Volume IV
MAY' 12

AXIS INFRA INDEX

INFRASTRUCTURE SECTOR UPDATE

AXIS INFRA INDEX (AII)

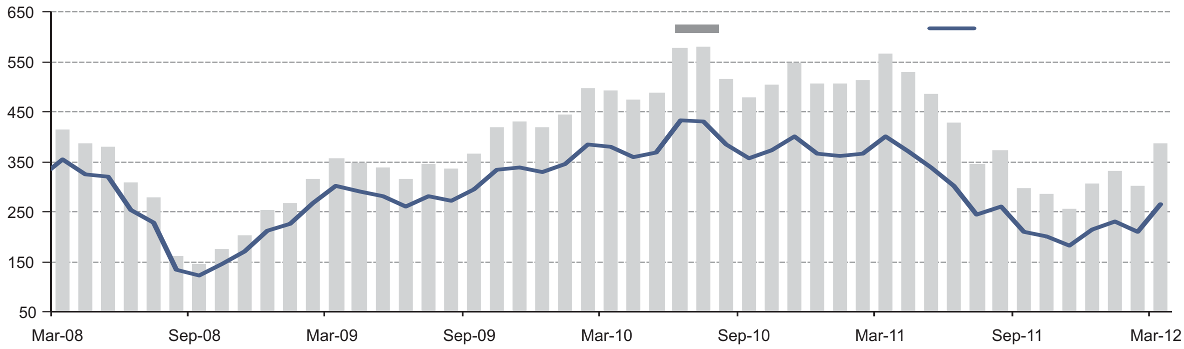
386.30, Up 20% average q-o-q

AII increases to 386.3 in March 2012; year-end project completions and funds flows contribute to rise

UPDATE, MARCH 2012

The Axis Infra Index (AII) had increased (to 386.3) in March 2012, after trending down over the first half of 2011 and troughing in November 2011. However, the AII was still down 32% yoy, indicating weak and stressed operating conditions over FY12. In Wholesale Price Index (WPI) inflation adjusted terms, too, the Axis Infra Index rose by a similar magnitude in March (these trends are shown in Chart 1 below). Part of this increase can be attributed to a seasonal jump in March, but there were other factors at play as well. On a qoq 3M average basis, the AII rose by 20% in March.

Chart 1: Axis Infra Index



In terms of the contribution of Index constituents of the AII, the rise in the March Index reading was primarily driven by funds flows and projects completions (trends in the components of the Axis Infra Index are shown in Chart 2 below). The larger weight of funds flows in the AII (see Annexure on the details of the AII below) has contributed to the uptick.

Funds Flows: Bank credit to infrastructure sectors had increased by Rs 12,671 cr in March (v/s Rs 16,800 cr in December and Rs 5,159 cr in February). As is year-ends, there was a surge in debt placements during the March quarter. Between Dec-Mar'12, private debt placements rose by Rs 14,612 cr (compared to Rs 5,013 cr during Sep-Dec'11 quarter and Rs 4,755 cr in the Mar'11 quarter). There was one IPO of Rs 125 cr from NBCC Ltd, as part of the Govt disinvestment program.

Project Commencements: The Projects Commencement Index rose significantly in March, by almost 28% qoq, with Rs 49,825 cr worth of projects completed/starting operations, but are probably reflective of a cumulative process over the previous few months. FY12 was the last year in the XI Five Year Plan, which may have led to a bunching of project completions and not indicative of underlying trends. Some of the larger projects completed in March were Sterlite's Jharsuguda Coal Fired Power Project Phase I (Rs 10,500 cr), Jhajjar Power Project (Rs 6,000 cr), NTPC's Simhadri Power Expansion Project Phase II (Rs 5,038 cr) and GAIL's Dadri-Bawana-Nangal Gas Pipeline Project (Rs 2,357 cr).

Output Indicators: Indicators like power generation, ports throughput, cement dispatches, etc., are used as proxies for the output of the major infrastructure sectors, reflecting operations in infra segments. As is the case each

Chart 2: Movements in the components of the Axis Infra Index

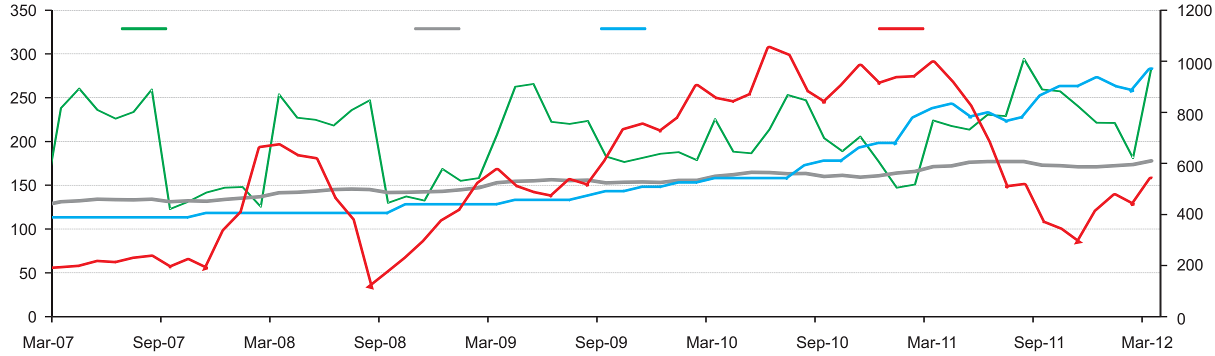


Table: Measurable components of Axis Infra Index

Item	Units	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
Fund Flow	**Rs Cr**	**20,814**	**4,074**	**5,341**	**21,059**	**19,404**
Debt	Rs Cr	16,079	4,074	5,281	21,059	19,279
Equity	Rs Cr	4,735	-	60	-	125
Project Completions / Commencements	**Rs Cr**	**29,883**	**12,315**	**19,586**	**6,770**	**49,825**
Output						
Gross Power Generation	Mn kwh	75,474	69,975	69,597	73,145	77,535
Total traffic (All major ports)	000 tonnes	53,700	46,818	42,382	47,507	49,145
All India Cement Despatches	Lakh tonnes	209	176	160	198	225
Steel Pipes & Tubes Production	000 tonnes	170	190	164	155	160

March, the "Output Indicators" index spiked higher. Main contributors were cement despatches, and port throughput. Though power generation rose sequentially, the rise was not significant as seen in prior year-ends.

Policy Environment: The RBI and Government have taken the first steps in reversing its tight monetary policy, announcements of certain incremental policy measures in easing bottlenecks (including initiatives on coal supplies), suggesting that the AII might be supported by the capture of these measures in the policy component in the next update as increasing clarity is obtained on the actual implementation of these and earlier measures. However, there still remain uncertainty in the regulatory framework, particularly for telecom spectrum auctions.

The Annexure in 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 funds 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. Funds 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.

Axis Infra Index Team Contact: **Mr Saugata Bhattacharya, Chief Economist, Axis Bank, +91 22 2425 2803**

AXIS BANK

Corporate Office: Axis House, Bombay Dyeing Mills Compound, P. B. Marg, Worli, Mumbai – 400 025.

Registered Office: "TRISHUL", Opp. Samartheswar Temple, Near Law Garden, Ilisbridge, Ahmedabad - 380 006.

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