AN ECONOMIC ANALYSIS INDIA'S IMPORTS DURING POST REFORM PERIOD

N.SHEELADEVI

Abstract: The imports of food capital goods the raw materials of industry and certain essential consumer goods and no exchange restriction were placed upon their imports consumer goods, while others in the context of the economy of India were regarded as totally unessential and luxury imports were altogether prohibited. In this study for the analysis is 10 years from 2000 to 2010. The reason for choosing this time period because it covers post reform periods. The study used only secondary data for analytical purpose and the data are not originally collected rather obtained from published sources from various issues of Economic Survey, Foreign Trade Review, RBI Report on currency, finance and RBI Bulletin. Various statistical and Econometric tools have been used for analyzing the data to study the trends and pattern of imports and impact of new economic policy on imports. Some of the important tools are linear trend analysis, semi log model.

Keywords: Imports, Simple Linear Regression, Semi Log Linear Regression.

Introduction: In many developing countries like India, the role of foreign trade in economic development is considerable and are ultimately connected. The trade can stimulate growth when import increased higher than export.

Before 1947 when India was the colony of the British, the pattern of trade was typically colonial. India was the supplier of raw materials to the industries to the countries like England and an importer of manufactured goods. This dependence of foreign countries for manufacturers did not permit industrialization at home rather as a result of competition from British manufacturers.

The colonial pattern of trade had to be changed to suit the heads of developing economy. An economy which decides to embark on a programme of development is required to extend its productive capacity at a frustrate. The imports of machinery and equipment cannot be produced in the initial stages at home. But there are essential imports which either help to create new capacity in the other lines of production are called developmental import. A developing economy is also required to import consumer goods which are in short supply at home during the period of Industrialization. Such imports are anti - inflation because they reduce scarcity of consumer goods.

One example of such imports is the food grain imports in India. The independence period helped to arrest the rice at home. It is therefore, during the early years of development, import had to be increased at faster rates. It is natural that the balance of the payment in such situation will firm heavily against development country. In order to meet gown's debt in view of in elastic imports a developing must increase imports.

The rapid depiction of sterling balance soon after the independence, for the Government of India, to follow a restrictive import policy. Broadly speaking that policy consisted of three import categories. a. Free, b. Restricted and c. Prohibited.

The imports of food capital goods the raw

materials of industry and certain essential consumer goods and no exchange restriction were placed upon their imports consumer goods, which were not absolutely essential, while others in the context of the economy of India were regarded as totally unessential and luxury imports were altogether prohibited.

India adopted an inward looking development strategy, after the independence wherein imports substituted a major element of both trade and industrial policies, import substitution was the prime objective of India's trade policy till the mid 1970 to 2005. This policy was largely based on the imports and experts Act of 1947 and the imports trade control order of 1955. Import substitution was significant in the area of industrial machinery, paper, chemical, iron and steel and other metals.

Review Of Literature: This chapter intends to review some important research work which was undertaken on India's import since new economic policy from 2000-2010. .Murthy and .Sastry[1], Nayyar[2], Bishpuria Gupta[3], Rao[4], .Neoy[5], Singh[6], Anubhuti Shukla[7], Khan[8], Susendar Sen[9], Reddy[10], Reddy[11], Chalapati Rao, Murthy[12], Kannan[13], Rao[14], Bhaskara Raw[15], Kocher[16], Bhattacharyya[17], Sidharthan[18], Sharma[19], Bharathi Kamath[20], Anubhuti shukla[21], Wadhva[22] in these papers analysed the import trade balances, foreign trade is largely influenced by income and price, positive link between import liberalization and export promotion, income and the price elasticity for exports and imports, the balance of payment crisis, trade instability both in respect of export and imports for India, Indias foreign trade largely influenced income and price, the trade off effect between the export promotion and the import substitution strategies, and the relationship between the export growth and the import intensity.

Methodology: Any serious and scientific study requires a well know way to solve the research problem. It will try to assure the authenticity of the work. In this study for the analysis is 10 years from 2000 to 2010. The reason for choosing this time period because it covers post reform periods. The study used only secondary data for analytical purpose and the data are not originally collected rather obtained from published sources. The data were collected from various sources, such as, various issues of Economic Survey, Foreign Trade Review, RBI Report on currency, finance and RBI Bulletin. Various statistical and Econometric tools have been used for analyzing the data to study the trends and pattern of imports and impact of new economic policy on imports. Some of the important tools are linear trend analysis, semi log model.

India's Imports Items during 2000-2010: India's imports could be divided into the bulk imports and the non bulk imports. Bulk imports could further be subdivided into three categories of imports such as i. petroleum, crude and other petroleum products. ii. bulk consumption goods which comprise of careals and pulses, edible oils and sugar, iii. Other bulk items compre fertilizers, non-ferrous metals, paper boards, rubber, pulp and waste paper and metallic oars, iron and steel and the like. The following table 4.1 presents India's bulk and Non-bulk imports during the period 2000-2010.

Bulk Imports: The above table 4.1 presents India's bulk and non-bulk imports during the period 2000-2001. The trend co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -13906.17 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased from the level of 9.487 per cent per annum on an average during the period. Further, the

compound growth rate of the fertilizers had increased from the level of 28.60 per cent per year on an average during the period.

Table-4.1 Trend and Growth rate of Bulk Imports									
year	**model**	**A**	**B**	**SE**	**t**	**sig**	**R^2**	**R^{T_2}**	**CGR**
	Linear	14517.729	-13906.17	100059.92	-1.382	.2042	.90928	.89794	
	Semi log	.247366	9.487	.112042	84.676	.0000	.95911	.95400	28.60

Bulk Imports of petroleum, crude and petroleum products: The table 4.2 discloses India's bulk imports, which consist of petroleum, crude and petroleum products, bulk consumtions goods and other bulk items. The trend co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -8571.72 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased from the level of 9.172155 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 27.230 per cent per year on an average during the period.

Table-4.2 Trend and Growth rate of Bulk Imports of Petroleum, Crued and Petroleum Products									
year	**model**	**A**	**B**	**SE**	**T**	**sig**	**R^2**	**R^{T_2}**	**CGR**
	Linear	9905.114	-8571.72	6760.615	-1.268	.2405	.91174	.90071	
	Semi log	.240832	9.172155	.116969	78.415	.0000	.95327	.94743	27.230

Imports of Bulk Consumption Goods: The trend co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of 341.626 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased from the level of 7.215361per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 17.660 per cent per year on an average during the period.

Table-4.3 Trend and Growth rate of Imports of Bulk Consumption Goods									
year	**model**	**a**	**B**	**SE**	**t**	**sig**	**R^2**	**R^{T_2}**	**CGR**
	Linear	623.773	341.626	763.0313	.448	.6662	.76282	.73317	
	Semi log	.162635	7.215361	.115114	62.680	.0000	.90571	.89393	17.660

Other Bulk Items: The trend co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -5676.060 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased from the level of 7.73828 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 34.051 per cent per year on an average during the period.

Table-4.4 Trend and Growth rate of Other Bulk Items

year	model	a	B	SE	t	sig	R^2	R^{T_2}	CGR
	Linear	3988.8381	-5676.060	3622.7084	-1567	.1558	.85368	.83539	
	Semi log	.293052	7.73828	.165297	46.814	.0000	.93799	.930241	34.05

Cereals and its preparations: The above table 4.5 presents India's import of bulk consumptions goods for the period 2000-2001 to 2009-2010. The trend Co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -44.173 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased from the level of 2.38778 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 27.879 per cent per year on an average during the period.

Table-4.5 Trend and Growth rate of Cereals and its Preparations

year	model	A	B	SE	t	sig	R^2	R^{T_2}	CGR
	Linear	26.8078	-142.732	-.309	.7649	.14513	.03827	-	
	Semi log	.245918	2.38778	.60779	3.929	.0044	.44067	.37035	27.879

Edible Oils: A fluctuating trend had been exhibited in respect of the imports of edible oils. The trend Co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of 684.960 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased from the level of 7.0580 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 13.259 per cent per year on an average during the period.

Table-4.6 Trend and Growth rate of Edible Oils									
year	**model**	**A**	**B**	**SE**	**t**	**sig**	**R^2**	**R^{T_2}**	**CGR**
	Linear	333.6836	684.960	258.3847	1.296	.2310	.65745	.61463	
	Semi log	.124508	7.0580	.1477	47.763	.0000	.77358	.74527	13.259

Pulses: The trend co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -78.953 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased to the level of 5.2248 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 25.736 per cent per year on an average during the period.

Table-4.7 Trend and Growth rate of Pulses									
year	**model**	**a**	**B**	**SE**	**t**	**sig**	**R^2**	**R^{T_2}**	**CGR**
	Linear	167.2824	-78.953	209.019	-.378	.7155	.75505	.72443	-
	Semi log	.229021	5.2248	.314673	16.604	.0000	.71825	.68303	25.736

Sugar: During the study period the imports of sugar had exhibited from the trend Co-efficients of the imports of the sugar items were found to be statistically significant at the 5 per cent level for the post- reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that sugar items had increased from the level of -220.20 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased to the level of 1.389138 per cent per annum on average during the period. Further, the compound growth rate of the sugar items had increased from the level of 36.229 per cent year on an average during the period

Table-4.8 Trend and Growth rate of Sugar									
year	**model**	**a**	**B**	**SE**	**t**	**sig**	**R^2**	**R^{T_2}**	**CGR**
	Linear	72.49	-220.20	230.95	-0.95	0.32	0.23	-	
	Semi log	0.30	1.38	1.58	0.877	0.4059	0.15	0.49	36.22

Fertilizers: The trend Co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -2381.140 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased to the level of 5.72186 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 40.833 per cent per year on an average during the period.

Table-4.9.1 Trend and Growth rate of fertilizers									
year	model	A	B	SE	t	sig	R^2	R^{T2}	CGR
	Linear	1074.6618	-2381.140	1871.453	-1.272	0.2390	.61344	.56512	-
	Semi log	0.342408	5.72186	0.282949	.0000	0.87574	0.86021	0.86021	40.833

Non –Ferrous Metals: The trend Co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -500.440 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased to the level of 5.934005 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 29.343 per cent per year on an average during the period.

Table -4.9.2 Trend and Growth Rates of Non –Ferrous Metals									
year	model	a	B	SE	t	sig	R^2	R^{T2}	CGR
	Linear	468.5709	-500.440	616.6953	-.811	.4406	.73533	.70225	-
	Semi log	.257304	5.934005	.173851	34.133	.0000	.91336	.90253	29.343

Paper: The trend Co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of 108.9066 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased from the level of 5.79615 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 18.728 per cent per year on an average during the period.

Table -4.9.3 Trend and growth rates of Paper									
year	model	a	B	SE	t	sig	R^2	R^{T2}	CGR
	Linear	154.433	108.9066	105.421	1.033	.3318	.91172	.90068	-
	Semi log	.171667	5.79615	.091655	63.239	.0000	.94408	.93709	18.728

Crude Rubber: The trend Co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -64.220 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased to the level of 4.71924 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had

increased from the level of 25.905 per cent per year on an average during the period.

Table -4.9.4 Trend and Growth Rates of Crude Rubber

year	model	A	B	SE	t	sig	R^2	R^{T_2}	CGR
	Linear	100.8527	-64.220	51.47169	-1.248	.2474	.94865	.94224	-
	Semi log	.23036	4.71924	.079706	59.208	.0000	.97573	.97269	25.905

Pulp: The trend Co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of 152.3466 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased to the level of 5.468516 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 14.876 per cent per year on an average during the period.

Table -4.9.5 Trend and Growth Rates of Pulp

year	model	A	B	SE	t	sig	R^2	R^{T_2}	CGR
	Linear	72.2078	152.3466	22.110346	6.890	.001	.98089	.97850	-
	Semi log	.138691	5.468516	.036817	148.531	.0000	.98557	.98376	14.876

Metalliferrous Ores: The trend Co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -1303.420 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased to the level of 6.301404 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 35.711 per cent per year on an average during the period.

Table -4.9.6 Trend and Growth Rates of Metalliferrous Ores

year	model	A	B	SE	t	sig	R^2	R^{T_2}	CGR
	Linear	1008.7763	-1303.420	-1.372	.2072	.84444	.82499	.85183	-
	Semi log	.305360	6.301404	.217628	28.955	.0000	.90453	.89260	35.711

Iron and Steel: The trend Co-efficients of the imports of the fertilizers were found to be statistically significant at the 5 per cent level for the post-reform period. The R^2 values were also found to be satisfactory. The trend co-efficients had also revealed that fertilizers had increased from the level of -1688.126 millions of US dollars per annum on an average during the post-reform period. Its growth rate had also increased to the level of 6.179547 per cent per annum on an average during the period. Further, the compound growth rate of the fertilizers had increased from the level of 38.925 per cent per year on an average during the period.

Table -4.9.7 Trend and growth rates of Iron and Steel									
year	**model**	**A**	**B**	**SE**	**t**	**sig**	**R^2**	**R^{T_2}**	**CGR**
	Linear	1109.3448	-1688.126	788.405	-2.141	.0647	.90502	.89314	-
	Semi log	.328771	6.179547	.186950	33.054	.0000	.93704	.92917	38.925

Conclusion: India had come a long way from the days of crisis of the early 1990s. Its pragmatic and gradual approach to trade reform seemed to have rewarded us reasonably well. India had emerged almost unscathed from the crises unlike east Asian countries. These are strong reasons to believe that India would certainly achieve a higher growth in the decades to come.

References:

1. V.N.Murthy and V.K.Sastry, "Flasticies of Demand for Certain Indian Import and Exports Sankya", May 1951.
2. Nayyar, Import and Export Policy Regime of Substantial Freedom, Yojna, May 31, 1992, Pp.21-22.
3. Bishpuria Gupta, Trade Liberalization in 1980's and Change in the Protection of Indian industries – in liberalizatuion impace of India Economy, 1993, p.20.
4. M.S.Rao, Trends and Determinants of India foreign Trade.....Publication, Allahabad, 1991.
5. Neog A.K. Some Aspects of India's External Sector in Structural Reforms in Indian Economy, Ed Bovali. D
6. Singh, D. Impact of Import Liberalization on export Reserve Bank of India, Occasion papers, Vol.5, No.1, 1994. P.1
7. Sukhi Annbhass, Economic affairs – Impacts of import liberalization export performance in Indian Economy, 2001, P.199.
8. M.S.Khan impact and Export of Demand in Developing countries Imt Stage Paper, Vol.XXI, Nov., 1994, p.55
9. Sunanda Sen, "Dimensions of Indian External Economic crisis", Economic and Political weekly, Vol.XXIX,.no.14, April 12, 1994, PP.805-812.
10. Y.V.Reddy, External Dept and Economic Reforms, RBI Bulletin, December, 1997, P.104.
11. Y.V.Reddy, India the Global Partner, Reserve Bank of India Bulletin, May 2008, P.790.
12. K.S.Chalpatei Rao, M.R.Murthy, Foreign Direct investment in Post liberalization period: An over view, Journal of Indian School of Political Economy, Vol.II.No.3, July - September 1999, pp.423-434
13. Kannan R. Trade Instability – Indian Experience, RBI Occasional Papers, Vol.4, No.2,
14. December 1983, pp.152-181
15. M.S.Rao, Trade and Development of India Foreign Trade Chug publication, Allahabad, 1991.
16. V.K.Bhaskar Rao, Indian foreign trade – An overview, Southern Economics, September, 15, 1998 pp.7-10.
17. J.S.Kocher, Foreign Investment in India and Activity, Yojana, Vol.36, No.11, June 30, 1992,
18. pp.22-24.
19. Bhattacharya , Manas, "Export Promotion versus Import Substitution", foreign Trade review, Vol.18, No.4, January-March, 1984, pp.474-77.
20. N.S.Sidharthan, "Impact of Import Liberalization on Export Intensities: A study of the Indian
21. private corporase sector". The Indian Economic journal, Vol.37, No.2, 1989, pp.103-11
22. Sharma, Atul, "Import Intensities of Indian Industries in the context of new Economic policy –

23. An Analysis in Input – output frame work", Man and development, September, 1990, p.19
24. G.Bharathi Kamath, Trade Liberalization, its Impact on the Import Dependence of the Consumer goods Vs. capital goods industry" the Journal of Industrial Economics, Vol.IV, No.1, 2007, p. 43-60.
25. Anubhuti shukla "Impact of Import Liberalization on Export Performance" of India Economy, Economic Affairs, Vol.46, no.4, 2001, pp.199-209.
26. Wadhva, D.Charar, "Elasticities of Demand for Indias Exports and Imports and the Question of the Devaluation of the Indian Rupee", Foreign Trade Review, Jan-march 1974, pp. 364-378.

***

N.Sheeladevi/Research Scholar/
School of Economics/
Madurai Kamaraj University/
Madurai/Tamilnadu/ India