Indo-Belgian Trade Relations:

Towards diversification beyond diamonds

***Dr. Mohammad Shafi**

Abstract

Indo-Belgian relations trace back to 1948 when India established diplomatic relations with Belgium. Backed by a sustained relationship which has been christened by a host of agreements effected by the two countries over the last six decades, Indo-Belgian trade relations are set to brace to new horizons.

With Belgium being the second largest trading partner after Germany in the EU, the trade between the two countries has crossed 10 Billion Euros in 2010. However, there has been a serious concern felt by both sides. The trade between the countries has been hovering around a single commodity group i.e., Gems and Jewelry. Both countries, of late, have realized the importance of diversifying the trade beyond diamonds into other domains identified by both the countries. There have been serious efforts culminating into policy implications to take the trade into new and emerging areas of mutual interest.

While Belgium business interests cover ports, construction, banking and finance, chemicals and fertilizers and solar energy, India would like to further make widespread base of its traditional existing export basket with more venture into IT and IT enabled products. The present paper traces out the trading relations between the two countries taking into account the historical data of various commodity groups. It further tries to build a prognosis about the future trade directions and would look into the efforts of the two countries towards diversifying its trade beyond diamonds.

Key Words: Precious Stones, diversification, CAGR, Belgium, India, bilateral trade

Introduction

Prior to 1973 when UK was not a member of European Union, India's trade with Western European countries was largely concentrated with England. This was primarily because of the UK's colonel relations with India. Geographical trade diversion of Indian merchandise in western Europe started in late seventies (Mathur,2010). Germany, Belgium, France, Netherlands and Spain were the first countries that attracted Indian merchandise. However, bilateral trade relations between India and western European countries started blooming towards the end of eighties.

** Dr. Mohammad Shafi is Associate Professor & Head, Department of Finance & Banking, Faculty of Business Administration, Jazan University, Kingdom of Saudi Arabia (KSA)*

Of all the countries in continental Europe, India's trade became more prominent with Germany and Belgium. After Germany, bilateral trade with Belgium is the largest. The annual trade turnover between the two countries was around 10 billion Euros in 2010. In European Union, Belgium is the second largest trading partner of India after Germany. And Belgium is the 5th largest importer of Indian merchandise after USA, China, Russia and Japan. Conversely, India is the second largest importer of Belgian goods after USA. (Ministry of Commerce and Industry, GOI, 2008).

In recent years the trade volumes between Belgium and India has been soaring. With a decline in bilateral trade in 2009, there was a sharp rebound of huge bilateral trade in 2010. From €7.1 billion during 2009, it has increased to €10.4 billion in 2010 marking a percentage increase of 46.5%. Indian exports to Belgium increased from €2.6 during 2009 to €3.6 billion – an increase of 38.5%. The increase in Belgian exports to India has always been robust. Its exports to India increased from €4.5 to €6.8 billion marking an increase of 51% in 2010. (Eurostat, 2010).

On bilateral investment front, Belgian Investment in Indian market has been quite far below than its capacity. Belgium is the 23rd largest investor in India and 9th largest within the European Union. However, the presence of Belgian FDI in India is relatively small as compared to its robust position in foreign trade (Ministry of Commerce & Industry, GOI,2008). Belgian FDI in India is still less than One Billion US Dollar, half of which came from 2008 onwards. Conversely, Indian Investment in Belgium is more than Belgian Investment in India. This has been possible as more Indian companies have taken over Belgian companies in the recent past and there are several Indian companies particularly in IT and software sector with sizeable presence in Belgium.

Statement of the Problem

The merchandise trade between India and Belgium has been steadily growing and there are a host of trade agreements in place to further groom the trade relations between the countries. Agreement on cooperation in the field of Science & Technology, November 2006, the Agreement on Avoidance of Double Taxation (DTAA), August 1997 and Bilateral Investment Protection Agreement (BIPA) signed between India and Belgium and

Luxembourg are overlooking the trade relations between the two countries. The EU regulatory framework provides a further cushion for further bonding.

Amidst a scenario characterized with blooming trade relations between the two countries, a stark reality emerges from the abysmal depths. The trade between the two countries is largely skewed towards gems and jewelry. According to trade figures 80% of the trade transacted between the two countries was on gems and jewelry (economic survey of India, 2006). Therefore there is an urgent need for diversification of trade to other commodity lines.

Literature Review

The reason underlying for favour of diversification lies in the portfolio theory. According to modern portfolio theory, diversifying one's portfolio of stocks helps spread risks between countries, currencies and markets. Putting all eggs in one basket is always more dangerous. Moving from a concentrated portfolio to a diversified one can produce the same returns for less risk. The key to reducing risks for the same return is that the more diversified portfolio contains assets that do not behave exactly alike, and so when one falls, another can offset it. Though the analogy is imperfect, one can apply this same reasoning to a Country's export portfolio. An export mix that is diversified across regions in which imports do not follow exactly the same path could result in lower volatility for a given rate of growth, compared with a concentrated export mix (Bhalla et al,2004) . It seems reasonable to assume that, all else equal, less volatility is better than more, as it allows businesses to plan and not get caught unprepared when exports fluctuate Significantly in either direction. If two countries' trade is largely skewed in one commodity line, it means there are more risk domains hovering around. A slight deviation in compliance, lack of proper specifications in product, a misunderstanding etc. can put the trade at complete halt. Moreover, diversification to other commodity lines promotes innovations and inventions, propels new skills and crafts and thus creates a multi sector economy. The multi-sector economy is always more shock proof to any global crises. In view of the above an attempt has been made to peep into the trade relations of the two countries keeping in view the following set of objectives.

Objectives of the study

The study is aimed:

- to study India's Trade with Belgium ,
- to locate and examine new product lines that would help in diversifying the hitherto diamond trade between the two countries,

- to suggest on the basis of findings of the study, various measures which would fillip and elevate trade relations with Belgium

Tools and Techniques

The present study is purely based on secondary data source. Most of the data have been retrieved from the official website of Directorate General of Foreign Trade of India (DGFT). The data used for the study has been retrieved as 2-digit code of grouped commodities. The other source of data information has been Economic Survey of India and Centre for Monitoring Indian Economy (CMIE), Government of India.

The instruments of analysis (the statistical tools) used for the study have been objectively selected to arrive at dependable results. The statistical methods of percentage comparisons, summary statistics such as averages, YoY growth and compound growth rates have been computed. To unravel growth rates of trade between India and Belgium, and also to examine commodity-wise growth rates in exports and imports, the exponential trend equation of $Y = ab^x$ has been fitted into the time series data from 1997-98 to 2004-05. The following formula has been used:

1. Exponential Trend Equation $y = ab^x$
2. Logarithmic form of the equation $\log y = \log a + x.\log b$
3. Corresponding normal equations

   $$\Sigma \log y = N.\log a + \log b.\Sigma x$$

   $$\Sigma x.\log y = \log a \,.\, \Sigma x + \log b.\ \Sigma x^2$$

4. Compound Growth Rate $[Gr = 100(b - 1)]$

The data pertaining to commodity Exports and Imports from Belgium retrieved from the Export and Import Data Bank of DGFT do actually belong to 99 major commodity groups codified as per ITC (HS) code, but due to the constraint of time and space, only major commodity groups were taken for research analysis. The selection of the major commodity groups was done objectively on the basis of their import and export value. Highly valued commodity groups were taken for research analysis. The selection, in this regard, was done separately for imported commodities and exported commodities. 24 commodity groups from the export basket and 17 commodity groups from import segment were finally chosen for analysis. The minimum export and import value for a commodity group to qualify for separate analysis was fixed at Rs. 100 crores. The remaining 75 commodity groups in exports and 82 commodity groups in imports were treated in aggregate, and separate analysis was conducted under the heading “Miscellaneous Group”.

The data for the purpose was taken from 1997-98 to 2004-05. The year 1997-98 (initial year for analysis) was purposely chosen as it was deemed that by then the liberalization policies in all areas particularly those concerning with foreign trade policies had started blooming. Thus the data selected was processed and with the use of regression analysis, Compound Annual Growth Rates (CAGR), of selected commodities (based on high value) in the import as well as in the export segment were computed. Besides, a comparative analysis was performed with regard to India’s export growth with Belgium in contrast to India’s export growth with world.

Trade with Belgium: An Analysis

Belgium is a fast emerging destination for Indian exports. Besides, iron and steel, capital goods, and chemical material and products, India imports huge quantity of pearls and precious stones especially rough diamonds from Belgium. Table 4.12 reveals that exports to Belgium have grown at the rate of 21.27% in the year 2002-03 over the previous year and correspondingly the total exports of India have also grown at almost same level (22.06%). Similarly, on the imports side, we observe a contrasting behaviour between growth in imports from Belgium and growth in total imports of India. While imports from Belgium had grown at 36.35% in 2002-03 over the previous year, total imports for India, during the same year, had grown at only 21.21%. Again, the percentage growth of imports from Belgium was only 1.70 percent in 2003-04, while as the total percentage growth of imports for India was 20.83%.

As far as India’s total trade is concerned (import/export), it had grown at a whopping 31.28% with Belgium in 2002-03 as compared to the relevant growth figure vis-à-vis total world trade, which is just 21.60%.The data in Table 4.12 further indicate that while the total trade with Belgium had grown at 18.71% in 2004-05 over the previous year, the total Trade of India with rest of world had grown at 30.64% in the same year (i.e. 2004-05) over the previous year. However, amid optimistic sentiment of growing trade with Belgium, the data provided in Table 4.12 gives a contrasting picture. The trade share of Belgium vis-à-vis India’s total trade is dropping with every passing year. It was 4.56% in 2000-01, dropped to

4.36% in 2000-01, jumped back to 4.71% in 2002-03 but again dropped to 4.07% in 2003-04 and further dipped to 3.70% in 2004-05.

Of all the items of export, Gems and Jewellery forms the maximum. The cut and polished diamonds and pearls exported to Belgium in the year 1996-97 were of the value of Rs. 2419.95 crores (62.38% of total exports to Belgium in that year). Again in the year 1997-98, the finished pearls exported to Belgium were of the value of Rs. 2750.54 crores (60.89%). Throughout the period under study, the value of finished Gems and Jewellery exported to Belgium were always above 60%, (64% , 63%, 61%, 61% of total exports to Belgium in the years from 1999-2000, 2000-01, 2001-02, 2002-03 in that order). However, the share of Gems and Jewellery exports to Belgium dropped in the years 2003-04 and 2004-05 valuing at Rs. 4845.86 crores (58.40%) and Rs. 6064.65 crores (55%) respectively. Apart from export of Gems and Jewellery, India also exports to Belgium readymade Garments, Cotton, Carpet & other floor coverings.

On the imports paradigm, it is again the Gems and Jewellery which forms the maximum chunk of imports from Belgium. Pearls and precious stones imported from Belgium amounted to Rs. 6699.65 crores (68.45% of total imports in 1996-97) which rose to 72.95% of total imports from Belgium in 1997-98 with absolute value of Gems and Jewellery reaching as high as Rs. 8576.74 crores in that year. The share of Gems and Jewellery imports from Belgium further increased to 76% in the year that followed (i.e. in 1998-99). It rose to 80.49% in 1999-2000, 77.85% in 2002-03, 78.83% in 2003-04 and in 2004-05; the absolute value of Gems and Jewellery imported from Belgium was Rs. 17981.50 crores, which was 80.42% of total imports from Belgium (Table 4.45). The other major imports from Belgium are Iron and Steel, Nuclear Reactors, Organic Chemicals.

The value addition executed by Indian diamond shapers on the rough pearls and precious stones imported from Belgium is renowned world over. However, it is astonishing to observe that trade with Belgium has never been favorable. The reason could be that the imported rough diamonds from Belgium after cutting and polishing find other export destinations as well. Belgium. However, trade with Belgium is heavily skewed to diamonds, precious, semi-precious stones etc. The Table 4.53 relating to commodity imports from Major Trading Partners of EU and their percentage share in total imports reveals that import of Gems and Jewellery from all major trading partners of EU i.e. Belgium, Germany, France, Netherlands, Italy, Spain and Belgium account for more than 40% of imports in most of the years under study. The compound Growth Rate (CAGR) of Gems and Jewellery to major trading partners of EU based on the data from 1996-97 to 2004-05 is 11.31% (R^2 = 94.7%).

The CAGR of import of Gems and Jewellery is only 4.7% (R^2 = 1.7%). Further, the export of polished diamonds, precious stones, account for 11 to 13 percent of total exports during all the years from 1996-97 to 2004-05.

Conclusion and Suggestions

The present scenario of trade relations between Belgium and India is quite robust. Trade volumes have been touching new horizons. Belgium has been a trade centre for many decades and its important city Antwerp has been a hub trading activity. Antwerp-Jaipur and London formulates the triangle of diamond trade. Belgium has been a strong propagator of free trade.. Belgium still occupies an enviable global trade position (Singh, 2001).
The following conclusions drawn from the preceding study and the suggestions thereof are put forth for policy implication purposes.

1. **Diversification is indispensable**

As the trade between the two countries is more concentrated on gems and jewelry to the extent of 75-80%, therefore, there is dire need for diversification. There is no rationale for keeping the trade hovered around one commodity group. There has to be sustained efforts to diversify trade beyond diamonds. Concentrated trade on a single commodity group is always susceptible to many risks including political and market risks.

2. **The present export basket of the two countries:**

The major items of exports of India to Belgium are: natural pearls, iron and steel, organic chemicals, apparels, marine products, tobacco and plastics and the exports of Belgium to India are: Iron and Steel, nuclear reactors, plastic articles, electronic machinery, optical and surgical instruments. This trade basket needs to be further widened in the light of the fact that India has developed core competency in sectors like IT and IT Enabled products, Electrical Machinery and Software Technology. Similarly, Belgium business interests in India cover ports, dredging, construction, banking and finance, electronics and software, chemicals and fertilizers, solar energy and biotechnology.

3. **Importance of Belgium**

The importance of Belgium in the continental Europe is always to be seen through the prism of it being the headquarters of two significant International organizations i.e., European Union and NATO(North American Treaty Organisation). Belgium's position in the international affairs is one that counts on its immaculate stand on global issues of all types and its say in the global foras can hardly be under-estimated. In view of the venerated International reputation that the country has gained, it is quite necessary to continue to strengthen the chords of relationship.

4. **Economic Joint Commission Meeting**

The Economic Joint Commission Meeting (EJCM) between India and Belgium-Luxembourg Economic Union (BLEU) was held in Brussels in 2009 after a gap of eight years. The two sides reviewed the ongoing cooperation and discussed possibility of further cooperation in the fields of transport, tourism, biotechnology and pharmaceuticals, ICT, aeronautics, investment and market access matters and a host of other issues. The meeting provided an excellent opportunity to review the present status of economic relationship and also to focus on the future areas of bilateral cooperation. Such meetings should continue in future so that trade and cooperation continues.

5. Trade in Services

India believes that trade in services is another sector that has the potential to create mutually beneficial opportunities and Belgium with changing demographics is throwing up opportunities.

The following long term policy programmes are put forth for augmenting the trade relations between the two countries and with the larger EU.

1. **Organic Presence**. Establishing an organic presence in Belgium through the creation of chain outlets in the form of marketing office, branch office for ensuring speedy transmission of information on latest market trends and potential customers. This would result in greater Indian competitive strength.
2. **Hormonisation of Standards.** The fundamental contention between the EU and the developing countries is the Standards. Under the EU-India Standards and Quality Programme, modernization of Indian testing laboratories took place (Fontaine,2005). India should ensure to export only that merchandise which would

bear those standards and certification as is acceptable to the requirements under Belgium

3. **India as Brand.** Indian Industry associations particularly CII and ASSOCHAM should make coherent efforts to create a brand name for India in Belgium which would be ensured only through quality products and services.
4. **Conducting Industry Exhibitions.** Industry exhibitions should conducted in major cities of Belgium, to promote the latest Indian product lines and Indian industry should also participate in the trade fairs organized by Belgium in major cities.
5. **Need for enhanced role for Indian High Commission.** The economic and trade section in the Indian high commission need to upgraded by further augmentation of the staff for collecting relevant information about domicile changing trade laws having implication for exports from India into Belgium
6. **Revamping Trading Houses.** The export trading houses should be revamped to ensure more focus on the opportunities offered by Belgium market

The economic well being of countries is intrinsically linked to the health of the global economy and the importance of strengthening partnership is well recognized and the countries have to work towards this.

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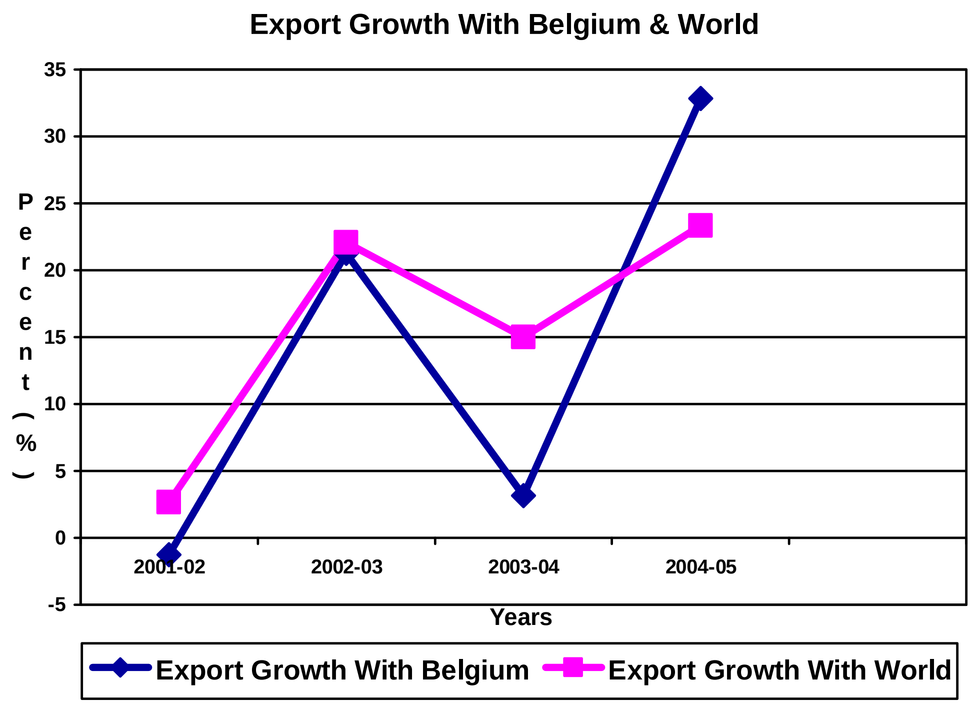
Export Growth With Belgium & World
35
30
25
20
15
10
5
0
-5
Percent (%)
2001-02
2002-03
2003-04
2004-05
Years
Export Growth With Belgium
Export Growth With World

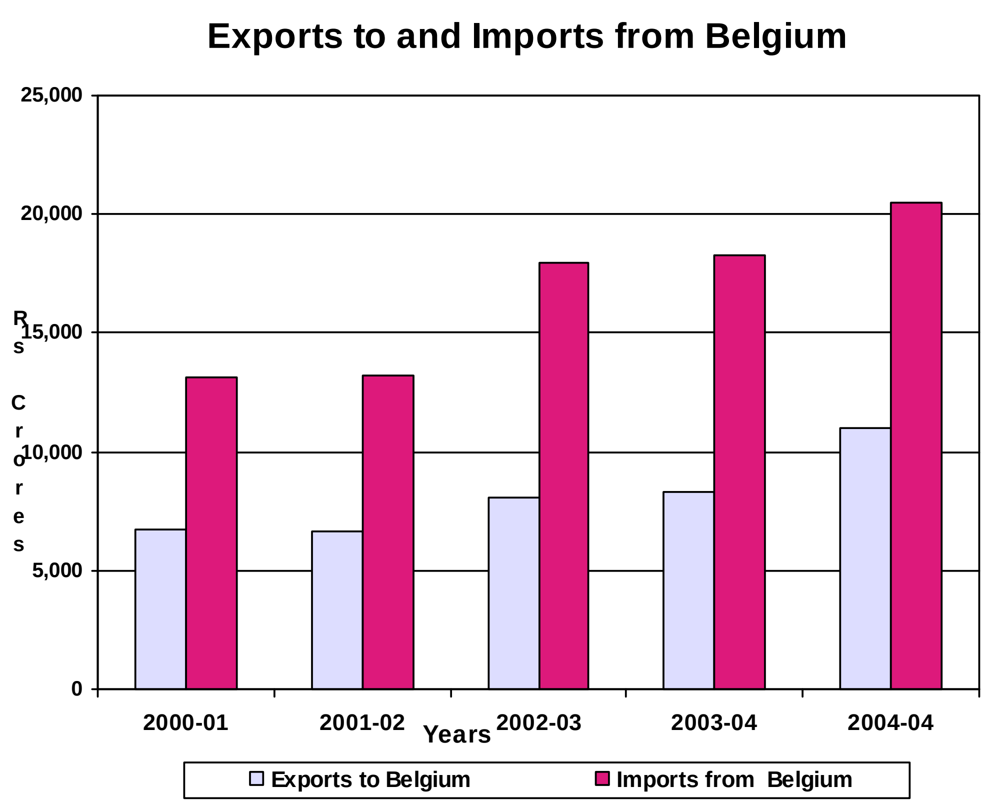
Exports to and Imports from Belgium
25,000
20,000
15,000
10,000
5,000
0
Rs Crores
2000-01
2001-02
2002-03
2003-04
2004-04
Years
Exports to Belgium
Imports from Belgium

Table 1

India's Exports to EU: Percentage share of member countries

Country	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**
Austria	0.75	0.75	0.68	0.73	0.64
Belgium	**13.78**	**13.71**	**14.02**	**12.50**	**14.5**
Chezh Rep.	0.35	0.40	0.48	0.19	0.15
Cyprus	0.29	0.28	0.19	0.19	0.15
Denmark	1.63	1.49	1.55	1.67	1.66
Estonia	0.03	0,03	0.03	0.04	0.05
Finland	0.54	0.68	0.60	0.77	0.78
France	9.55	9.32	9.06	8.86	9.28
Germany	17.87	17.64	17.78	17.61	15.43
Greece	1.06	1.05	1.25	1.38	1..69
Hungary	0.39	0.46	0.40	0.63	0.60
Ireland	0.96	1.00	1.14	1.04	1.17
Italy	12.26	11.90	11.45	11.97	12.58
Latvia	0.22	0.06	0.07	0.11	0.09
Lithuania	0.08	0.06	0.08	0.12	0.17
Luxembourg	0.05	0.04	0.07	0.09	0.06
Malta	0.09	0.11	0.27	0.81	0.18
Netherlands	8.24	8.52	8.84	8.92	8.85
Poland	0.80	1.06	0.89	0.92	0.96
Portugal	1.37	1.45	1.36	1.17	1.21
Slovak Rep.	0.09	0.08	0.09	0.11	0.13
Slovenia	0.15	0.28	0.20	0.25	0.35
Spain	6.24	6.68	6.84	6.94	7.65
Sweden	1.65	1.52	1.48	1.52	1.13
UK	21.56	21.31	21.07	20.93	20.27
Total	100.00	100.00	100.00	100.00	100.00

Source: Computed from the data from ' India's Exports by countries –Commodities; DGFT, Government of India, Ministry of Commerce, Various Issues from 2001 to 2005

Table 2

India's Imports from EU: Percentage share of member countries

Country	2000-01	2001-02	2002-03	2003-04	2004-05
Austria	0.65	0.73	1.28	1.34	1.37
Belgium	**26.97**	**26.10**	**29.04**	**26.52**	**23.97**
Cyprus	0.01	0.05	0.02	0.01	0.02
Czech Republic	0.34	0.36	0.66	0.74	0.89
Denmark	1.33	1.33	1.12	1.50	1.39
Estonia	0.00	0.05	0.00	0.02	0.70
Finland	1.94	1.53	1.55	1.80	2.01
France	6.62	7.97	8.56	7.27	9.92
Germany	16.53	19.16	18.81	19.46	20.79
Greece	0.20	0.27	0.17	0.31	0.12
Hungary	0.14	0.22	0.16	0.00	0.00
Ireland	0.67	0.80	0.76	0.87	0.96
Italy	6.80	6.65	6.35	7.40	7.08
Latvia	0.04	0.00	0.02	0.00	0.00
Lithuania	0.01	0.00	0.04	0.07	0.09
Luxembourg	0.04	0.06	0.15	0.29	0.05
Malta	0.00	0.00	0.00	0.00	0.19
Netherlands	4.11	4.40	3.01	3.57	4.09
Poland	0.40	0.29	0.30	0.32	0.47
Portugal	0.11	0.13	0.11	0.09	0.09
Slavok Republic	0.06	0.11	0.08	0.07	0.11
Slovenia	0.20	0.24	0.55	0.40	0.11
Spain	1.33	1.59	1.38	1.72	1.99
Sweden	2.23	3.80	4.04	4.66	4.90
UK	29.77	24.21	21.72	21.57	18.69
Total	100.00	100.00	100.00	100.00	100.00

Source: Computed from the data ' India's Imports by Countries – commodities; Directorate General of Foreign Trade, Govt. of India, Ministry of Commerce, Various Issues.

Table 3

Import -Export Trade with Belgium, Annual Growth Rates, % Share, Comparison with India's Total Foreign Trade, Trade Balance with *Belgium*, India's Total Trade Balance

Country: BELGIUM

Values in Rs. Lacs

Year→	**2000-2001**	**2001-2002**	**2002-2003**	**2003-2004**	**2004-2005**
EXPORT	671,814.44	663,213.31	804,250.25	829,756.13	1,102,064.75
%Growth		-1.28	21.27	3.17	32.82
India's Total Export	20,357,102.00	20,901,798.00	25,513,728.00	29,336,674.00	36,187,916.00
%Growth		2.68	22.06	14.98	23.35
%Share	3.30	3.17	3.15	2.83	3.05
IMPORT	1,311,164.63	1,317,726.63	1,796,398.75	1,826,986.38	2,051,864.38
%Growth		0.50	36.33	1.70	12.31
India's Total Import	23,087,276.00	24,519,972.00	29,720,586.00	35,910,764.00	49,053,168.00
%Growth		6.21	21.21	20.83	36.60
%Share	5.68	5.37	6.04	5.09	4.18
TOTAL TRADE	1,982,979.06	1,980,939.94	2,600,649.00	2,656,742.50	3,153,929.13
%Growth		-0.10	31.28	2.16	18.71
India's Total Trade	43,444,378.00	45,421,770.00	55,234,314.00	65,247,438.00	85,241,084.00
%Growth		4.55	21.60	18.13	30.64
%Share	4.56	4.36	4.71	4.07	3.70
TRADE BALANCE	-6,39,350.19	-654513.32	-992148.50	-997230.25	-949499.63
India's Trade Balance	-2,730,174.00	-3,618,174.00	-4,206,858.00	-6,574,090.00	-12,865,252.00

Source: Compiled from the data India's Total Trade with All countries, Directorate of Foreign Trade, Ministry of Commerce, Government of India

Table 4

Statistical Analysis (Export Growth Rates with EU Member countries)

Country	Log y = log a + log bx	β co-efficient Anti log Beta	CAGR (growth Rate) (b-1) x100	SE (Standard Error)	R^2
Austria	Log y=2.5801+0.0248x	1.0587	5.87	0.03127	86.3
Belgium	**Log y=3.8345+0.0494x**	**1.0949**	**9.49**	**0.02984**	**95.9**
Cyprus	Log y=2.1038+0.0007x	1.0018	0.18	0.06013	0.2
Czech Republic	Log y=2.2970+0.0697x	1.1721	17.21	0.07032	90.8
Denmark	Log y=2.9368+0.2922x	1.0695	6.95	0.0694	64.1
Estonia	Log y=1.3318+0.0414x	1.1001	10.00	0.1452	44.9
Finland	Log y=2.5280+0.0462x	1.1124	11.24	0.07713	78.3
France	Log y=3.6598+0.0444x	1.1078	10.78	0.043100	91.4
Germany	Log y=3.9561+0.0281x	1.0668	6.68	0.04276	84.2
Greece	Log y=2.7810+0.0577x	1.1422	14.22	0.09934	77.2
Hungary	Log y=2.3421+0.067x	1.1692	16.92	0.07578	88.9
Ireland	Log y=2.6850+0.0630x	1.15611	15.61	0.05711	92.4
Italy	Log y=3.7743+0.0416x	1.10075	10.71	0.03942	91.8
Latvia	Log y=1.6745+0.02610x	1.0867	8.67	0.15760	34.4
Lithuania	Log y=1.4249+0.876x	1.2236	22.36	0.12550	83.0
Luxem-bourg	Log y=1.4403+0.0794x	1.2006	20.06	0.11070	83.7
Malta	Log y=1.9626+0.1013x	1.2628	26.28	0.31230	51.3
Netherlands	Log y=3.6375+0.0417x	1.1009	10.09	0.03340	94.0
Poland	Log y=2.6734+0.0398x	1.09616	9.61	0.03416	93.2
Portugal	Log y=2.804+0.0415x	1.10044	10.64	0.03393	93.8
Slavok Republic	Log y=1.6054+0.0883x	1.22560	22.56	0.10030	88.6
Slovenia	Log y=1.9511+0.1009x	1.26181	26.18	0.13160	85.5
Spain	Log y=3.4922+0.06624x	1.16476	16.47	0.03647	96.7
Sweden	Log y=2.8805+0.0284x	1.06760	6.76	0.03389	87.6
UK	Log y=4.0232+0.0374x	1.0900	9.00	0.02923	94.3

Source: Computed the Regression Analysis on the basis of the export data of the all EU countries obtained from the Official Website of DGFT, ministry of Commerce, Government of India.

Table 5
Statistical Analysis (Imports Growth Rates with EU Member countries)

Country	Log y=log a +log bx	β co-efficient Anti log Beta	CAGR (growth Rate) (b-1) x100	SE (Standard Error)	R2
Austria	Log y=2.6674+0.0831x	1.21087	21.08	0.11070	84.9
Belgium	**Log y=4.1647+0.0312x**	**1.074553**	**7.45**	**0.05642**	**75.4**
Cyprus	Log y=0.9962+0.08051x	1.203093	20.36	0.26620	48.3
Czech Republic	Log y=2.4235+0.0809x	1.204924	20.49	0.13520	78.2
Denmark	Log y=2.80216+0.0571x	1.140748	14.07	0.07309	86.0
Estonia	Log y=0.4591+0.0322x	1.077010	7.70	0.49740	4.0
Finland	Log y=2.95371+0.0434x	1.106462	10.64	0.08306	73.2
France	Log y=3.6064+0.0515zx	1.125900	12.59	0.07271	83.4
Germany	Log y=4.0109+0.0334x	1.080027	8.00	0.07187	68.4
Greece	Log y=2.02614+0.0382x	1.091975	9.19	0.17230	33.0
Hungary	Log y=1.88963+0.079x	1.204813	20.48	0.0589	93.7
Ireland	Log y=2.52766+0.1047x	1.222690	27.26	0.04507	97.6
Italy	Log y=3.59893+0.0163x	1.051080	5.10	0.08395	39.9
Latvia	Log y=1.00245-0.1292x	0.742215	-25.44	0.40510	50.5
Lithuania	Log y=1.0200+0.1975x	1.574400	57.4	0.50930	60.0
Luxem-bourg	Log y=1.4751+0.1224x	1.325800	32.58	0.32630	64.5
Malta	Log y=0.6810+0.0404x	2.535300	153.53	0.99510	1.6
Netherlands	Log y=3.3332+0.0257x	1.061000	6.10	0.06550	60.7
Poland	Log y=2.26856+0.0440x	1.106630	10.66	0.09790	66.9
Portugal	Log y=1.75791+0.0309x	1.073790	7.37	0.08377	57.7
Slavok Republic	Log y=1.77056+00017x	1.003945	0.39	0.20020	0.1
Slovenia	Log y=1.9149+0.1326x	1.357080	35.70	0.28390	68.6
Spain	Log y=2.93326+0.0424x	1.102770	10.27	0.10020	64.3
Sweden	Log y=3.2225+0.0863x	1.220100	22.01	0.07464	93.0
UK	Log y=4.10168+0.0231x	1.054710	5.47	0.04360	73.0

Source: Computed the Regression Analysis on the basis of the export data of the all EU countries obtained from the Official Website of DGFT, ministry of Commerce, Government of India.

Table 6
India's Exports to Belgium

COMMODITIES	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Gems and Jewellery	2419.95	2750.54	3484.08	3772.41	4153.75	4111.62	4964.28	4845.86	6064.65
Readymade garments & other clothing accessories	229.66	266.31	348.44	382.71	450.41	488.72	505.14	508.59	538.55
Fish & other Aquatic Invertebrates	76.88	30.29	47.47	61.91	89.13	76.01	234.37	288.94	315.65
Cotton	228.08	215.68	206.36	219.48	239.23	156.22	195.32	129.56	120.57
Organic chemicals	68.29	92.55	105.78	125.25	128.18	134.59	144.71	144.58	204.42
Man-Made staple fibres	81.42	67.60	55.69	72.35	109.58	80.80	132.22	115.38	147.18
Tabacco & manufactured tabacco substitutes	48.59	104.43	89.00	96.28	61.99	114.25	114.12	95.77	117.44
Iron & steel and its articles thereof	54.69	181.43	125.15	57.31	143.62	118.39	172.92	226.09	1520.86
Salt,sulphar, earths, and stones	56.44	44.61	58.49	74.06	77.84	93.49	92.74	93.40	94.48
Engineering Goods including Electrical Machinery	15.12	26.24	17.93	34.54	101.09	83.88	90.12	147.79	102.19
Coffee, Tea, Mate, & spices cereals	37.39	67.16	101.57	82.79	67.48	68.67	89.25	89.26	49.21
plastics and articles thereof	16.44	34.35	57.27	63.28	69.59	68.01	87.92	97.64	194.37
Nuclear Reactors,Boilers, etc	17.20	23.29	29.97	43.84	56.03	104.10	77.80	104.58	158.83
Articles of leather & Raw hides	30.56	41.75	58.83	47.14	62.02	80.34	77.07	87.83	91.19
Articles of stone, plaster, cement, Asbestos	12.66	19.50	25.13	27.49	36.05	41.73	58.04	69.19	61.75
Edible vegetables & edible fruits, nuts	15.85	18.92	23.94	28.61	43.66	43.13	51.05	60.63	78.60
Tanning & Dyeing extracts	25.49	26.90	19.06	19.33	26.44	31.25	39.97	70.51	72.58
pharmaceutical products	42.90	34.08	32.06	27.11	25.62	30.81	39.19	37.86	24.59
Footwear & other such Articles	12.46	8.72	16.31	22.08	28.00	35.10	36.64	40.06	78.73
Carpet & other floor coverings	54.28	53.61	55.19	48.82	37.50	38.94	35.10	46.61	43.84
Cereals	3.00	20.52	25.54	24.25	23.60	20.25	28.43	33.42	36.85
Inorganic chemicals	6.01	7.75	7.61	11.12	14.88	16.37	16.54	15.03	19.85
Rubber and Articles of Rubber	6.51	5.25	9.63	5.52	7.97	10.26	15.65	37.38	36.06
Other Miscellaneous Goods	319.11	375.20	417.70	578.70	664.48	585.20	743.91	911.60	848.20
Total Exports	**3878.98**	**4516.68**	**5418.20**	**5926.38**	**6718.14**	**6632.13**	**8042.50**	**8297.56**	**11020.64**

Source: Computed from the data' India's Exports by Countries – commodities' obtained from the Official Website of Directorate General of Foreign Trade, Govt. of India, Ministry of Commerce, Various Issues.

Table 7

Imports from Belgium (Rs. Crores)

COMMODITIES	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
1. Inorganic chemicals	26.29	29.53	30.58	29.19	31.91	33.27	34.20	27.08	46.30
2. Organic chemicals	91.59	110.41	119.96	120.70	118.05	109.23	138.32	200.07	230.24
3. Pharmaceutical products	15.79	36.87	83.51	50.38	59.63	33.19	25.59	102.47	103.70
4. Photographic & cinematographic goods	50.38	61.26	63.84	54.72	55.22	69.94	66.74	65.04	73.10
5. Miscellaneous chemical products	52.21	44.85	54.83	44.95	41.14	46.83	61.95	105.79	83.32
6. Plastic and articles thereof	88.90	87.67	78.38	97.45	92.81	109.14	135.78	201.19	197.85
7. Rubber and articles thereof	57.56	18.23	9.25	13.64	14.23	25.18	29.61	30.54	38.56
8. Paper and paper board	11.78	11.94	8.71	15.21	13.61	13.87	13.00	21.66	32.58
9. Gems and Jewellery	6699.65	8576.74	10661.90	14374.01	11761.50	11846.09	15614.57	15843.67	17981.50
10. Iron and Steel	267.07	236.63	158.19	190.71	156.37	137.09	215.53	284.80	436.49
11. Nuclear Reactors	225.52	285.02	253.08	183.07	249.78	148.82	244.94	328.74	539.90
12. Engineering goods	36.27	56.80	57.44	66.47	74.00	49.30	176.43	147.09	123.64
13. Aircraft, spacecraft and parts thereof	0.72	9.11	0.17	0.80	0.86	30.29	768.51	380.05	19.67
14. Optical, surgical instruments	13.67	20.01	37.99	36.05	58.01	58.53	52.20	71.64	61.80
15. Capital goods	63.72	68.11	175.39	58.51	38.10	130.18	9.95	29.11	49.66
16. Other misc. goods	218.44	232.69	309.63	616.09	346.43	336.94	576.67	430.86	500.34
Total	**7,919.56**	**9915.87**	**12102.85**	**15951.95**	**13111.65**	**13177.27**	**17963.99**	**18269.80**	**20518.64**

Source: Computed from the data' India's Imports by Countries – commodities' obtained from the Official Website of Directorate General of Foreign Trade, Govt. of India, Ministry of Commerce, Various Issues.