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BSE-30: 16,557

**Exploring the money trail.** Our analysis of exports from India and FII inflows into India in FY2011 shows wide gaps between reported official and bottom-up data. We attribute this to data limitations partly but highlight that a better understanding of the nature and type of exports and foreign inflows is critical (1) to fully appreciate the drivers of exports and implications for BOP, reserves and exchange rate and (2) to mitigate risks to the India economy from illicit 'foreign' flows, if any.

#### Difficult to explain surge in exports of engineering goods in FY2011 and the few prior years

Our study of exports data of major engineering companies (including automobiles and metals) shows that the increase in their exports does not reconcile with the steep increase in official exports data. In fact, the gap is quite substantial. Reported exports of engineering goods as per official data jumped 79% yoy (US\$30 bn) to US\$68 bn in FY2011. On the other hand, exports of the 'engineering' companies in the BSE-500 Index increased 11% yoy to ₹638 bn in FY2011 from ₹577 bn in FY2010. Our observation holds true for the past few years too.

#### Difficult to explain surge in FII inflows in FY2011

Our bottom-up study of flows of FII funds and ETFs does not reconcile with the reported US\$22 bn of FII inflows in FY2011. At best, we can account for US\$4.5 bn of FII flows based on data of listed FIIs, ETFs and estimates of EPFR Global. We admit that EPFR Global data does not capture all the sources of foreign institutional investment (sovereign and private equity funds, for example) that can invest in India. Nonetheless, the difference is stark.

#### A few examples of remarkable growth in exports; hard to reconcile with publicly available data

A study of official exports data shows remarkable growth in two areas in the broad category of engineering goods—(1) metal and metal products and (2) transport equipment. Exports of copper cathodes grew 444% to ₹317 bn in FY2011 and was the key driver of US\$17 bn growth in exports in metal products. Similarly, a huge jump in exports of cars, drilling rigs and unclassified ships accounted for the major portion of the US\$9 bn increase in exports of transport equipment. We didn't see the same growth in exports of large listed companies.

#### Looking for credible explanations; better and more disclosures imperative

The gap between the surge in exports as per official data and a more muted performance of the listed entities would suggest that (1) exports are largely being driven by smaller listed players or unlisted entities or (2) the quality of data is suspect. We would like to believe credible explanations exist for the aforementioned gaps with respect to (1) exports from India and (2) FII inflows into India.

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Kotak Institutional Equities  
Research

Important disclosures appear  
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The prices in this report are based on the market close of October 10, 2011.

## OVERVIEW: EXPLORING THE MONEY TRAIL

We find it difficult to reconcile the steep increase in (1) exports of engineering goods from India over the past few years and (2) FII inflows into India in the past two years (FY2010 and FY2011) with our bottom-up analysis of (1) exports of individual companies and (2) FII flows based on data of listed ETFs and non-ETF funds. We can attribute some part of these gaps to data limitations but the large difference between official data and our observations beg a better and more sophisticated explanation.

### Difficult to reconcile official exports and FII data with bottom-up observations

We find it difficult to reconcile the steep increase in (1) exports, particularly of engineering goods under the broader category of manufactured goods and (2) FII inflows as per official data with our bottom-up analysis of (1) exports of individual companies; we analyzed exports data of BSE-500 companies and (2) funds flow of listed ETFs and non-ETF funds ('long only' funds); we analyzed data for all the funds that may have invested as per EPFR database, the most comprehensive database available on global funds.

- ▶ **Exports data require more clarification.** Exhibit 1 shows that the steep increase in exports over the past few years has been driven by manufactured goods and in particular, engineering goods. Engineering goods exports accounted for 55% of incremental exports of manufactured goods in FY2006-11 and 33% of total incremental exports (merchandise trade only) over the same period. Our bottom-up analysis of exports of companies that can be classified as 'engineering' companies (based on similar definitions of the Ministry of Commerce and Industry) shows a more sedate performance. Exhibit 2 shows that exports of 'engineering' companies (including automobiles and metals) increased by ₹283 bn to ₹638 bn in FY2011 from ₹355 bn in FY2006.

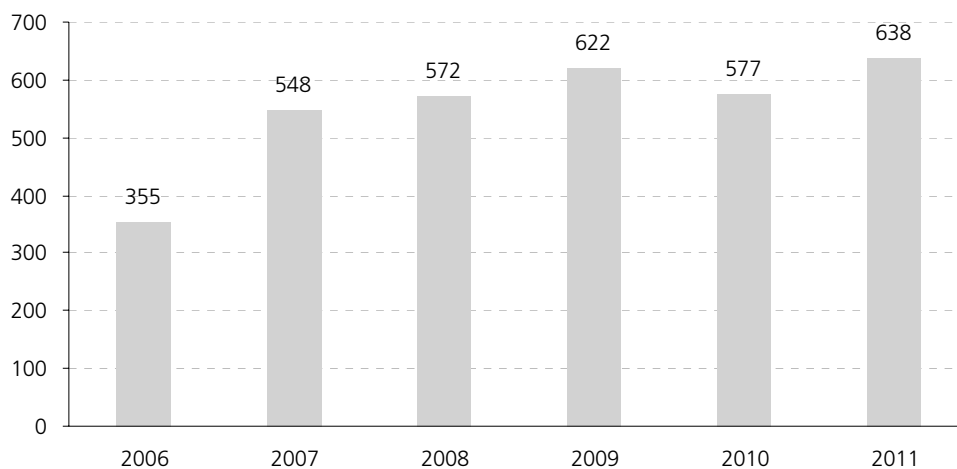
#### Exhibit 1: Manufactured goods, particularly engineering goods, have largely driven exports over the past few years, as per official data

Total exports, manufactured goods exports and engineering goods exports data, March fiscal year-ends, 2006-11 (US\$ bn)



Source: CMIE, Ministry of Commerce and Industry, Kotak Institutional Equities

**Exhibit 2: Exports of major engineering companies grew more modestly compared to official data**  
Export data of engineering companies in BSE-500 Index, March fiscal year-ends, 2006-11 (Rs bn)



Source: Capitaline, Kotak Institutional Equities

It is possible that the 'miracle' of India's engineering exports is being driven by smaller companies and unlisted entities operating 'outside' the purview of public attention that is usually lavished on listed entities. If it is the case, it is a cause for celebration for India's economy—strong growth in exports will result in rapid economic growth and provide investment opportunities for investors outside the over-researched top-200 companies. If not, India's GDP growth may be questionable and more importantly, it will raise questions about the nature of exports and source of related 'foreign' flows into India. Finally, the gap may be simply due to discrepancies between various data sources. However, this would require data gathering and collecting system to be strengthened significantly.

- ▶ **FII data requires more disclosures.** We can account for about US\$4.5 bn of FII flows based on available data out of the US\$22 bn of net FII inflows in FY2011. We concede that our analysis only includes data from listed funds and this would preclude several other funds that may have invested in India. Due to the difficulty in reconciling the large FII inflows as per official data with anecdotal evidence and data from other sources (EPFR database), we believe it would be in India's interests to understand the origin and sustainability of such inflows.

We note that FII flows are an important part of India's capital account and they can be quite volatile too (see Exhibit 3 that shows India's BOP for FY2007-12E). Also, the regulator and Government agencies can share more data with outsiders for better understanding and analysis of FII flows.

Exhibit 3: A wide current account deficit can put pressure on India's BoP  
 India's balance of payments, March fiscal year-ends, 2007-2012E (US\$ bn)

	2007	2008	2009	2010	2011	2012E		
						Oil@105	Oil@110	Oil@115
<b>Current account</b>	<b>(9.6)</b>	<b>(15.7)</b>	<b>(27.9)</b>	<b>(38.4)</b>	<b>(44.3)</b>	<b>(56.2)</b>	<b>(61.0)</b>	<b>(65.7)</b>
GDP	949	1,239	1,214	1,381	1,727	1,973	1,973	1,973
<b>CAD/GDP (%)</b>	<b>(1.0)</b>	<b>(1.3)</b>	<b>(2.3)</b>	<b>(2.8)</b>	<b>(2.6)</b>	<b>(2.8)</b>	<b>(3.1)</b>	<b>(3.3)</b>
Trade balance	(61.8)	(91.5)	(119.5)	(118.4)	(130.5)	(155.2)	(160.0)	(164.7)
<b>Trade balance/GDP (%)</b>	<b>(6.5)</b>	<b>(7.4)</b>	<b>(9.8)</b>	<b>(8.6)</b>	<b>(7.6)</b>	<b>(7.9)</b>	<b>(8.1)</b>	<b>(8.3)</b>
- Exports	129	166	189	182	250	317	319	321
- Imports	191	258	309	301	381	472	479	486
o/w Oil imports	58	80	94	87	106	141	148	155
o/w Non-oil imports	133	178	215	213	275	331	331	331
Invisibles (net)	52	76	92	80	86	99	99	99
- Services	29	39	54	36	48	57	57	57
o/w Software	29	37	44	48	57	65	65	65
o/w Non-software	0.4	1.9	10.2	(12.5)	(9.1)	(8.0)	(8.0)	(8.0)
- Transfers	30	42	45	52	53	55	55	55
- Income (net)	(7.3)	(5.1)	(7.1)	(8.0)	(14.9)	(13.0)	(13.0)	(13.0)
<b>Capital account</b>	<b>45.2</b>	<b>106.6</b>	<b>6.8</b>	<b>53.4</b>	<b>59.7</b>	<b>68.5</b>	<b>68.5</b>	<b>68.5</b>
% of GDP	4.8	8.6	0.6	3.9	3.5	3.5	3.5	3.5
Foreign investment	14.8	43.3	5.8	51.2	37.4	29.5	29.5	29.5
- FDI	7.7	15.9	19.8	18.8	7.1	20.0	20.0	20.0
- FII	3.2	20.8	(15.0)	29.0	28.2	8.0	8.0	8.0
- ADRs/GDRs	3.8	6.6	1.2	3.3	2.0	1.5	1.5	1.5
Banking capital	1.9	11.8	(3.2)	2.1	5.0	16.0	16.0	16.0
- NRI deposits	4.3	0.2	4.3	2.9	3.2	3.0	3.0	3.0
Short-term credit	6.6	15.9	(2.0)	7.6	11.0	13.0	13.0	13.0
ECBs	16.1	22.6	7.9	2.8	11.9	15.0	15.0	15.0
External assistance	1.8	2.1	2.4	2.9	4.9	3.0	3.0	3.0
Other capital account items	4.0	10.8	(4.1)	(13.1)	(10.5)	(8.0)	(8.0)	(8.0)
E&O	1.0	1.3	1.1	(1.6)	(2.4)	(3.0)	(3.0)	(3.0)
<b>Overall balance</b>	<b>36.6</b>	<b>92.2</b>	<b>(20.1)</b>	<b>13.4</b>	<b>13.1</b>	<b>9.3</b>	<b>4.5</b>	<b>(0.2)</b>
<b>Memo items:</b>								
Average exchange rate (US\$/Rs)	45.24	40.26	45.99	47.41	45.57	46.30	46.30	46.30
Average Indian crude (US\$/bbl)	62.1	78.2	84.0	70.0	85.1	105.0	110.0	115.0

Source: RBI, Kotak Institutional Equities estimates

### Better and more disclosures imperative

We assume that there are credible explanations for the gaps in our understanding of (1) large exports from India and (2) large FII flows into India. This is important since they result in large inflow of foreign funds into India. Thus, we would welcome more debate on the aforementioned issues and more disclosures from Government agencies that could explain the gap in our understanding of the top-down official data and our bottom-up analysis.

The sustainability of exports and FII flows could be in question if there are no credible explanations for the aforementioned gaps between reported official and bottom-up data. Any recasting of numbers could have serious implications for (1) India's economic growth; exports have been a big driver of real GDP growth over the past few years, (2) inflation; large illicit flows, if any, may have pushed up inflation and partly countered the RBI's efforts in curbing inflation through an aggressive monetary policy, (3) foreign currency reserves and (4) BOP and exchange rate.

We are hopeful that official data and/or some other factors will provide credible explanations to fill in the gaps in our understanding regarding the nature and composition of India's exports and FII inflows. We will continue to look for possible explanations for the observed discrepancies and welcome any perspective on the same.

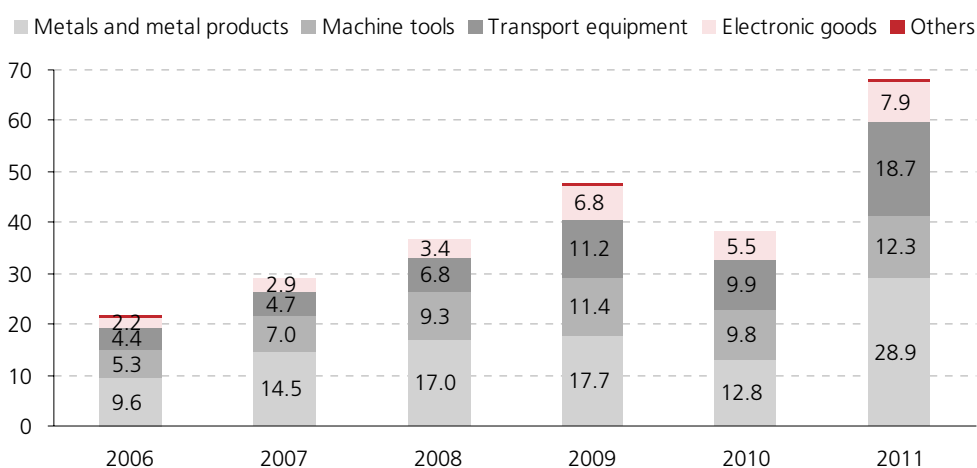
## EXPORTS: ENGINEERING MIRACLE OR 'FINANCIAL' ENGINEERING MIRACLE?

Our analysis of exports of major listed engineering companies does not show a big increase in FY2011 or in the past few years. This is in sharp contrast with official exports data of engineering goods that shows an almost 80% yoy increase in FY2011 and CAGR of 26% in FY2006-11. Data limitations may be a reason for the gap between our observations and reported data. India's export miracle is either (1) being driven by smaller, unknown or unlisted entities (which throws up investment opportunities), or (2) is simply being overstated.

### Official data shows a big increase in exports of engineering goods

Exhibit 4 shows that exports of engineering goods (broken down by segments as defined by the Ministry of Commerce and Industry) have grown quite sharply over the past few years. Exports have increased to US\$68 bn in FY2011 from US\$22 bn in FY2006, a three-fold rise over the past five years. Exports climbed rapidly in FY2006-09 to US\$47.5 bn in FY2009 before declining to US\$38 bn in FY2010. We can attribute the slowdown in FY2010 to the global financial crisis starting from 2HFY09.

**Exhibit 4: Exports of engineering goods have grown quite sharply over the past few years**  
Breakdown of exports of engineering goods by major categories, March fiscal year-ends, 2006-11 (US\$ bn)



Source: CMIE, Kotak Institutional Equities

We note that other items in the broad category of manufactured items have not shown the same kind of growth demonstrated by engineering goods. Exhibit 5 shows that exports of manufactured goods increased to US\$158 bn in FY2011 from US\$115 bn in FY2010 while exports of engineering goods increased to US\$68 bn in FY2011 from US\$38 bn in FY2010. Thus, exports of engineering goods contributed to a massive 70% share of incremental exports of manufactured goods. In fact, we note that exports of manufactured products excluding engineering goods increased by US\$15 bn in FY2011 only with higher exports of petroleum products at US\$14 bn accounting for almost the entire increase in exports of manufactured goods excluding engineering goods.

In particular, we highlight two egregious instances that we noticed while analyzing official data and trying to reconcile it with our bottom-up analysis of data on exports given in the annual reports of companies in the BSE-500 Index. These two segments accounted for about 70% of the total exports of engineering goods in FY2011 and more than 80% of the incremental exports of engineering goods in FY2011. We would clarify that the exports data in the annual reports does not include exports from subsidiaries (if any), although in most cases we note that the standalone or parent company accounts for the bulk of the company's revenues and exports.

**Exhibit 5: Exports of engineering goods contributed a massive 55% share of incremental exports of manufactured goods in FY2006-11**

Manufactured goods, engineering goods and non-engineering goods exports, March fiscal year-ends, 2006-11 (US\$ bn)



Source: CMIE, Kotak Institutional Equities

- ▶ **Steep increase in exports of metal and metal products.** As per official data of exports available from the Ministry of Commerce and Industry, exports of metals and metal products (ferro alloys, non-ferrous, ferrous and value-added metal products) increased to US\$29 bn in FY2011 from US\$13 bn in FY2010, an increase of US\$16 bn. In contrast, the annual reports of 22 listed companies in the BSE-500 shows an increase in exports of ₹37 bn only to ₹340 bn in FY2011 from ₹303 bn in FY2010. This would suggest that India's exports of metals are being driven by smaller unlisted entities, which seems quite counterintuitive to us.

A further analysis of official exports data shows quite remarkable growth in two areas.

- **Copper.** Exports of "copper articles" increased 4.3X to ₹367 bn in FY2011 from ₹85 bn in FY2010; in particular, "cathodes and sections of cathodes of refined copper" increased 5.4X to ₹317 bn from ₹58 bn in FY2010 with the bulk of the incremental exports going to China (10X versus FY2010 figure of ₹24 bn). We are quite surprised by this since India is not a large producer of copper (total refined copper production in FY2011 was around 650,000 tons only) and imports of copper ore or of copper concentrates did not show a major increase in FY2011; imports of copper (all types) increased by 54% to ₹85 bn and imports of copper cathodes declined by 15% to ₹13 bn.
- **Iron and steel.** Exports of iron and steel increased 102% to ₹420 bn and of "articles of iron and steel" increased 80% to ₹348 bn in FY2011. A further study of the sub-segments shows that exports of ferro alloys increased by 224% to ₹134 bn, accounting for 42% of the increase (₹217 bn) in exports of iron and steel in FY2011. Exports of 16 large listed steel companies in India increased by ₹7 bn only in FY2011.
- ▶ **Steep increase in exports of transport equipment.** As per official data of exports available from the Ministry of Commerce and Industry, exports of transport equipment increased to US\$19 bn in FY2011 from US\$10 bn in FY2010, an increase of US\$9 bn. Against this, the annual reports of nine large automobile companies in the BSE-500 show an increase in exports of ₹28 bn only to ₹149 bn in FY2011 from ₹121 bn in FY2010. Even expanding the definition of transport equipment to include auto ancillaries would add only another ₹5 bn to the incremental exports in FY2011.

This would imply that several other entities are exporting transport equipment from India. We look at various sub-segments for a credible explanation.

- **Passenger cars.** As per official data, exports of passenger cars increased by ₹100 bn in FY2011 to ₹249 bn compared to ₹149 bn in FY2010. We can think of Hyundai Motors among the larger unlisted companies that may have contributed to the sharp increase in exports. However, Hyundai's exports volumes declined in FY2011 to 233,058 units from 285,534 units in FY2010. We note that Maruti's exports declined by ₹10 bn in FY2011 versus FY2010 levels due to a withdrawal of scrappage incentives introduced in Western Europe in CY2008-09 that boosted exports for small cars from India.
- **Airplanes, railways and ships.** India is unlikely to be a big exporter of airplanes (no commercial production), railways (unlikely to be a big amount given India imports advanced locomotives and coaches) and ships (India produces medium-tonnage ships only and currently ship manufacturing is a small industry in India). However, as per official data exports of "ships, boats and floating structures" increased to ₹242 bn in FY2011 from ₹124 bn in FY2010. A further study of data does not clarify the nature of exports given (1) exports of floating/submersible drilling/production platforms increased 8.4X to ₹49 bn in FY2011 from ₹5.8 bn in FY2010 and (2) exports of "other under heading 8905" increased 2.8X to ₹102 bn in FY2011 from ₹36 bn in FY2010.

We note that exports from the listed ship builders (ABG Shipyard and Bharati Shipyard) increased to ₹9 bn in FY2011 from ₹2.9 bn in FY2010. It is possible that the customs data includes oil rigs being sent out from India to another country under a re-lease agreement. We cannot offer any other plausible explanation for the sharp increase in exports of rigs etc. since India is not a large producer of oil rigs and platforms.

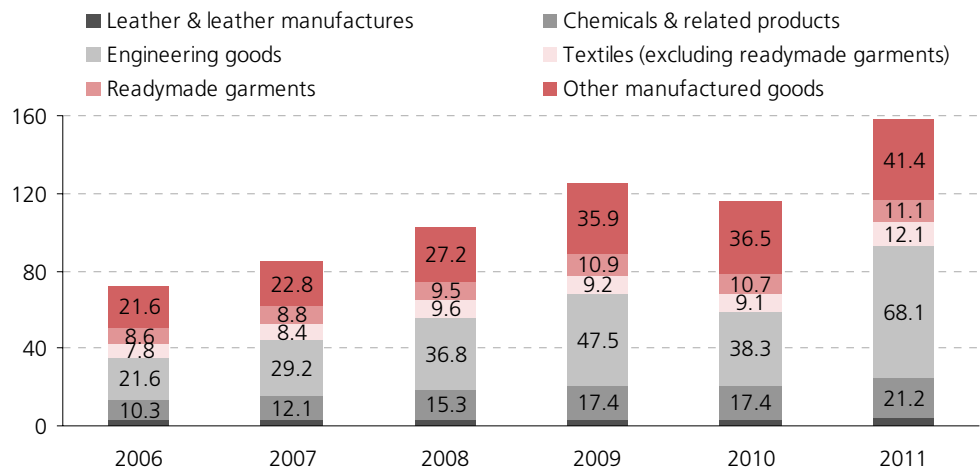
**We observe the same trend looking at the data of a longer period (FY2006-11) with exports of engineering goods accounting for a large share of incremental exports of manufactured goods.** Exports of manufactured goods excluding engineering goods increased more sedately to US\$90 bn in FY2011 from US\$51 bn in FY2006, a somewhat modest CAGR of 12%. In contrast, engineering exports have grown from US\$22 bn to US\$68 bn at a CAGR of 26% over the same period. In other words, exports of engineering goods accounted for a disproportionate 55% share of exports of manufactured goods over the same period.

Exhibit 6 breaks down exports of manufactured goods by major categories for FY2006-11. As can be seen, exports of India's traditional manufactured goods such as chemical products, gems and jewelry and textiles grew at a moderate pace in contrast to the scorching pace of engineering goods. We can attribute the sharp increase in exports of fuel products (CAGR of 29% in FY2006-11) to (1) a steep increase in global crude oil and product prices (see Exhibit 7 that shows global prices of crude oil and major products) and (2) a sharp increase in exports of petroleum products from India due to start of new refining capacities (see Exhibit 8 that shows the growth in export volumes of major petroleum products in FY2006-11).



**Exhibit 6: Exports of traditional manufactured products have increased moderately versus exports of engineering goods**

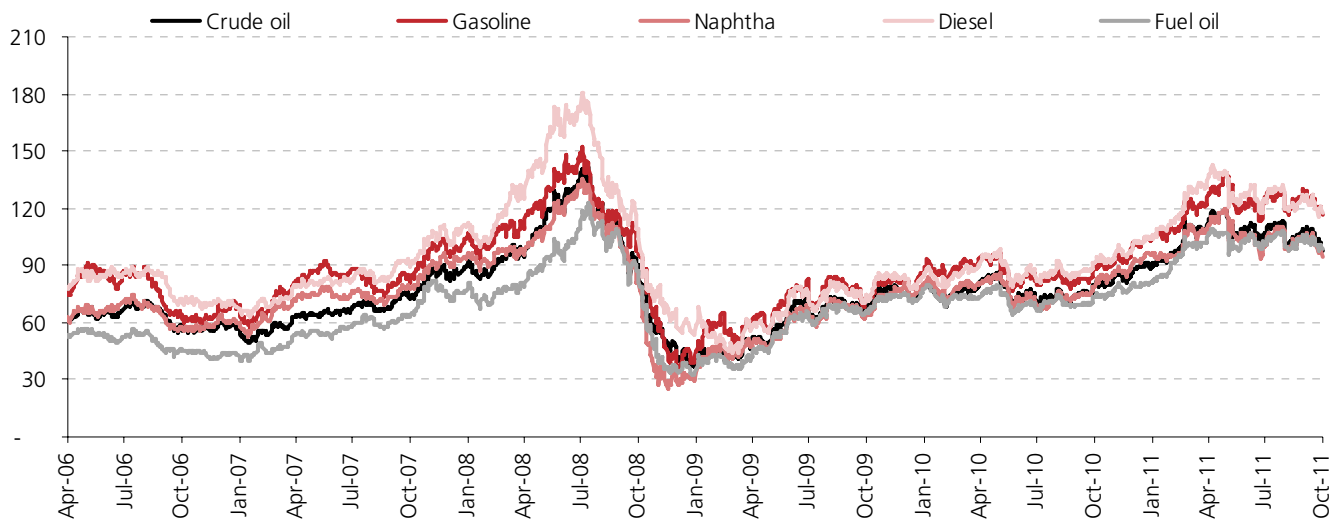
Breakdown of exports of manufactured goods by major categories, March fiscal year-ends, 2006-11 (US\$ bn)



Source: CMIE, Kotak Institutional Equities

**Exhibit 7: A steep increase in product prices drove value of India's exports of petroleum products in FY2011**

Global prices for crude oil and petroleum products, April 2006-October 2011 (US\$/bbl)



Source: Bloomberg, Kotak Institutional Equities

**Exhibit 8: Exports of petroleum products has increased at a CAGR of 19% over the past five years**  
Exports of petroleum products, March fiscal year-ends, 2006-11 ('000 tons)

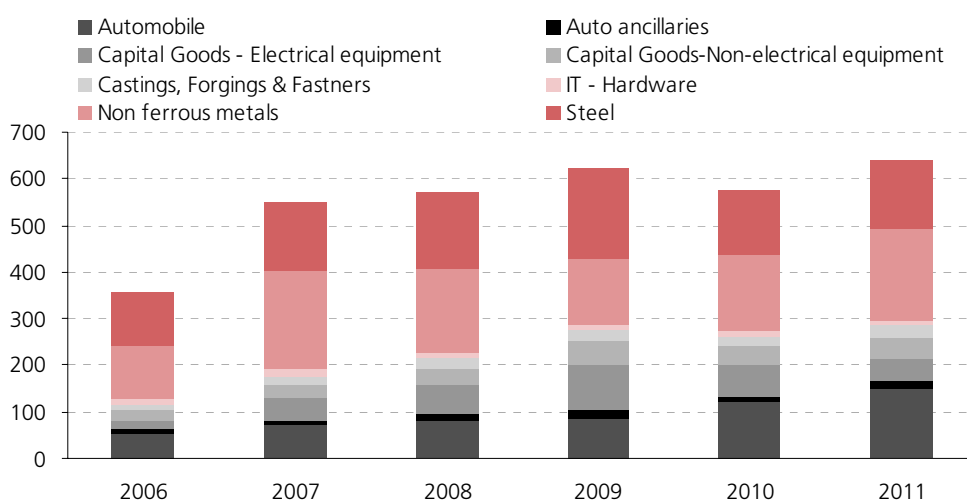
	2006	2007	2008	2009	2010	2011
ATF	2,828	3,652	4,486	3,701	4,588	4,344
Bitumen	33	66	43	45	39	15
Diesel	8,504	11,369	14,308	14,693	18,419	19,794
Fuel oil	1,815	3,759	4,718	6,201	5,173	6,476
Gasoline	2,417	3,615	4,258	5,433	9,762	13,419
Kerosene	121	150	137	77	46	10
LDO	—	—	—	—	41	126
LPG	53	112	99	109	131	52
Lubes	291	509	311	140	24	6
Naphtha	5,066	8,411	9,297	7,601	9,911	9,050
Others	2,333	1,980	3,122	902	2,839	3,056
<b>Total exports</b>	<b>23,461</b>	<b>33,623</b>	<b>40,779</b>	<b>38,902</b>	<b>50,973</b>	<b>56,348</b>

Source: Ministry of Petroleum and Natural Gas, Kotak Institutional Equities

### Bottom-up analysis shows a very different picture

Exhibit 9 shows that exports from companies in the BSE-500 Index that can be classified as engineering companies grew more modestly compared to the official exports data. For the purpose of our exercise, we treat as engineering goods (1) automobiles, (2) automobile ancillaries, (3) capital goods (electrical equipment), (4) capital goods (non-electrical equipment), (5) castings, forgings and fasteners, (6) IT hardware and (7) metals (ferrous as well as non-ferrous). Our list may not exactly mirror the list of sub-sectors covered in the official definition of engineering goods.

**Exhibit 9: Exports of 'engineering' companies grew more modestly compared to official data**  
Exports data of engineering companies in BSE-500 Index, March fiscal year-ends, 2006-11 (Rs bn)



Source: Capitaline, Kotak Institutional Equities

Nonetheless, the difference between our observation of exports of 'engineering' goods and the official data is quite stark. We are unable to explain the large difference since we have covered the major engineering companies in our exercise. Exhibits 10-12 give further breakdown of exports of each of the aforementioned sub-sectors by companies; exports data of companies is available in their annual reports. As can be seen, the BSE-500 Index includes most of the larger companies in the automobiles, capital goods and metals sectors.

Exhibit 10: Breakdown of exports of major auto companies in BSE-500 Index, March fiscal year-ends, 2006-11 (Rs bn)

Company	Sector	2006	2007	2008	2009	2010	2011
Bajaj Auto	Automobile	9	17	20	26	32	46
Maruti Suzuki	Automobile	6	6	7	15	45	35
Tata Motors	Automobile	22	27	28	22	19	33
Ashok Leyland	Automobile	5	6	8	9	6	11
M & M	Automobile	5	6	8	6	7	11
TVS Motors	Automobile	2	3	3	5	5	9
Bosch	Auto ancillaries	4	6	7	7	6	8
Hero Motocorp	Automobile	3	3	2	2	3	4
Motherson Sumi	Auto ancillaries	1	2	2	2	2	3
SKF India	Auto ancillaries	0	1	1	1	1	2
Exide Industries	Auto ancillaries	1	1	1	1	1	1
Timken India	Auto ancillaries	1	1	1	2	1	1
Fag Bearings	Auto ancillaries	1	1	1	1	1	1
Amara Raja Battery	Auto ancillaries	0	0	0	0	1	1
Escorts	Automobile	1	2	2	1	2	1
Eicher Motors	Automobile	1	2	2	1	0	0
<b>Total</b>		<b>63</b>	<b>83</b>	<b>95</b>	<b>102</b>	<b>133</b>	<b>167</b>

Source: Capitaline, Kotak Institutional Equities

Exhibit 11: Breakdown of exports of capital goods companies in BSE-500 Index, March fiscal year-ends, 2006-11 (Rs bn)

Company	Sector	2006	2007	2008	2009	2010	2011
Cummins India	Capital goods - Non-electrical equipment	5	6	7	13	5	11
Crompton Greaves	Capital goods - Electrical equipment	4	6	7	10	10	8
HEG	Capital goods - Non-electrical equipment	3	5	7	8	8	8
B H E L	Capital goods - Electrical equipment	6	9	8	16	12	8
Thermax	Capital goods - Non-electrical equipment	2	3	3	6	7	6
Kalpataru Power	Capital goods - Electrical equipment	2	3	4	3	9	6
Graphite India	Capital goods - Non-electrical equipment	3	5	6	6	5	6
Areva T&D	Capital goods - Electrical equipment	0	1	2	4	8	5
A B B	Capital goods - Electrical equipment	2	4	3	5	5	5
K E C International	Capital goods - Electrical equipment	2	4	5	7	5	4
Jyoti Structures	Capital goods - Electrical equipment	—	1	3	7	4	3
Alstom Projects	Capital goods - Electrical equipment	0	2	1	5	5	3
Alfa Laval (I)	Capital goods - Non-electrical equipment	2	2	3	3	2	3
Carborundum	Capital goods - Non-electrical equipment	0	1	1	1	1	2
B E M L	Capital goods - Non-electrical equipment	0	1	0	3	1	2
Havells India	Capital goods - Electrical equipment	1	1	1	2	2	2
Praj Industries	Capital goods - Non-electrical equipment	1	1	3	3	2	2
Sujana Towers	Capital goods - Electrical equipment	—	—	—	1	0	2
Kirloskar Brothers	Capital goods - Non-electrical equipment	1	2	1	2	2	2
Kirloskar Oil	Capital goods - Non-electrical equipment	—	—	—	—	1	1
Elgi Equipment	Capital goods - Non-electrical equipment	1	1	1	1	1	1
Ingersoll-Rand	Capital goods - Non-electrical equipment	1	1	1	1	1	1
Walchand Industries	Capital goods - Non-electrical equipment	0	1	1	1	1	1
Elecon Engineering	Capital goods - Non-electrical equipment	0	0	0	0	1	1
Suzlon Energy	Capital goods - Electrical equipment	2	18	28	40	10	0
<b>Total</b>		<b>39</b>	<b>76</b>	<b>100</b>	<b>149</b>	<b>108</b>	<b>91</b>

Source: Capitaline, Kotak Institutional Equities

Exhibit 12: Breakdown of exports of metals companies in BSE-500 Index, March fiscal year-ends, 2006-11 (Rs bn)

Company	Sector	2006	2007	2008	2009	2010	2011
Hindalco Industries	Non-ferrous metals	36	70	64	51	53	71
Sterlite Industries	Non-ferrous metals	42	72	70	46	59	63
Hindustan Zinc	Non-ferrous metals	9	42	23	20	28	37
JSW Steel	Steel	20	33	32	41	27	33
Tata Steel	Steel	21	20	21	33	20	23
National Aluminium	Non-ferrous metals	23	26	21	21	21	21
Jindal Saw	Steel	6	10	23	23	26	16
Uttam Galva	Steel	10	14	15	22	14	16
JSL Stainless	Steel	11	23	17	12	11	14
Bhushan Steel	Steel	10	15	13	15	12	12
Jindal Steel	Steel	4	6	7	10	4	11
SAIL	Steel	11	12	12	8	8	10
JSW ISPAT	Steel	17	8	15	9	7	4
Usha Martin	Steel	3	4	4	6	5	4
Tinplate Company	Non-ferrous metals	1	2	2	3	3	3
Adhunik Metal	Steel	—	0	1	1	0	1
Hindustan Copper	Non-ferrous metals	0	1	1	1	0	1
Maharashtra Seamless	Steel	—	—	5	9	3	1
<b>Total</b>		<b>226</b>	<b>357</b>	<b>344</b>	<b>333</b>	<b>303</b>	<b>340</b>

Source: Capitaline, Kotak Institutional Equities

### Large discrepancy and no credible explanation

We discuss a few plausible reasons for the difference below.

- ▶ **Increased exports from smaller listed and large unlisted companies.** We concede that our list includes the top companies in the BSE-500 Index and does not include several smaller companies or large unlisted companies that are wholly-owned subsidiaries of large multinational companies (such as Hyundai Motor India, LG Electronics India and Nokia India). A striking example in the latter category is of Nokia India, which has seen a steep ramp-up in production of mobile handsets over the past five years. It had produced 500 mn mobile phones from its manufacturing facility in Chennai by May 2011, five years after start of operations. A rough calculation based on data available in press releases and Nokia's 2010 Form 20-F indicates exports of about US\$2.5 bn in FY2011 from India.
- ▶ **Data limitations.** We note that collection and reporting of trade data (exports and imports) is not very robust in India. This may account for some of the discrepancies between our observations and official data. However, our bottom-up analysis is strengthened by the fact that it is based on exports data reported by the companies in their annual reports. We tried to reconcile the exports data with data from ports; however, the data is of limited use since it gives only combined volume data of exports and imports of major commodities. We did not observe a steep increase in the volumes of ports (see Exhibit 13) over the past few years.

**Exhibit 13: Export and import volumes at major ports have grown at a moderate pace in past few years**

Commodity-wise annual cargo traffic at major ports, March fiscal year-ends, 2004-11 (MMT)

	2004	2005	2006	2007	2008	2009	2010	2011
<b>Major ports</b>								
POL	122	126	142	154	169	176	175	180
Iron ore	59	76	79	81	92	94	100	87
Fertilizers	8	10	12	14	17	18	18	20
Coal	49	53	59	60	65	71	72	73
Container	51	55	62	79	92	93	101	114
Other cargo	56	64	69	81	90	78	95	95
<b>Major ports total</b>	<b>345</b>	<b>384</b>	<b>424</b>	<b>469</b>	<b>524</b>	<b>530</b>	<b>561</b>	<b>570</b>

Source: Indian Port Association, Crisil Research, Kotak Institutional Equities

- ▶ **Over-invoicing of exports as a way to bring in funds from overseas accounts.** Given limited available data, we are cautious about drawing definitive conclusions. We are nevertheless aware of several well-documented reports of large unaccounted funds held by resident Indians in overseas accounts. Some reports have alleged that some individuals may have been compelled to bring back funds through the 'official' route by simply over-invoicing exports or even resorting to fraudulent exports thanks to (1) increased international scrutiny of unaccounted funds in banks accounts in Switzerland and other financial centers and (2) heightened debate in India about action against unaccounted overseas wealth.

## FII FLOWS: WE WOULD LIKE TO KNOW YOU BETTER

Our analysis of flows of the listed FII funds and ETFs does not reconcile with the large FII inflows in FY2011 as per reported official data. We admit to limitations of our analysis as our universe of funds and ETFs (based on EPFR database) may not cover all the funds investing in India. Also, FII investments would include sovereign and PE investments made by sovereign and PE funds registered with SEBI as FIIs. In our view, it would be helpful if the stock market regulator were to provide further breakdown of the FII flows into India periodically (by type of funds). We view this as important given the highly volatile nature of FII flows and omnibus nature of FIIs and P-notes.

### Large FII inflows in FY2011 as per official data

Exhibit 14 shows that the total FII net inflows in FY2011 were US\$22 bn. We note that 60% of the net inflows came in the July-November 2010 period following increased expectations of likely implementation of the QE2 program in the US. Not surprisingly, the Indian market performed well in this period as can be seen in Exhibit 15 that tracks returns in the BSE-30 Index with 'net' institutional investment in the market. We subtract investment in primary issuances (IPOs, FPOs, QIPs and promoter stake sales) from reported flows to arrive at the 'net' figure; we assume the bulk of the investment in IPOs/FPOs is by institutional investors. In our view, this has more relevance for the secondary market.

Exhibit 14: FIIs invested around US\$22 bn in FY2011 in India  
FIIs investment in cash and F&O segment, April 2010-March 2011 (US\$ mn)

	Cash	F&O		Combined Cash + F&O
		Index futures	Stock futures	
Apr-10	2,220	(1,048)	33	1,205
May-10	(1,989)	(721)	1,162	(1,548)
Jun-10	2,099	359	(272)	2,186
Jul-10	3,777	(55)	(56)	3,666
Aug-10	2,404	(646)	(259)	1,499
Sep-10	6,373	177	(910)	5,640
Oct-10	5,579	(568)	(2,852)	2,159
Nov-10	4,159	(717)	530	3,973
Dec-10	329	1,048	301	1,678
Jan-11	(1,387)	(1,271)	462	(2,196)
Feb-11	(826)	433	957	565
Mar-11	1,556	1,732	(495)	2,793
<b>FY2011</b>	<b>24,295</b>	<b>(1,277)</b>	<b>(1,398)</b>	<b>21,619</b>

Source: Bloomberg, Kotak Institutional Equities

Exhibit 15: Very high correlation between 'net' institutional investment and the market  
Data on institutional investment and primary issuances and market performance (US\$ mn)

	Investment					Primary issuance				BSE-30 return	
	Sensex	FII -cash	FII - Futures	DII	Total	IPOs/FPOs	QIPs	Promoters	Total	Net flow	(%)
Jan-10	16,358	(230)	(2,128)	2,648	290	537	489	1,336	2,362	(2,073)	(6.3)
Feb-10	16,430	464	1,495	278	2,237	2,786	93	—	2,879	(642)	0.4
Mar-10	17,528	4,135	(104)	(923)	3,108	2,559	531	—	3,090	18	6.7
Apr-10	17,559	2,220	(1,016)	490	1,694	905	612	—	1,517	177	0.2
May-10	16,944	(1,989)	415	1,388	(186)	561	109	—	670	(856)	(3.5)
Jun-10	17,701	2,099	81	(1,032)	1,148	70	702	125	897	252	4.5
Jul-10	17,868	3,777	(115)	(1,322)	2,340	604	973	—	1,577	763	0.9
Aug-10	17,971	2,404	(893)	(969)	542	197	187	—	384	158	0.6
Sep-10	20,069	6,373	(768)	(2,834)	2,770	906	808	—	1,714	1,056	11.7
Oct-10	20,032	5,579	(3,420)	(2,660)	(502)	3,978	1,058	—	5,036	(5,538)	(0.2)
Nov-10	19,521	4,159	(186)	542	4,515	2,255	268	—	2,523	1,992	(3.0)
Dec-10	20,509	329	1,348	(109)	1,568	336	—	—	336	1,232	5.1
<b>CY2010</b>		<b>29,321</b>	<b>(5,292)</b>	<b>(4,504)</b>	<b>19,525</b>	<b>15,694</b>	<b>5,830</b>	<b>1,461</b>	<b>22,985</b>	<b>(3,460)</b>	<b>17.4</b>
Jan-11	18,328	(1,387)	(726)	1,152	(961)	797	—	—	797	(1,758)	(10.6)
Feb-11	17,823	(826)	1,390	1,272	1,836	60	94	—	154	1,682	(2.8)
Mar-11	19,445	1,556	1,238	7	2,801	129	443	—	572	2,229	9.1
Apr-11	19,136	1,574	(2,659)	(127)	(1,212)	456	13	—	469	(1,681)	(1.6)
May-11	18,503	(1,156)	26	915	(216)	1,069	—	—	1,069	(1,285)	(3.3)
Jun-11	18,846	734	631	(22)	1,343	31	122	—	153	1,190	1.9
Jul-11	18,197	1,667	(1,929)	(44)	(306)	314	74	—	388	(694)	(3.4)
Aug-11	16,677	(2,107)	876	1,831	600	133	—	—	133	467	(8.4)
<b>CY2011</b>		<b>54</b>	<b>(1,153)</b>	<b>4,984</b>	<b>3,885</b>	<b>2,989</b>	<b>746</b>	<b>—</b>	<b>3,735</b>	<b>150</b>	<b>(19)</b>

Source: Bloomberg, Kotak Institutional Equities

### Not-so-large inflows as per EPFR data

The large reported FII inflows in FY2011 as per SEBI data do not match our bottom-up observations. As per EPFR database, listed ETFs and non-ETFs invested about US\$4.5 bn in the Indian market in FY2011. Exhibit 16 gives the breakdown of likely flows into India in FY2011 by the types of funds. The rather abysmal inflows from non-ETF FII funds as seen from EPFR data matches with anecdotal evidence that many of the prominent FIIs were not seeing significant inflows into their funds during this period.

Exhibit 16: We estimate total non-ETF and ETF flows at around US\$4.5 bn in FY2011 based on EPFR data  
Consolidated EPFR data for country flows into India (US\$ mn)

	Asia (ex-Japan)	BRIC	Europe	Global	GEM	Global (ex-US)	India	Pacific	Total
<b>Total non-ETF flows (US\$ mn)</b>									
Apr-10	34	9	(1)	1	102	1	219	(1)	364
May-10	(33)	(56)	(2)	(14)	(88)	(27)	(279)	(1)	(499)
Jun-10	71	(12)	0	(7)	93	(10)	(58)	(3)	75
Jul-10	44	23	(0)	(0)	136	(5)	186	(0)	383
Aug-10	19	14	(1)	(3)	234	(12)	(119)	(5)	126
Sep-10	115	(10)	(2)	(3)	285	(24)	479	4	844
Oct-10	78	(14)	0	14	434	(12)	(110)	(1)	389
Nov-10	148	20	(2)	18	391	(12)	(117)	(1)	446
Dec-10	48	(22)	(0)	17	339	(13)	90	0	459
Jan-11	9	(41)	0	18	233	1	(15)	3	207
Feb-11	(246)	(133)	2	19	(142)	(3)	(437)	(8)	(948)
Mar-11	(127)	(122)	(4)	(4)	(11)	(4)	(277)	(21)	(570)
<b>FY2011</b>	<b>160</b>	<b>(345)</b>	<b>(7)</b>	<b>55</b>	<b>2,006</b>	<b>(121)</b>	<b>(439)</b>	<b>(34)</b>	<b>1,275</b>
<b>Total ETF flows (US\$ mn)</b>									
Apr-10	14	5	(0)	3	200	11	119	1	353
May-10	(6)	(18)	(1)	1	113	3	(20)	(0)	71
Jun-10	(3)	39	0	(1)	336	(10)	30	(2)	390
Jul-10	30	2	0	(1)	271	(0)	267	0	569
Aug-10	11	7	0	1	431	(1)	(30)	0	419
Sep-10	46	(1)	2	3	353	2	327	1	731
Oct-10	47	20	2	4	509	2	514	1	1,098
Nov-10	21	14	(0)	5	127	3	202	1	374
Dec-10	48	2	(1)	4	58	(0)	46	(2)	153
Jan-11	8	(54)	2	11	(112)	9	(73)	1	(208)
Feb-11	(68)	(1)	3	16	(630)	12	18	(1)	(649)
Mar-11	(41)	4	(2)	3	(64)	10	(170)	1	(260)
<b>FY2011</b>	<b>107</b>	<b>18</b>	<b>5</b>	<b>47</b>	<b>1,592</b>	<b>41</b>	<b>1,230</b>	<b>1</b>	<b>3,040</b>

Source: EPFR, Kotak Institutional Equities estimates

We have also looked closely for the source of the FII funds into India in FY2011 given that reported numbers are not supported by anecdotal evidence and other data. However, here too, we are forced to draw a blank as the EPFR database does not include all the FIIs that invest in India; many funds are unlisted, including large sovereign and private equity funds and there is very little data on their investments in various countries. Nonetheless, we estimate that EPFR database accounts for about 30-35% of funds invested in India and almost all the ETF funds since all of them are listed by definition (see Exhibit 17).

Exhibit 17: We estimate EPFR to cover ~34% of the total India FII exposure as of June 30, 2011  
Comparison of tracked and untracked universe of FII investments in India, June 30, 2011 (US\$ mn)

	ETF	Non-ETF	Total
Asia ex-Japan regional	898	5,199	6,097
BRIC	558	2,421	2,979
Europe regional	35	133	168
Global	229	2,006	2,235
GEM funds	7,532	16,038	23,570
Global ex-US	534	1,966	2,500
India	5,307	23,106	28,413
Pacific regional	73	532	605
<b>Total EPFR</b>	<b>15,166</b>	<b>51,402</b>	<b>66,568</b>
<b>KIE estimate of FII investment</b>			<b>195,000</b>
<b>EPFR proportion of universe tracked (%)</b>			<b>34</b>
EPFR proportion of universe tracked (ex-ETF) (%) (a) (b)			29

Notes:

- (a) All ETFs are listed while only a few non-ETF funds are listed.  
(b) We assume total ETF exposure to India of around US\$17 bn.

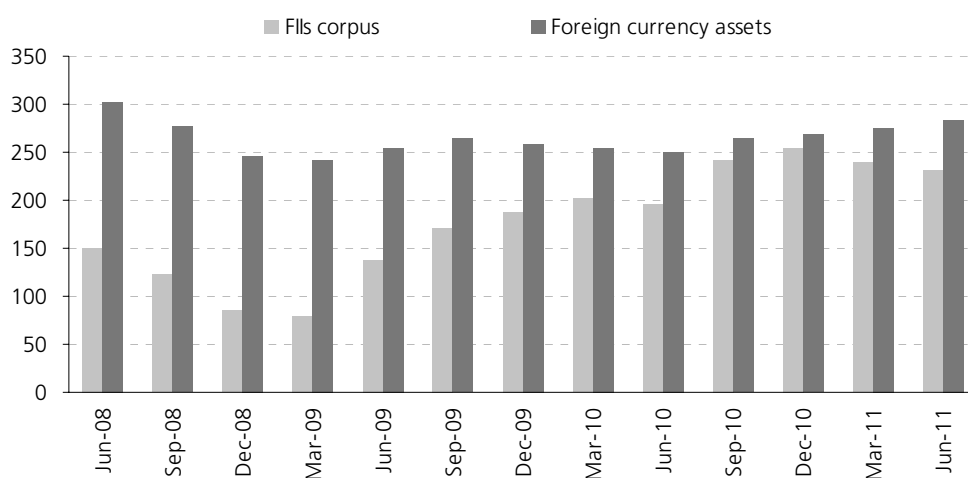
Source: EPFR, Kotak Institutional Equities estimates



We believe it is important to understand the nature of FII flows into India given its relevance for India’s BOP and foreign currency reserves. Exhibit 18 compares our estimates of FII investment in India (stock of investment) at the end of every quarter (shareholding data is available on a quarterly basis) with India’s corresponding foreign currency reserves. We would urge the Indian regulator to provide more disclosures on the types of funds rather than just the quantity of flows on a daily basis. As of now, it includes all foreign flows under the omnibus category of FIIs. More extensive disclosures could well counter any potential concerns that flows could be camouflaging (1) ‘hot’ money/ illicit unaccounted or ‘black’ money from overseas accounts of resident Indians, (2) high levels of proprietary positions of global investment banks, and (3) ‘round-tripped’ money from Indian companies.

**Exhibit 18: We urge the Indian regulator to provide more disclosures on the types of funds under the omnibus category of FIIs**

FIIs investments in India and foreign currency assets, March fiscal year-ends, 2008-11 (US\$ bn)



Source: BSE, RBI, Kotak Institutional Equities

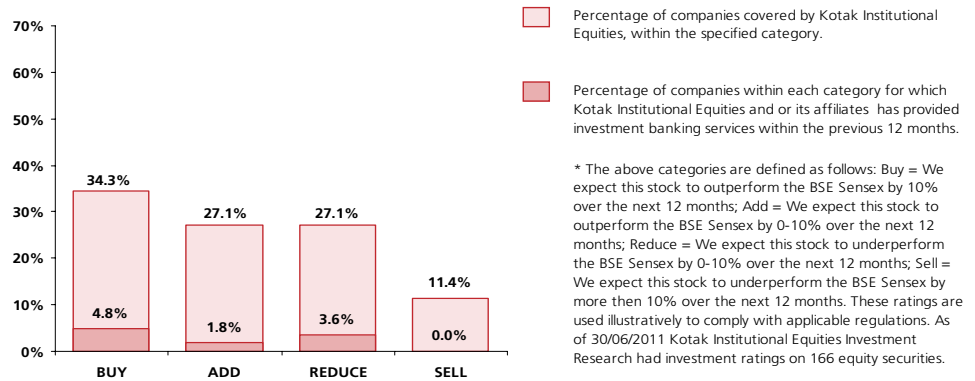








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 Distribution of ratings/investment banking relationships



Source: Kotak Institutional Equities

As of June 30, 2011

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