



# Axis Infra Index (All)

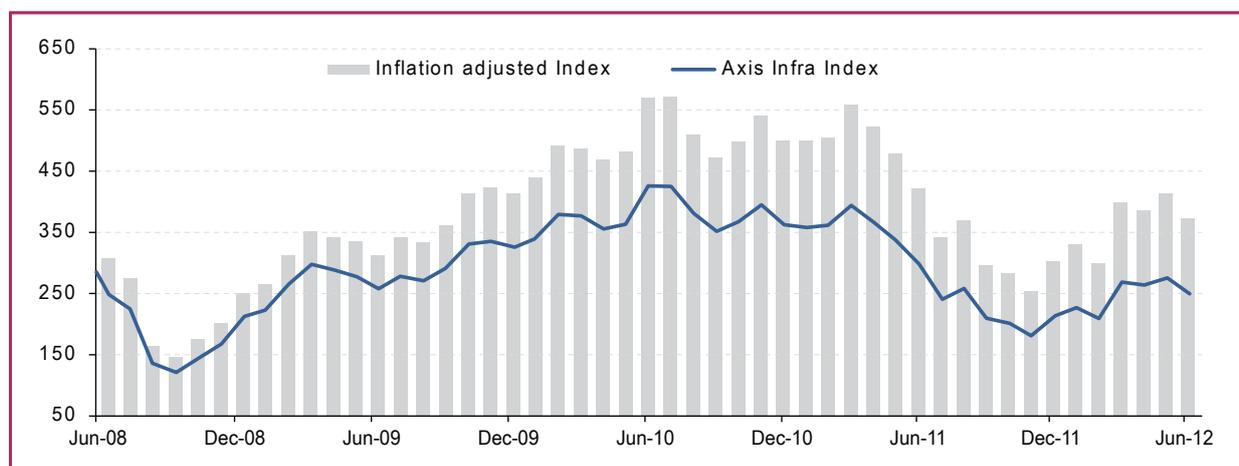
372, down 3.7% q-o-q

## All dips to 372 in June 2012; fall in funds flows contribute to the decline.

### UPDATE JUNE, 2012

The Axis Infra Index (All) had dipped to 372 in June, 2012 (from 386.3 in March), after trending up over the latter half of FY12. The weak and stressed operating conditions continue to weigh on the index, as the All declined 12% over June'11. In Wholesale Price Index (WPI) inflation adjusted terms too, the Axis Infra Index had declined since March (these trends are shown in Chart 1 below). Part of this decrease can be attributed to seasonal factors, with the index registering sequential declines over the quarter in the four of the last five years.

CHART 1: AXIS INFRA INDEX



In terms of the contribution of Index constituents of the All, the fall in the June Index reading was primarily driven by funds flows, with the projects completions and the output sub-index recording gains (trends in the components of the Axis Infra Index are shown in Chart 2 below). The larger weight of funds flows in the All (see Annexure on the details of the All below) has contributed to the downtick.

**Funds Flows:** Bank credit to infrastructure sectors had increased by only Rs 6,687 cr in Q1FY13 (v/s Rs 22,319 cr in Q4FY12 and Rs 31,809 cr in Q3FY12). As had been the case in FY12, the equity financing remained minimal over the quarter,

at Rs 55 cr, while debt placements were strong. Between March - June, 2012 private debt placements rose by Rs 11,869 cr (compared to Rs 14,612 cr during December - March, 2012 quarter and Rs 4,283 cr in the June, 2011 quarter).

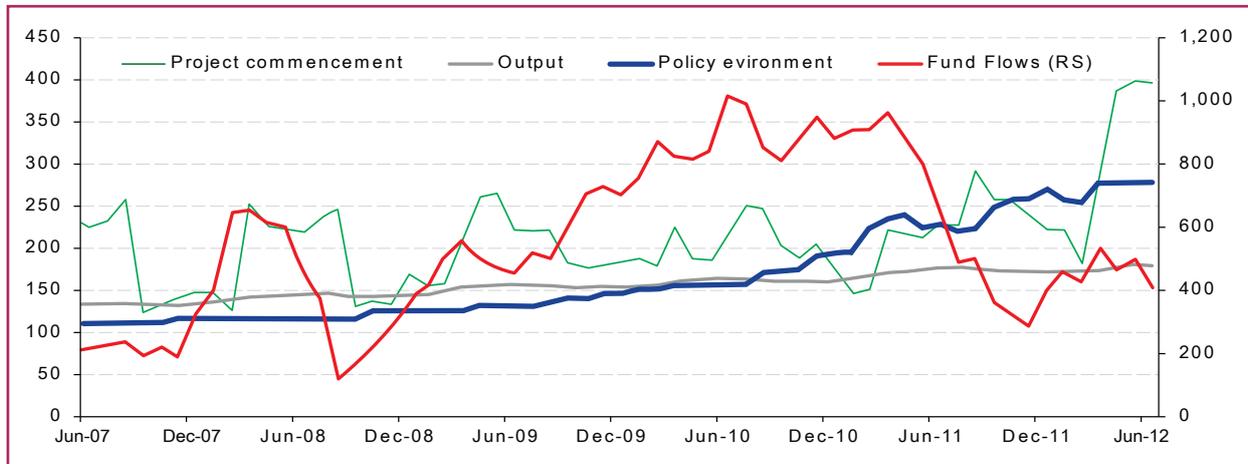
**Project Commencements:** The Projects Commencement Index rose significantly again in June, by 40.1% q-o-q, with Rs 40,328 cr worth of projects completed/starting operations. A record Rs 1,68,437 cr worth of projects were completed in FY12 (33.1% yoy), which was the last in the XI Five Year Plan. Some of the larger projects completed till June were NTPC's Sipat Thermal Power Project Stage I (Rs 8,323 cr), Essar Power's Salaya Thermal

Power Plant project (Rs 5,363 cr), Tamil Nadu Electricity Board's Mettur Thermal Power Project Phase 3 (Rs 3,550 cr), Uttar Pradesh Rajya Vidyut Utpadan Nigam's Harduaganj Thermal Power Project (Unit 8,9) (Rs 2,225 cr), Simhapuri Energy Pvt.'s Krishnapatnam Power Project Phase-I (Rs 2,633 cr), among others.

**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. The Output Indicators index had edged higher in June, but at the lowest pace on record (at: 2.6%/yoy, March: 3.8%). All the major sub-indices



**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	Jun-12
<b>Fund Flow</b>	<b>Rs Cr</b>	<b>54,338</b>	<b>30,570</b>	<b>19,642</b>	<b>36,823</b>	<b>39,156</b>	<b>18,611</b>
Debt	Rs Cr	45,235	30,353	19,582	36,828	39,031	18,556
Equity	Rs Cr	9,103	217	60	-	125	55
<b>Project Completions</b>	<b>Rs Cr</b>	<b>43,320</b>	<b>24,912</b>	<b>51,858</b>	<b>13,626</b>	<b>78,041</b>	<b>40,328</b>
<b>Output</b>							
Gross Power Generation	Mn kwh	212,652	216,004	215,063	217,908	222,691	230,554
Total traffic (All major ports)	'000 tonnes	151,796	146,517	133,084	138,369	141,704	138,515
Cement Despatches	Lakh tonnes	577	535	508	557	634	593
Steel Pipes & Tubes Production	'000 tonnes	493	537	506	489	499	507

increased, but the trend of continual growth decline since November, 2011 has persisted. Although power generation rose sequentially, the increase was again the lowest in one and half years.

**Policy Environment:** Much of the adverse policy developments had happened after June (and are not reflected as such in this All update), beginning with the electricity grid disturbances. The consequences are likely to be reflected in the forthcoming updates, as funds flows



## 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.

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