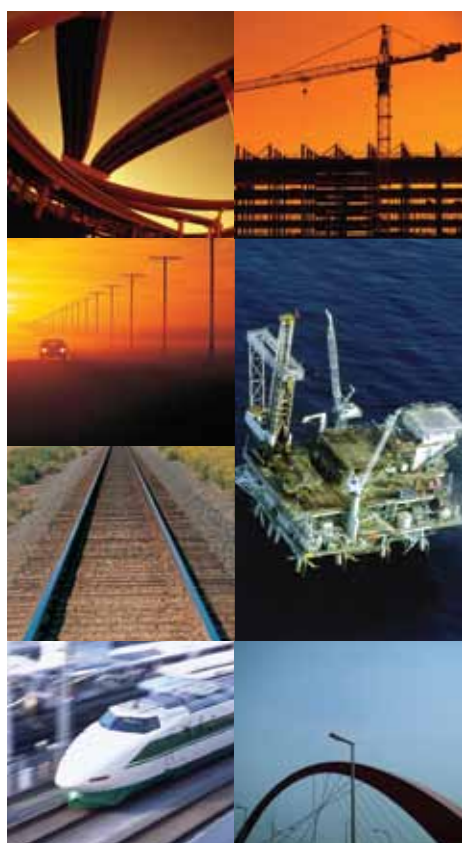


financial sector measures to enable greater fund flows into infrastructure have been put in place, particularly in the RBI Policy Review and the FY12 Budget. These include tax incentives, widening the scope of refinancing, including through foreign debt, expanding the range of 'collateral' qualifying as security for loans and relaxing the limits on inflows of portfolio funds into corporate bonds, particularly infrastructure.

Going forward, we expect improvements in the policy environment, with the central and state Governments implementing regulations designed to address and mitigate financing risks. Infrastructure Debt Funds (IDFs) are a step in the right direction, designed inter alia to mitigate the asset liability mismatch of bank lending and approaching exposure limits, by tapping domestic and foreign long term funds (including insurance and pension funds); guidelines have already been issued. India Infrastructure Company's (IIFCL) IDF with a corpus of Rs

attention, with greater clarity hopefully emerging on the envisaged role of the public authorities and private project developers. Reforms in the power distribution segment have been sought to reduce the increasing losses, which impact the PPAs power developers have to sign with state discoms. Regulators are enhancing the scope of open access for generating companies, and some efforts in increasing competition in large urban areas are underway. Efforts to incentivise tariff rationalisation and loss reduction in state discoms have started, although a planned interest subsidy for loans to SEBs, conditional on performance, might be problematic. The Power Ministry and Central Electricity Regulatory Authority are also rationalising generation and transmission tariffs, including hydro power generation and interstate transmission.

The Annexure on the following page provides a brief summary of the methodology of the construction of the Axis Infra 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 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 weighting changes.



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