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India's Trade Profile:

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INDIA'S TRADE PROFILE

Highlights

- World merchandise exports declined in 2010 by 12%, while the GDP came down by 2.4%. The decline in trade was on account of weaker demand due to the slow global recovery from the financial crisis and the Euro debt crisis of 2010.
- In FY10, the emerging countries like India and China saw higher capital inflows as investors flew to safer havens. China overtook Germany as the lead exporter of merchandise. India was ranked the 21st exporter of merchandise. China's share in world merchandise imports increased to 7.9% in FY10 resulting in China becoming the 2nd largest world importer and India stood at the 14th position.
- India's share in world merchandise exports has increased from 0.8% in FY04 to 1.3% in FY10. Similarly, India's share in world merchandise imports rose from 0.9% in FY04 to 2% in FY10.
- European Union (EU), a block of 27 countries, is one of India's largest trading partner. EU comprised 21% of India's exports and 13% of India's imports in the first nine months of FY11.
- The growth in trade between India and the EU has been remarkable. The average annual growth rate of India's exports to EU is 18% and India's imports from the EU region is 19.5% between FY01 and FY10.
- Among the EU countries, Germany is the largest importer of Indian goods with 3.4% of India's exports in FY09, which declined to 3% of India's exports in FY10. Germany is also the largest exporter to India among the EU countries with 4% of India's imports, which declined to 3.6% of India's imports.
- In FY10, EU-India trade moderated to US $ 95 bn on account of the European debt crisis, where spending cuts across Europe led to import order cancellations and postponement by some of the European countries.

Key take aways:

1. India's Trade and EU crisis:

It has been observed, from historical data and certain indicator analysis, that the share of EU region in India's trade is not very high and hence the impact of the EU crisis has only marginally impacted India's trade.

2. India's Trade and World GDP:

High correlation has been observed between the World economic growth and India's trade growth.

High Correlation with global trade

3. Impact of Rising Crude Oil prices:

It has been deduced that in case the oil prices increase by US$ 1 then the burden on India's imports would be an additional amount of US$ 1,028 mn.

Oil price hike will hurt

4. Response of Trade flow to Exchange rate:

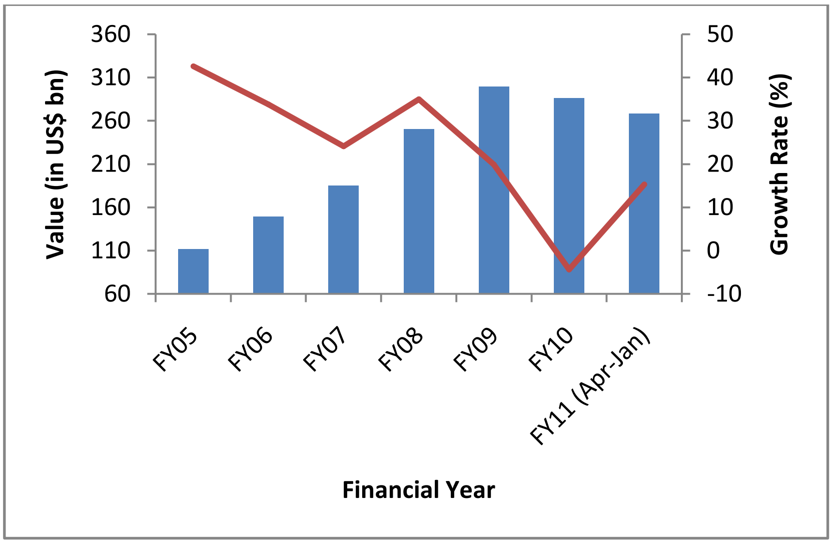
There is no clear relationship between changes in exchange rates and change in exports, at both the annual as well as monthly levels. This does come as a surprise considering that it is normally believed that rupee depreciation helps to increase exports. In fact, the weak relationships that are obtained do come with a net negative sign for exchange rate impacts even when lags are considered.

No clear relation between exchange rate and growth in exports

A. Trends in India's trade

Export Profile:

Graph 1: India's Exports and Growth rates



Exports peaked in FY09

Graph 1 illustrates the exports of India along with its growth rates. India's exports have been increasing swiftly but at a slower pace as compared to increase in imports. In FY05, India exported goods worth US$ 84 bn, which expanded to US$ 183 bn in FY09. In FY10, due to decline in import demand from EU region, India's exports showed a negative growth rate of 2.6%.

Recovery seen in FY11 after negative growth registered in FY10

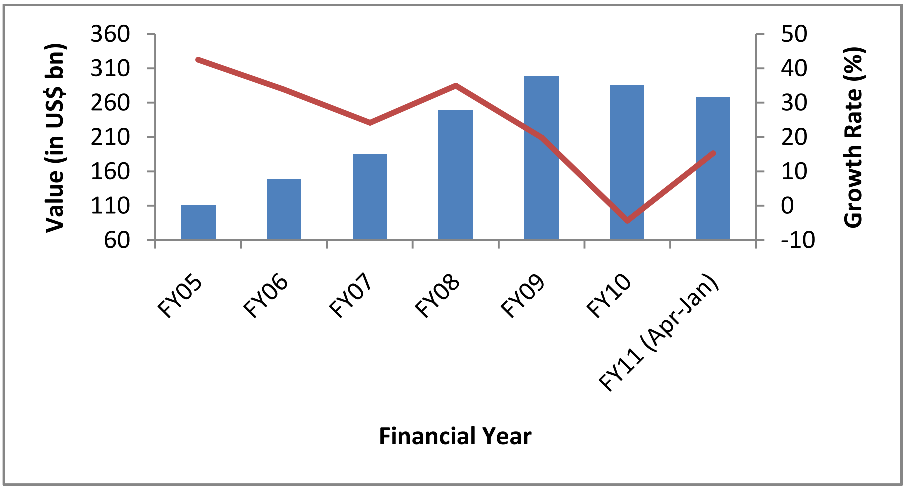
FY11 (April-Jan) has seen a gradual pick up in India's exports. Cumulative value of exports during April-Jan FY11 stood at US$

182 bn. Exports grew by 27.5% in the first 10 months of FY11 over the first 10 months of FY10, with the value of exports at US$ 142 bn.

Import Profile:

Imports are picking up after lackluster performance in FY10

Graph 2: India's Imports and Growth rates



Graph 2 shows the imports by India along with its growth rates. India's imports have been increasing sharply from US$ 111 bn in FY05 to US$ 300 bn in FY09. Growth rates peaked in FY08 to 35% and dipped the most in FY10 to -4% on account of lackluster global economic activities.

FY11 (April-Jan) has seen a gradual pick up in India's imports. Imports grew by 15.3% in the first 10 months of FY11 as against the first 10 months of FY10, with the value of imports at US$ 233 bn.

Overall trade declined in FY10

Table 1: Trade Overview (in US$ bn)

	Exports	Imports	Deficit
April-Jan FY09	160	272	112
April Jan FY10	143	233	90
April-Jan FY11	182	268	86

Source: DGCI&S, RBI

Table 1 illustrates India's trade pattern in the first ten months of the last 3 fiscals. It is evident that overall trade declined in FY10 on account of a fall in Global expenditure. Trade has improved in FY11 as economic activities are picking up. However, it is important to note that the growth rate of 27.5% in exports is also aptly due to the low base in FY10. But, nonetheless, exports have already crossed the US$ 200 bn mark by February and the momentum is expected to be sustained in the coming year.

B. Structure of India's Trade

Exports profile:

Table 2: India's commodity-wise Export Trends

	FY05	FY06	FY07	FY08	FY09	FY10	FY11
							Apr-Sept
Commodity/ Year	**Share in total Exports (%)**						
I. Primary Products	**16.2**	**15.9**	**15.6**	**16.9**	**13.7**	**14.8**	**12.3**
II. Manufactured Goods	**72.7**	**70.4**	**67.2**	**63.2**	**66.5**	**64.7**	**66.8**
Conventional	*37.0*	*35.0*	*30.1*	*27.3*	*28.7*	*33.5*	*32.1*
Leather	2.9	2.6	2.4	2.2	1.9	1.9	1.8
Textile	16.2	15.9	13.7	11.9	10.8	11.1	10.4
Gems & Jewellery	16.5	15.1	12.6	12.1	15.1	16.2	15.3
Non- Conventional	*35.7*	*35.4*	*37.1*	*35.9*	*37.8*	*31.2*	*34.7*
Chemical Products	14.9	14.3	13.7	13.0	12.3	9.7	9.1
Engineering Goods	20.8	21.1	23.4	22.9	25.5	21.5	25.7
III. Petroleum Products	**8.4**	**11.3**	**14.7**	**17.4**	**14.9**	**15.7**	**17.3**
IV. Others	**2.7**	**2.4**	**2.5**	**2.5**	**5.0**	**4.8**	**3.7**
Total Exports	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: DGCI&S, RBI

Commodity-wise Exports

- Table 2 illustrates India's export profile classified commodity-wise. The share of primary products in India's total exports has been declining over the years from 16.2% in FY05 to 12.3% in FY11.
  - Also, the share of manufacturing goods in India's total export has declined from 72.7% in FY05 to 66.8% in FY11.
  - On the other hand, the share of petroleum products rose from 8.4% in FY05 to 15.7% in FY10 and further to 17.3% in FY11.

Declining share of manufacturing goods

- The decline in the exports of primary products was mainly on account of the decline in exports of these products to the US, UAE, Bangladesh and Saudi Arabia, which constitute around 30% of India's Primary product exports.

Decline in exports to US, UAE, Bangladesh and Saudi Arabia

- The decline in the non-conventional manufacturing products, like chemicals and engineering goods, was due to decline in exports of these to Germany, US, UAE and Singapore.
- US and Belgium constitute 1/4th of the total exports of gems and jewellery from India. The decline in the exports of these goods is mainly on account of exports to these nations.
- A significant feature is the increase in export of petroleum products which has come about due to the increase in refining capacity in the country.

Imports Profile:

Table 3: India's commodity-wise Import Trends

Commodity wise Imports

	FY06	FY07	FY08	FY09	FY10	FY11
						Apr-Oct
Commodity/ Year	**Share in total Imports (%)**					
Petroleum Products	**29.5**	**30.7**	**31.7**	**30.8**	**30.3**	**30.1**
Non - Petroleum Products	**32.8**	**33.2**	**35.0**	**31.2**	**25.4**	**20.9**
Capital Goods	25.3	25.3	27.9	23.7	15.2	13.4
Gold & Silver	7.6	7.9	7.1	7.5	10.1	7.5
Export Related Items	**12.5**	**9.6**	**8.3**	**10.5**	**15.0**	**17.6**
Bulk Items	**11.5**	**14.0**	**13.2**	**14.9**	**11.0**	**14.6**
Coal, Coke & Briquettes, etc	**2.5**	**2.6**	**3.3**	**2.6**	**3.1**	**3.0**
Chemical & Related Products	**1.4**	**1.3**	**1.3**	**1.4**	**1.5**	**1.6**
Artificial Resins & Plastic Materials, etc	**1.5**	**1.4**	**1.5**	**1.3**	**1.7**	**2.2**
Others	**8.3**	**7.2**	**5.7**	**7.3**	**12.0**	**10.0**
Total Imports	**100**	**100**	**100**	**100**	**100**	**30.1**

Source: DGCI&S, RBI

- Table 3 illustrates the import pattern of India commodity-wise for the last 6 years. Petroleum products account for a little less than a third of our imports.

POL imports declined on account of fall in Oil prices in FY10

- In FY10, the imports of POL showed a decline on account of the reduction in the crude oil prices during this period. In the first 6 months of FY11, the share of Petroleum products has been stable at 30.1%.
- The decline in imports of non-POL goods during FY10 was account of decline in imports of capital goods, pearls, gold & silver and semi precious stones. The decline in import of capital goods is a concern as this would be required to keep the pace of industrial growth at a high level.

India imports 70% of its Oil needs

India imports nearly 70% of its oil needs and hence any spike in oil prices is most likely to put inflationary pressures. Oil prices have been rising on account of political unrest in oil rich countries. Currently, oil prices stand at \$ 99.3 per barrel. In FY11 (April-Jan), we have imported Crude products worth US\$ 79.95 bn, which was 13.9% higher than Crude Oil imports of US\$ 70.18 bn in the corresponding period last year.

Impact of rising oil prices

Table 4: Impact of Oil prices

Rising Oil prices scenario

	Total Quantity of Oil Imports	India's Cost per barrel of Oil imports	Brent Cost
	(in mn barrel)	(in US$)	(US$/bbl)
FY06	826.8	53.2	54.57
FY07	947.0	60.3	65.16
FY08	1057.0	75.4	72.44
FY09	1109.0	82.5	96.94
FY10	1231.4	70.5	61.74

Source: RBI, CMIE

Table 4 illustrates the trend in Oil prices. In order to access the impact of rising oil prices on India's import cost we have worked a model, where we have taken the sum of crude oil and petroleum products' imports as shown in column 1 which is expressed as number of barrels imported. Further, we have calculated the total cost incurred by India on the import of these products, which is shown in column 2 in terms of price per barrel. Column 3 gives the Brent price for the same.

Elasticity between Total cost of Imports and Brent at 0.74

In order to see the impact of change in the price of Brent cost on India's cost of imports we have attained the elasticity. ***Leaving out the outliers, the elasticity of India's total cost of Imports and Brent cost stood at 0.74.*** This means that if Brent advances by US$1 then the cost of India's import's of oil will advance by US$ 0.74.

On an average India's imports of oil increase by 12.4%, thus resulting in an import of 1,384 mn barrels. ***Therefore, if the price of petroleum products goes up by US$ 1 on an average then the import bill will go up by US$ 1,028 mn.***

C. Direction of India's trade (in FY10)

Table 5: Direction of India's Trade (in %)

	Share in exports	Share of Imports
OECD	**37**	**32**
EU	21	13
North America	12	7
Asia & Oceania	3	7
Other OECD	1	5
OPEC	**22**	**32**
Eastern Europe	**1**	**2**
Asia	**28**	**26**
SAARC	5	1
Others	24	26
Africa	**6**	**4**
Latin America	**3**	**3**
Others	**3**	**1**

Source: DGCI&S

Asian countries principal Importers from India

Table 5 illustrates the direction of India's trade in FY10. Asian countries comprised of 28% of India's exports followed by the OPEC countries and the EU region at 21% of India's exports. India's imports come primarily from the OPEC countries at 32% followed by the other Asian countries at 26%. EU region comprises of 13% of India's total imports.

OPEC countries principal exporters to India

Destination-wise the share of OPEC countries in India's imports has been rising, while the share of Asian countries has been declining. OECD countries comprise the maximum share of India's imports. It declined marginally from 35% in FY08 to 32% in FY10. Of the OECD countries, EU region formed 15% of total trade with India in FY08 and declined marginally to 13% in FY10.

D. India's presence in World trade

World Presence

Table 6: Share in World Exports/Imports

	Exports		Imports	
	FY01	**FY10**	**FY01**	**FY10**
Agriculture products	1.1	1.4	0.7	1.2
Food	1.3	1.4	0.5	1.0
Manufactured goods	0.7	1.3	0.5	1.3
Iron and Steel	0.9	1.9	0.5	2.3
Chemicals	0.7	1.3	0.8	1.8
Pharmaceuticals	1.0	1.3	Neg	Neg
Telecom equipments	Neg	0.7	0.2	2
Automotive products	0.1	0.6	Neg	Neg
Textile	3.5	4.3	Neg	Neg
Clothing	3.0	3.6	Neg	Neg
Transport services	0.6	1.5	2.1	4.2
Commercial services	-	3.7	-	2.4

Source: WTO

Increase in global share in case of chemicals, textiles, transport and commercial services

Table 6 illustrates the share of India's exports or imports in the world exports or imports of a commodity or service. Since FY01 India's share in world export of Textile and Clothing has been higher. It has risen marginally over time from 3.5% in FY01 to 4.3% in FY10 and from 3.0% in FY01 to 3.6% in FY10 respectively. On the other hand, India's share in Iron and Steel has risen over the period of time from 0.9% in FY01 to 1.9% in FY10.

Table 7: India's World Ranking (as on FY10)

India's world rankings		
Services	**Exports**	**Imports**
Computer	2	3
Construction	12	13
Insurance	7	7
Financial	7	5
Information	2	4
Business	6	6

Source: WTO

Table 7 illustrates India's world ranking with respect to various services. India was ranked 2nd in the export of Computer and Information services in FY10 and was ranked 3rd in imports of computer services and 4th in the import of Information services.

E. Trends in World trade

World trade in 2010 was dominated by a severe financial and economic crisis in decades. Global output shrank. So did the volume of international trade. The developing countries trade was were adversely affected by the crisis as trade flows to the developed world declined. In other words, trade slumped and domestic investment declined as potential investors were trying to remedy their own wounds.

Global trade flows decline, thus affecting Indian trade

China, Brazil and India saw exports drop, but countries not belonging to the top 20 developing country exporters were hit even harder. The developing countries to be affected by the crisis most were the ones which had globally integrated financial sectors. Following this the impact was felt on trade as volumes and prices of commodities collapsed across the globe. Trade and GDP growth have started to pick up again. The number of bilateral trade deals continues to grow, with Switzerland an enthusiastic participant. Recently, India and Japan entered into a free trade pact, under which the two countries pledged to scrap tariff 94% of goods within a decade. Meanwhile, with the US and the EU threatening to impose tariffs on exports from emerging economies with no hard emissions caps, it is clear that governments need to find some way of discussing the new challenges confronting the global economy.

India-Japan free trade pact

F. Europe crisis and India

The Greek crisis ballooned into a major European crisis. Even with the EU-IMF chipping in funds through rescue plans for the debt laden economies of Southern Europe, the Euro continued to depreciate against the Rupee from a Rs. 56.99 per Euro on an average in FY08 to Rs. 65.13 per Euro on an average in FY09 and further to Rs. 67.08 per Euro on an average in FY10.

European debt crisis and India

Economies such as Greece, Portugal and Spain introduced cuts in spending and undertook other measures to bring down their fiscal deficits. These activities would adversely affect India’s trade. This analysis tries to capture the impact of the European debt crisis on India’s trade.

Implications for India

Table 8: Share of some EU countries' share in India's trade

Crisis-Hit European Countries						
Share in India' Total (%)						
Countries	**FY08**		**FY09**		**FY10**	
	Exports	**Imports**	**Exports**	**Imports**	**Exports**	**Imports**
Germany	3.1	3.9	3.4	4	3.0	3.6
Greece	0.3	0.05	0.5	0.02	0.3	0.05
Ireland	0.2	0.1	0.2	0.08	0.1	0.09
Spain	1.4	0.4	1.4	0.3	1.1	0.4
Belgium	2.6	1.7	2.4	1.9	2.1	2.1
Portugal	0.3	0.01	0.2	0.02	0.2	0.02
Total	**7.9**	**6.2**	**8.1**	**6.3**	**6.8**	**6.3**

EU India's 9th largest trade partner

Table 8 illustrates that the share of those European countries, which were affected by the debt crisis, in India's trade. Germany per se would not be a part of the crisis nations, but considering that it was involved in the bail out and had to take on the onus of this resuscitation package, it would be an important factor affecting our trade. It can be observed that the share of these select few countries in India's trade is small. Together these countries contributed 6.8% to India's total exports (1.7% if only the four troubled countries are considered) and 6.3% (0.56%) to India's imports in FY10. The share of exports grew to 8.1% and the share of India's imports from these countries also increased to 6.3% in FY09. The share of exports declined to 6.8% and the share of India's imports remained constant at 6.3% in FY10.

In FY11, we have observed that there has not been a slowdown in exports despite the crisis. However, this may be partly attributed to the rising commodity prices. The volumes traded declined but since the prices have been reflecting an upward spiral the overall trade value has not declined.

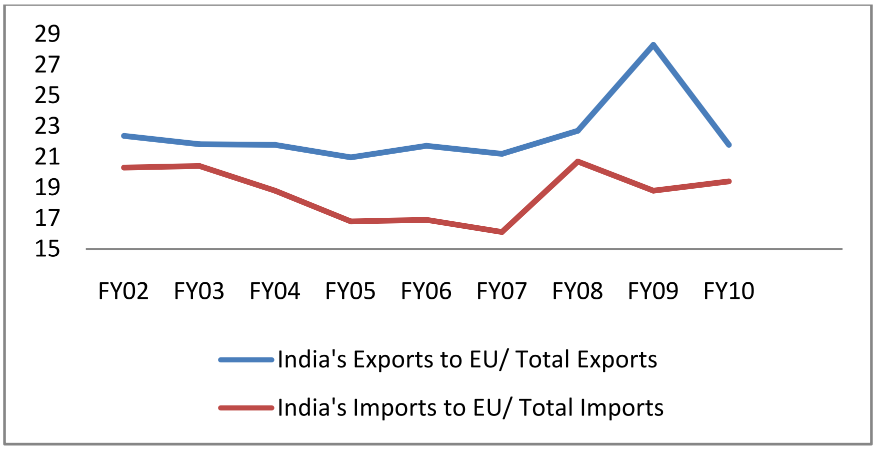
Indo-EU Trade Relations

EU, our largest trading partner

The EU, a block of 27 countries is one of India's largest trading partners and India was EU's 9th largest trading partner in 2009. 22 of India's total exports are towards the EU region. Hence, the Euro debt crisis was expected to have negative impact on India's trade.

India's trade with the Euro region has risen from US $20 bn in FY02 to US $36 bn in FY06, which further increased to US $89 bn in FY08 and US $99 bn in FY09. The share of India's exports (and imports) to EU region from India's total exports (and imports) is given in Graph 1.

Graph 3: Share of India's exports (and imports) to EU countries from India's total exports (and imports)



No clear view on impact of European crisis on India's trade

In FY10, EU-India trade moderated to US $ 95 bn on account of the European debt crisis, where spending cuts across Europe led to import order cancellations and postponement by some of the European countries. Graph 3 illustrates that the share of exports to EU region rose to 29% in FY09 and declined to 22% in FY10. This decline was on account of the debt crisis in the European region. However, in FY11 (April-June), trade with EU has picked up to register US $23 bn. Share of imports from EU region rose during FY08 to 21%, which declined to 18.8% in FY09.

Despite the unprecedented support from EU and IMF, the euro crisis that began in Greece, quickly engulfed the entire Euro region, reducing confidence in the European economy as a whole. As the Euro weakens, exporters across the world suffer as around 40 of the global exports are to Europe.

April-June FY11 showed a renewal in India's trade with European countries. In the first 3 months of FY11, India has exported US $10 bn to the European region and imported US $13 bn from European region. The EU surplus rose slightly from US $14 bn in FY08 to US $15 bn in FY09 and rose further to US $17 bn in FY10. This implies that the imports of the European region contracted more than their exports.

Currency Impact

How is Rupee movement influencing Trade?

Rupee appreciation and depreciation have been linked with changes in exports as theoretically a depreciation of the rupee should make exports more competitive in the markets. In order to test this hypothesis, a regression analysis has been carried out to check for the same.

The variables chosen have been changes in exports in percentage terms and changes in exchange rates in percentage terms. The

Relationships explored between change in exports and change in exchange rate

analysis has been done using different combination of explanatory variables. The first version looks at annual changes in exports and exchange rates. The second variant looks at monthly data and regresses changes on a y-o-y basis i.e. March 2010 over March 2009, Feb 2010 over Feb 2009 and so on. Lags are also introduced with one year to see if it has an impact. The third variant looks at y-o-y changes in exports on m-o-m changes in exchange rate where the month on month changes are defined as March 2010 over Feb 2010, Feb 2010 over Jan 2010 and so on. Here too a one period lag has been introduced. Other hypotheses of m-o-m exports and exchange rates have also been regressed but the results are not significant and have not been included here.

The following table summarizes the results.

Table 9: Summary of the Regression Analysis

	No of Obs.	R-square	Intercept	X1	X2 (1-lag)
Exports (y-o-y) on exchange (y-o-y)	108	0.11	21.05 (11.05)	-0.77 (-3.61)	
Exports (y-o-y) on exchange (y-o-y)	107	0.36	21.26 (13.47)	2.82 (4.79)	-3.77 (-6.42)
Exports (y-o-y) on exchange (m-o-m)	108	0.08	21.27 (11.39)	3.44 (3.09)	
Exports (y-o-y) on exchange (m-o-m)	107	0.09	21.36 (11.35)	3.04 (2.58)	1.31 (1.11)

*All variables are percentage changes

Table 9 analyses four scenarios have been examined.

Exports vis-à-vis (y-o-y) Exchange rate

Case I: The impact of exchange rate (y-o-y) on exports growth (y-o-y) is examined to begin with. While the r-square is low, the exchange rate change has a negative sign meaning thereby that depreciation of the rupee leads to a decline in growth in exports. The coefficient is significant.

Exports vis-à-vis (y-o-y) exchange rate with lag

Case II: The impact of exchange rate (y-o-y) on exports is considered with lag. Lag is considered to take into account the fact that there could be spillover effects from the previous month. Here, while the R-square is high, the two coefficients go with different signs: the current exchange rate is positively related while the previous month’s rate change is negatively related. As the latter is higher than the former, the net effect would again be negative.

Exports vis-à-vis m-o-m exchange rate

Case III: The impact of exchange rate (m-o-m) on exports is considered. It can be observed that the R square is low at 0.08. Coefficient of (m-o-m) change is however significant and hence impacts exports in the expected manner. But, the overall relationship accounts for only part of the change in the growth in exports. .

Case IV: the impact of exchange rate (m-o-m) on exports is considered with lag. In this case as well the regression is weak as the R square is low. However, both the coefficients show positive relation with change in exports. Therefore, one can conclude that if for example, the rupee has depreciated in the month of March and February, growth in exports in March will be positive.

Exports vis-à-vis m-o-m exchange rate with lag

Quite interestingly if the same relationship is examined over full years, between 1980 and 2010, the R-square is relatively high at 0.32, but the coefficients of percentage change in exchange rate, both for the current period as well as the one-year lag, have negative signs, indicating that the two are inversely related.

Based on these regressions, it is not really conclusive if exchange rate has a major bearing on change in exports. The explanation that may be forwarded here is that the price impact may not really be that significant as demand factors have a greater bearing on the same. .

World GDP and Exports

An analysis for the last 30 years illustrates that if the World GDP grows by 1% then India's trade would grow by 1.07%. Therefore, we see that when the world GDP registered a decline to US$ 57,843 bn in 2009, India's exports fell to US$ 178 bn.

Trade Growth contingent on growth in world economy

The following table supports the above argument.

Table 10: Summary of the Regression analysis

Dependent Var Y	**Exports (Y-o-Y)**
Independent Var X_1	**World GDP (y-o-y)**
R square	**0.33**
Intercept	**0.04**
t value	1.82
X_1 variable	**1.07**
t value	3.62

A regression was considered in order to analyze how well changes in world GDP would be captured in India's export growth. It is observed that the R square is low at 0.33 however; both the intercept and the X_1 variables are significant. The significant takeaway is that exports growth in contingent on growth taking place in the world economy i.e. recipient countries.
