

Economics

30 June 2010 | 9 pages

India Macro Flash

FY10 Current Account Deficit Widens to Record High, but Capital Flows Sustain + Outlook for FY11

- **4QFY10 BoP Overall Surplus at US\$2.1bn** — Similar to trends in the previous quarter, rising imports (both oil and non-oil) resulted in the trade deficit widening to US\$31bn in 4QFY10. Invisibles, which normally see an uptrend in the 4Q, decelerated due to outflows on account of *business services* (see pg 3 for details). Encouragingly, the other components of invisibles (software + remittances) remained strong. This resulted in the current account deficit widening to US\$13bn vs. US\$12.2bn in the previous quarter. Capital flows led by FDI, FII and loans rose to US\$16.1bn resulting in the overall balance of payments coming in at US\$2.1bn in 4QFY10.
- **FY10 Highlights — CAD widens to record high, but capital flows sustain**

 - **Current Account Widens to US\$38.4bn, Surprises by ~US\$10bn:** A widening trade deficit resulted in the CAD coming in at US\$38.4bn or 2.9% of GDP – higher than our expectations of US\$29bn or 2.2% of GDP vs. US\$28.7bn in FY09. (*This is a record high in US\$ terms - as a percent of GDP, the record high was in 1991 at 3.2% of GDP*). While our estimates for invisibles were marginally lower due to outflows on account of business services, the trade deficit was ~US\$10bn higher. This could be attributed to valuation/revisions and defense imports; which resulted in the trade deficit widening to US\$117.3bn. (*Monthly customs data pegged the FY10 deficit at US\$102bn*).
 - **Capital Flows Rise to US\$53.6bn, In line with estimates:** In contrast to the US\$20bn drawdown in reserves in FY09, capital flows came in at US\$54bn. This was on account of foreign investment (both FDI and portfolio) as well as higher recourse to external borrowing. As a result, FY10 saw a net accretion of reserves of US\$13.4bn (*excluding valuation changes – see p. 6*).
- **FY11 Estimates — Revising CAD higher, Capital flows unchanged:** We are revising our CAD to US\$35.1bn or 2.2% of GDP from US\$25.5bn earlier. This (a) incorporates FY10 data, (b) accounts for higher non-oil imports due to the upturn in the investment growth, (c) keeps the export growth unchanged at 15% and (d) assumes continued buoyancy in remittances and software. Given the underlying growth story, we expect capital flows led by FDI to remain healthy at US\$57.3bn and be more than sufficient to finance the CAD.
- **INR appreciation story remains but pace remains a question:** Despite a CAD of US\$35bn, we maintain our view of a steadily appreciating currency with the rupee at Rs43.5/\$ by Mar11, given: (a) the underlying growth story – GDP of 8.4% in FY11E with reserves at US\$275bn, (b) imports are primarily led by industrial/capital goods, (c) capital flows are led by relatively more stable FDI flows and (d) flows are more than sufficient to finance the CAD.

Rohini Malkani

+91-22-6631-9876
rohini.malkani@citi.com

Anushka Shah

+91-22-6631-9878
anushka.shah@citi.com

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

4QFY10 – Quarterly Highlights

Current Account rises to US\$13bn in 4QFY10

- Similar to trends in the previous quarter, rising imports (both oil and non-oil) resulted in the trade deficit widening to US\$31bn in 4QFY10. Invisibles, which normally see an uptrend in the 4Q, decelerated due to continued outflows on account of business services. Encouragingly, the other components of invisibles (software + remittances) remained strong.
- This resulted in the current account deficit widening to US\$13bn vs. US\$12.2bn in the previous quarter.

...But sustained capital flows result in an overall surplus of US\$2.1bn

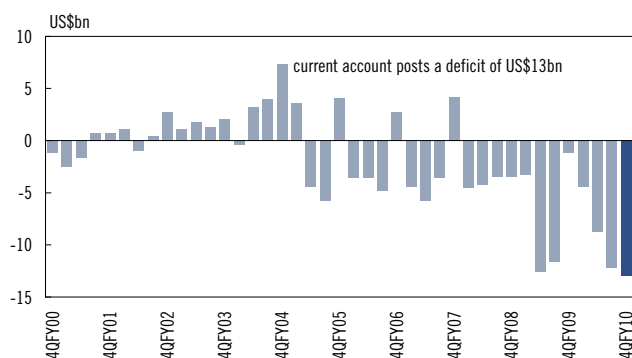
- Capital flows continued to post strong trends, led by FDI, FII and loans. This resulted in total capital flows to the tune of US\$16.1bn (vs. US\$14.7bn last quarter). The overall balance of payments thus came in at US\$2.1bn in 4QFY10 vs. US\$1.8bn in the previous quarter

Figure 1. India – Balance of Payments Snapshot (US\$bn)

	FY10				FY09	Full-Year		
	Q1	Q2	Q3	Q4	Q4	FY09	FY10	FY11E
a. Trade Balance	-25.6	-29.1	-31.1	-31.5	-20.2	-118.7	-117.3	-128.0
Exports	39.2	43.5	47.1	52.4	38.5	189.0	182.2	209.5
Imports	64.8	72.6	78.1	83.9	58.7	307.7	299.5	337.5
b. Invisibles	21.2	20.4	18.9	18.5	19.0	89.9	78.9	92.9
1. Current Account (a+b)	-4.5	-8.8	-12.2	-13.0	-1.2	-28.7	-38.4	-35.1
c. Loans	-1.8	2.5	5.6	6.0	-0.8	8.7	12.2	12.0
d. Foreign Investment	14.4	16.2	9.6	12.0	0.5	3.5	52.1	38.7
of which FII	8.3	9.7	5.7	8.8	-2.7	-14.0	32.4	17.0
e. Banking Capital Net	-3.4	4.4	1.9	-0.9	-3.3	-3.2	2.1	6.0
of which NRI deposits	1.8	1.0	0.6	-0.6	2.2	4.3	2.9	4.5
f. Other capital	-5.2	-4.3	-2.4	-0.9	5.1	-1.5	-12.7	1.0
g. Rupee debt service	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.4
2. Capital Account (c-g)	4.0	18.8	14.7	16.1	1.4	7.2	53.6	57.3
3. Errors & Omissions	0.6	-0.6	-0.7	-1.0	0.1	1.4	-1.7	0.0
Overall Balance (1+2+3)	0.1	9.4	1.8	2.1	0.3	-20.1	13.4	22.1

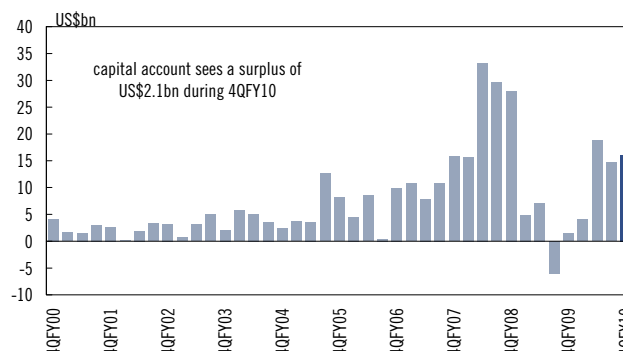
Source: RBI, CIRA Estimates

Figure 2. Trends in the Current Account (US\$bn)



Source: RBI

Figure 3. Trends in the Capital Account (US\$bn)



Source: RBI

Annual Highlights - Current A/c Dynamics

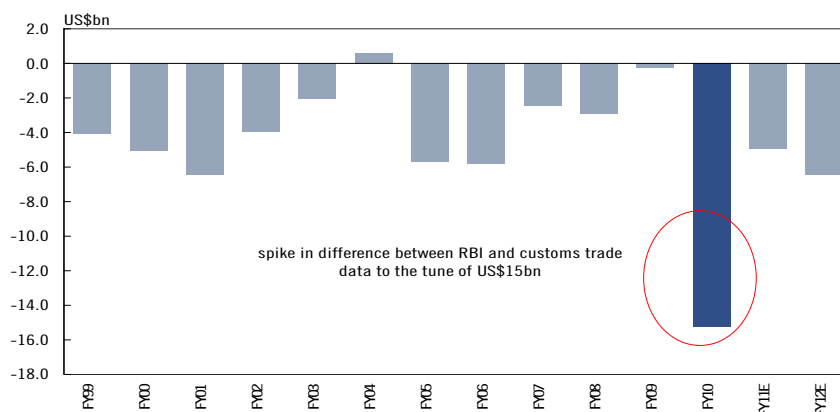
Two key anomalies in the current account that were a surprise included:

1. Big Divergence in Trade Data between Customs and RBI

A key reason behind a disconnect in forecasts and actual trade data is due to a significant divergence in the merchandise trade data, released by the Directorate General of Commercial Intelligence and Statistics (DGCI&S) and the Balance of Payments released by the RBI. In FY10, the difference spiked to US\$15.2bn vs. the average difference of US\$4-5bn seen in previous years. A quick re-cap, the annual average divergence between the RBI and Customs data is due to (1) valuation and timing differences for imports – the RBI data have a lead in payments since these are recorded when the payments are made to suppliers while the DGCI&S records them when the goods arrive in the country; (2) DGCI&S data do not cover defense imports.

On account of (1) valuation and timing differences, (2) defense payments; difference between RBI and customs data widened to US\$15bn vs. an avg difference of US\$4-5bn recorded in previous years

Figure 4. Difference between RBI and Customs Trade Data (US\$bn)



Source: RBI, DGCI&S

2. Invisibles Moderate as Business Services Dip into the Red

Headline invisibles saw a marginal slowdown to US\$79bn in FY10 (vs. US\$90bn last year)...

...this was on account of business, financial, and communication services dipping into negative territory

However, software services and remittances continued to post healthy growth

We expect invisibles to come in at US\$92.9bn in FY11 which factors in software services growing at 15%YoY

Invisibles, which trended close to US\$90bn in FY09, moderated to US\$78.9bn in FY10. While software services and remittances from workers' abroad – the two major components of invisibles – continued to post strong trends; a key item that dipped into negative territory was business services. This category includes merchandizing and trade related services, operational leasing and miscellaneous professional and technical services such as legal, accounting, advertising, market research, etc. Financial services, which comprise intermediary service fees and communications, also posted a contraction.

Figure 5. Trends in Invisibles (US\$bn)

	FY05	FY06	FY07	FY08	FY09	FY10
1. Non-Factor Services	15.4	23.2	29.5	38.9	49.6	34.2
a. Travel, Insurance, etc	1.7	-1.1	2.7	1.1	-0.2	2.0
b. Miscellaneous	13.7	24.2	26.7	37.7	49.8	32.2
Of which: Software Services	16.9	22.3	29.0	36.9	43.5	48.2
Business Services	-2.2	1.6	-1.3	0.2	1.0	-7.0
Financial Services	-0.3	0.2	0.1	0.1	1.0	-1.0
Communication Services	0.6	1.3	1.5	1.5	1.1	-0.2
2. Official Transfers	0.3	0.2	0.3	0.2	0.2	0.1
3. Remittances	20.5	24.5	29.8	41.7	44.6	52.1
4. Investment Income	-5.0	-5.9	-7.3	-5.1	-4.5	-7.4
Total Invisibles	31.2	42.0	52.2	75.7	89.9	78.9

Source: RBI

Balance of Payments Snapshot

Figure 6. India – Trends and Forecasts in the Balance of Payments (US\$B, %)

	FY06	FY07	FY08	FY09	FY10	FY11E	FY12E	CIRA Comments
CURRENTACCOUNT								
Exports(RBI)	105.2	128.9	166.2	189.0	182.2	209.5	251.4	FY11 numbers incorporate a 30% rise in petro exports and an 18% increase in petro imports
Y/Y%	23.4	22.6	28.9	13.7	-3.6	15.0	20.0	
% of GDP	12.6	13.6	13.5	15.6	13.9	13.1	12.9	
Exports-Customs*	103.1	126.3	162.9	185.3	176.6	205.8	247.0	
Y/Y%	23.4	22.5	29.0	13.7	-4.7	16.6	20.0	
Imports(RBI)	157.1	190.7	257.6	307.7	299.5	337.5	391.5	
Y/Y%	32.1	21.4	35.1	19.4	-2.7	12.7	16.0	
%to GDP	18.8	20.1	20.9	25.4	22.8	21.1	20.1	
Imports-Customs*	149.2	185.7	251.4	303.7	278.7	328.9	380.6	
Y/Y%	33.8	24.5	35.4	20.8	-8.2	18.0	15.7	
Of which Oil	43.8	56.9	79.6	93.7	85.5	100.9	118.5	Indian crude at US\$78/bbl in FY11
Y/Y%	46.5	30.0	39.9	17.6	-8.7	18.0	17.4	
Non-Oil	105.2	128.8	171.8	210.0	193.2	228.0	262.2	Higher due to pick up domestic economy + global prices
Y/Y%	28.8	22.4	33.4	22.3	-8.0	18.0	15.0	
a. Trade balance (RBI)	-51.9	-61.8	-91.5	-118.7	-117.3	-128.0	-140.1	ΔUS\$1/bbl in oil prices=US\$700 m impact on deficit
% of GDP	-6.2	-6.5	-7.4	-9.8	-8.9	-8.0	-7.2	
Trade Balance(Customs)	-46.1	-59.5	-88.5	-118.4	-102.1	-123.1	-133.7	Difference between RBI & customs data is due to
Difference bet. RBI and Customs Data	-5.8	-2.5	-2.9	-0.3	-15.2	-5.0	-6.5	Valuation and defense
b. Invisibles	42.0	52.2	75.7	89.9	78.9	92.9	98.9	In FY10, the diff spiked to US\$15.2bn
Non-factor services	23.2	29.5	38.9	49.6	34.2	46.0	52.0	
Of which: Software Services	22.7	29.0	36.9	43.5	48.2	55.5	63.8	Business services declined, but software stayed strong
Investment income	-5.9	-7.3	-5.1	-4.5	-7.4	-5.5	-5.5	Assumes a 15% growth in software services
Remittances**	24.5	29.8	41.7	44.6	52.1	52.0	52.0	
Official transfers	0.2	0.3	0.2	0.2	0.1	0.4	0.4	
1. Currenta/cbalance (a+b)	-9.9	-9.6	-15.7	-28.7	-38.4	-35.1	-41.2	Current a/c to remain in the red at 2.2% of GDP
% of GDP	-1.2	-1.0	-1.3	-2.4	-2.9	-2.2	-2.1	
CAPITALACCOUNT								
c. Loans	7.9	24.5	40.7	8.7	12.2	12.0	17.0	
External assistance	1.7	1.8	2.1	2.6	2.0	1.0	1.0	
Commercial borrowings***	2.5	16.1	22.6	7.9	2.5	8.0	10.0	
Short-term credit	3.7	6.6	15.9	-1.9	7.7	3.0	6.0	
d.FDI(Net=a-b)	3.0	7.7	15.9	17.5	19.7	21.7	23.7	
(a)FDI-To India	8.9	22.7	34.7	35.0	31.7	33.7	35.7	
(b)FDI-Abroad	-5.9	-15.0	-18.8	-17.5	-12.0	-12.0	-12.0	
e.Portfolio nvst(FII+ADRs/GDRs)	12.5	7.1	27.4	-14.0	32.4	17.0	15.0	Divestments could provide an additional boost
f.Banking Capital	1.4	1.9	11.8	-3.2	2.1	6.0	6.0	
Of which NRI deposits	2.8	4.3	0.2	4.3	2.9	4.5	2.5	
g.Rupee debt service	-0.6	-0.2	-0.1	-0.1	-0.1	-0.4	-0.4	
h. Other capital****	1.2	4.2	11.0	-1.5	-12.7	1.0	1.0	
2.Capitala/c(c+d+e+f+g+h)	25.5	45.2	106.6	7.2	53.6	57.3	62.3	
Errors & Omissions	-0.5	1.0	1.3	1.4	-1.7	0.0	0.0	
Overall balance(1+2)	15.1	36.6	92.2	-20.1	13.4	22.1	21.0	
Forex								
Forex assets	145.1	191.9	299.1	241.6	252.8	274.9	295.9	
FCA to months of imports	11.1	12.1	13.9	9.4	10.1	9.8	9.1	
Exchange rate								
Rs/US\$-annual avg	44.3	45.2	40.2	46.0	47.4	44.5	41.4	
%depreciation	-1.6	2.0	-11.1	14.4	3.0	-6.1	-7.0	
Rs/US\$-yearend	44.6	43.6	40.1	50.7	44.9	43.5	41.0	
%depreciation/(-)appreciation	2.0	-2.3	-8.0	26.4	-11.4	-3.1	-5.7	

*Data on exports and imports differ from those given by DGI&S on account of differences in coverage, valuation and timing (e.g. RBI data on imports includes defence). ** Remittances - 50% are for family maintenance; balance is local withdrawal from NRI rupee deposits. ***Commercial Borrowings include US\$4.1bn of the Resurgent Bond Issue repaid in September 2003 and repayment of India Millennium Bonds in FY06. **** Other capital refers to leads and lags in exports, advances received pending issue of shares, funds held abroad.

Source: RBI, CIRA Estimates.

Charting Trends in the Annual BoP

Figure 7. Trends in the Trade Deficit (US\$bn)

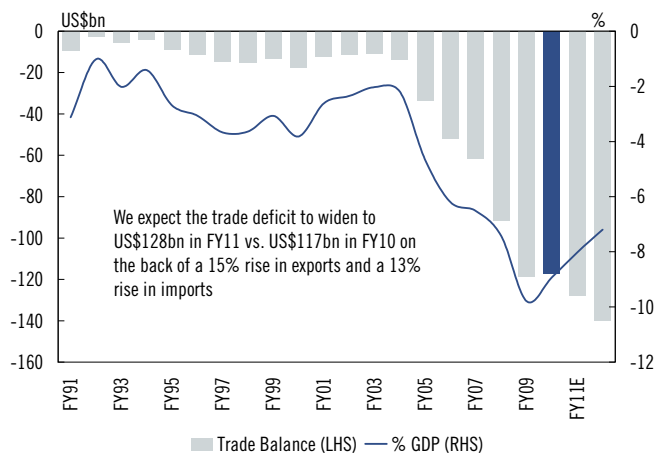


Figure 8. Trends in Invisibles (US\$bn)

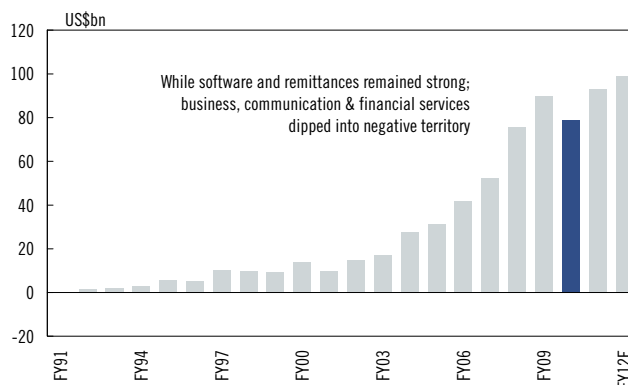


Figure 9. Trends in the Current Account (US\$bn, % GDP)

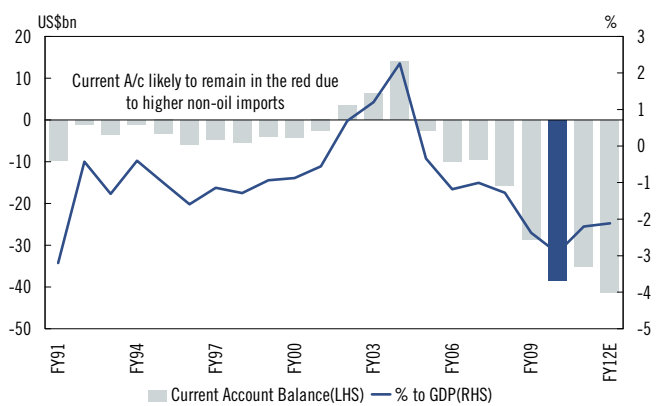


Figure 10. Trends in the Capital Account (US\$bn, % GDP)

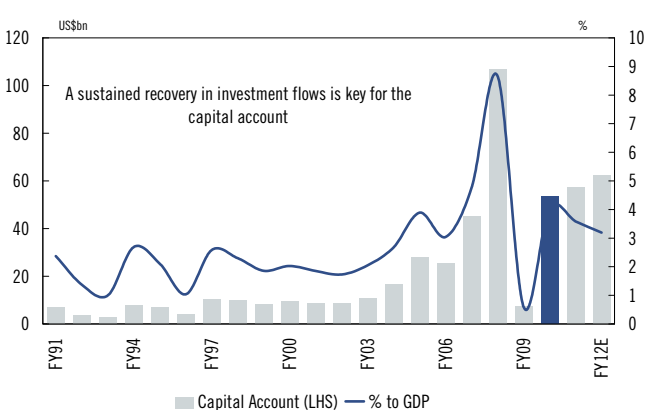


Figure 6. Trends in the Overall BoP (US\$bn, % GDP)

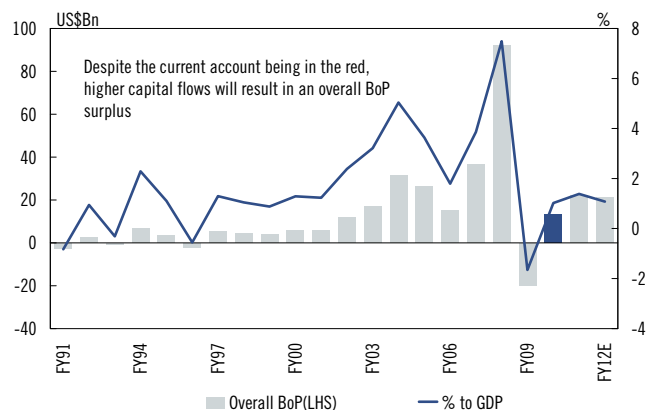


Figure 12. Sources of Variation in Foreign Exchange Reserves (US\$bn)

	FY09	FY10
1. Current Account Balance	-28.7	-38.4
2. Capital Account (net) (a to f)	8.6	51.9
a. Foreign Investment (i+ii)	3.5	52.1
(i) Foreign Direct Investment	17.5	19.7
(ii) Portfolio Investment	-14.0	32.4
Of which: FIIs	-15.0	29.0
ADRs/GDRs	1.2	3.3
b. External Commercial Borrowings	7.9	2.5
c. Banking Capital	-3.2	2.1
of which: NRI Deposits	4.3	2.9
d. Short-Term Trade Credit	-1.9	7.7
e. External Assistance	2.6	2.0
f. Other items in capital account	-0.2	-14.6
3. Valuation Change	-37.7	13.6
Total (I+II+III)	-57.7	27.1

Source: RBI, CIRA

Source: RBI, CIRA

Trade Snapshot – Direction and Composition

Figure 13. India – Composition of Imports (US\$Bn, %)

	FY05	FY06	FY07	FY08	FY09	FY10*
Petroleum crude& products	29.8	44.0	57.1	79.7	91.3	69.9
% to total	26.8	29.5	30.8	31.9	31.4	31.0
% YoY	44.9	47.3	29.8	39.6	14.6	-23.5
Capital goods	15.1	24.3	30.8	49.8	47.1	31.7
% to total	13.5	16.3	16.6	20.0	16.2	14.0
% YoY	37.9	61.0	26.8	61.9	-5.5	-32.8
Gold & Silver	11.1	11.3	14.6	17.9	18.7	22.1
% to total	10.0	7.6	7.9	7.1	6.4	9.8
% YoY	62.4	1.5	29.1	22.1	4.7	18.0
Chemicals, related products	8.7	11.4	13.8	18.7	29.1	19.4
% to total	7.8	7.6	7.5	7.5	10.0	8.6
% YoY	39.4	30.6	21.6	34.8	55.9	-33.4
Pearls precious stones	9.4	9.1	7.5	7.3	14.2	12.2
% to total	8.4	6.1	4.0	2.9	4.9	5.4
% YoY	32.0	-3.0	-18.1	-2.0	94.0	-14.5
Food & related items	3.5	3.3	4.9	5.3	5.7	7.8
% to total	3.2	2.2	2.7	2.1	2.0	3.5
% YoY	3.2	-7.2	50.5	8.8	6.4	37.9
Textiles(incl.RMG)	1.6	2.1	2.1	2.5	2.5	2.1
% to total	1.4	1.4	1.2	1.0	0.9	0.9
% YoY	24.8	30.5	4.3	15.3	2.9	-17.6
Other non-POL items	28.0	37.9	49.8	62.9	74.4	54.9
% to total	25.1	25.4	26.9	25.2	25.6	24.3
% YoY	45.9	35.4	31.4	26.4	18.3	-26.2
Other commodities	4.2	5.9	4.5	5.8	7.6	5.5
% to total	3.8	4.0	2.4	2.3	2.6	2.4
% YoY	62.4	39.6	-23.7	28.3	32.2	-27.7
TOTAL IMPORTS	111.5	149.1	185.1	249.8	290.7	225.5
% YoY	42.5	33.8	24.1	35.0	16.4	-22.4

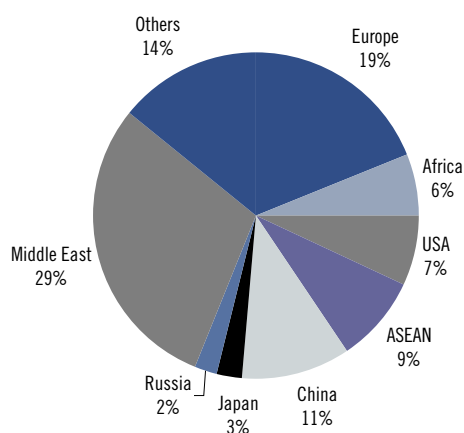
* April – Jan FY10 Source: CMIE ,RBI

Figure 14. Composition of Exports (US\$Bn, %)

	FY05	FY06	FY07	FY08	FY09	FY10*
Engineering goods	17.3	21.6	29.5	37.2	47.0	30.8
% to total	20.7	21.0	23.3	22.8	25.7	21.9
%YoY	40.1	25.1	36.3	26.4	26.2	-34.5
Petroleum, crude prods	7.0	11.6	18.7	28.4	26.9	21.7
% to total	8.4	11.3	14.8	17.4	14.7	15.4
%YoY	95.7	66.6	60.4	52.0	-5.3	-19.3
Gems & Jewellery	13.8	15.5	16.0	19.7	27.7	22.4
% to total	16.5	15.1	12.6	12.1	15.2	15.9
%YoY	30.0	12.9	2.8	23.3	40.9	-19.3
Agri, allied products	8.5	10.2	12.7	18.4	17.6	13.3
% to total	10.1	9.9	10.0	11.3	9.6	9.5
%YoY	12.4	20.6	24.1	45.5	-4.8	-24.1
Chemicals & related	8.0	10.3	12.1	15.6	17.3	13.8
% to total	9.6	10.0	9.6	9.5	9.4	9.8
%YoY	23.5	28.4	18.1	28.3	11.0	-20.1
Textiles (incl RMG)	13.5	16.4	17.4	19.4	20.0	15.9
% to total	16.2	15.9	13.7	11.9	11.0	11.3
%YoY	5.9	21.0	5.9	11.9	3.2	-20.8
Ores & minerals	5.1	6.2	7.0	9.1	7.8	6.5
% to total	6.1	6.0	5.5	5.6	4.3	4.6
%YoY	114.2	21.4	13.6	30.4	-14.4	-17.0
Other manuf goods	8.1	8.7	9.9	11.1	10.9	8.6
% to total	9.7	8.5	7.9	6.8	6.0	6.1
%YoY	28.2	7.6	13.9	11.7	-1.6	
Other commodities	2.3	2.5	3.1	4.0	7.7	7.6
% to total	2.7	2.4	2.4	2.5	4.2	5.4
%YoY	20.2	11.0	22.5	30.5	91.1	-1.4
TOTAL EXPORTS	83.5	103.1	126.3	163.0	182.9	140.5
% YoY	30.7	23.4	22.5	29.1	12.2	-23.2

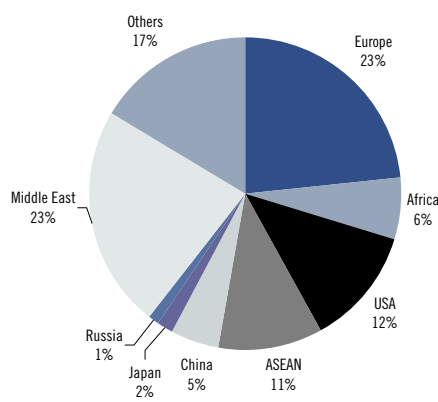
* April – Jan FY10 Source: CMIE, RBI

Figure 15. Direction of Imports FY09



Source: RBI ,CMIE

Figure 16. Direction of Exports FY09



Source: RBI, CMIE

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of all or any identified portion of this research report hereby certifies that, with respect to each issuer or security or any identified portion of the report with respect to an issuer or security that the research analyst covers in this research report, all of the views expressed in this research report accurately reflect their personal views about those issuer(s) or securities. The research analyst(s) also certify that no part of their compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this research report.

IMPORTANT DISCLOSURES

Rohini Malkani has in the past worked with the India government or its divisions in her personal capacity.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research & Analysis product ("the Product"), please contact Citi Investment Research & Analysis, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at www.citigroupgeo.com. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets India Private Limited

Rohini Malkani, Anushka Shah

OTHER DISCLOSURES

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Investment Research & Analysis (CIRA) does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of CIRA to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. Incorporated (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Investment Research & Analysis (CIRA) research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to CIRA research reports.

Important disclosure regarding the relationship between the companies that are the subject of this CIRA research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures.

The required disclosures provided by Morgan Stanley and Citigroup Global Markets, Inc. on Morgan Stanley and CIRA research relate in part to the separate businesses of Citigroup Global Markets, Inc. and Morgan Stanley that now form Morgan Stanley Smith Barney LLC, rather than to Morgan Stanley Smith Barney LLC in its entirety. For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and

https://www.citigroupgeo.com/geopublic/Disclosures/index_a.html.

This CIRA research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of CIRA. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in Australia through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in Brazil by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of Canada by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. The Product is made available in France by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product may not be distributed to private clients in Germany. The Product is distributed in Germany by Citigroup Global Markets Deutschland AG & Co. KGaA, which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). Frankfurt am Main, Reuterweg 16, 60323 Frankfurt am Main. If the Product is made available in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Ltd., it is attributable to Citigroup Global Markets Asia Ltd., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Product is made available in Hong Kong by The Citigroup Private Bank to its clients, it is attributable to Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. The Citigroup Private Bank and Citibank N.A. is regulated by the Hong Kong Monetary Authority. The Product is made available in India by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in Indonesia through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in Israel through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in Italy by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Foro Buonaparte 16, Milan, 20121, Italy. The Product is made available in Japan by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by Nikko Cordial Securities Inc. it is being so distributed under license. In the event that an error is found in a CGMJ research report, a revised version will be posted on the Firm's Global Equities Online (GEO) website. If you have questions regarding GEO, please call (81 3) 6270-3019 for help. The Product is made available in Korea by Citigroup Global Markets Korea Securities Ltd., which is regulated by Financial Services Commission and the Financial Supervisory Service. Hungkuk Life Insurance Building, 226 Shinmunno 1-GA, Jongno-Gu, Seoul, 110-061. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Sdn Bhd, which is regulated by Malaysia Securities Commission. Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, 50450. The Product is made available in Mexico by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In New Zealand the Product is made available through Citigroup Global Markets New Zealand Ltd. (Company Number 604457), a Participant of the New Zealand Exchange Limited and regulated by the New Zealand Securities Commission. Level 19, Mobile on the Park, 157 Lambton Quay, Wellington. The Product is made available in Pakistan by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul. Chalubinskiego 8, 00-630 Warszawa. The Product is made available in the Russian Federation through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gashka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd., a Capital Markets Services Licence holder, and regulated by Monetary Authority of Singapore. 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192. The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Spain by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gassef, 4th Floor, Madrid, 28006, Spain. The Product is made available in Taiwan through Citigroup Global Markets Taiwan Securities Company Ltd., which is regulated by Securities & Futures Bureau. No portion of the report may be reproduced or quoted in Taiwan by the press or any other person. No. 1, Songzhi Road, Taipei 110, Taiwan. The Product is made available in Thailand through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in Turkey through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the U.A.E, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different CIRA ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in United Kingdom by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is regulated by FINRA and the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Many

European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to CIRA's Products can be found at www.citigroupgeo.com. Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations. The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted. Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

© 2010 Citigroup Global Markets Inc. Citi Investment Research & Analysis is a division and service mark of Citigroup Global Markets Inc. and its affiliates and is used and registered throughout the world. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure is prohibited by law and will result in prosecution. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST
