

PIGGY BACK RIDING ON THE VEHICLE OF INDIA'S GROWTH

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ABSTRACT

Behind India's growth story which entities are really benefitting is an interesting study. It presumes that if a particular sector has increased its' sales during a particular time period then naturally it has benefitted all those who have been the suppliers of raw materials to that sector. If the supplier of raw materials are further bifurcated into indigenous and imported then it is still interesting to compare that, with the growth of a particular sector whether the indigenous raw material supplies have grown at a higher rate compared to imported raw material supplies or it is vice versa or further still both have grown at the same rate. If unfortunately for a particular sector if the consumption of imported raw material has grown at a higher rate then, it implies that, all the rhetoric about indigenization of Indian products has not materialized into action.

If the rate of indigenous consumption of raw material has increased more than the consumption of imported raw material then it can be safely assumed that growth has benefitted Indian soil more than foreign suppliers.

As data is collected for different sectors, a comparison can be drawn between sectors. A focused strategy of indigenization can be chalked out for those sectors where imported raw material content has grown at a phenomenal rate.

KEYWORDS – Consumption of Imported raw material, Consumption of Indigenous raw material, Mean / Initial Value Growth Rate, Overall Trade Balance, Sector-wise Sales.

RESEARCH METHODOLOGY

All the data is aggregate secondary data of all companies for a particular sector, collected from CMIE's **Prowess database**. Simple arithmetic has been employed by the researcher in calculating growth rates. Data for a sector has been collected for twenty years i.e. for 1991-2000 and 2001-2010.

Wherever, measurement of growth is required, instead of CAGR (Compounded annual

growth rate) formula, a simple mean / initial value formula is used. CAGR uses only the first figure and the last and ignores the figures for the intervening period. If, either of these is an outlier then we get a distorted reading. The mean figure uses all the intervening data and is a robust measure.

INTRODUCTION

Behind all the hype of India shining it is interesting to see if the economic growth in various sectors has taken in its' stride consumption of *indigenous* raw material or consumption of *imported* raw material.

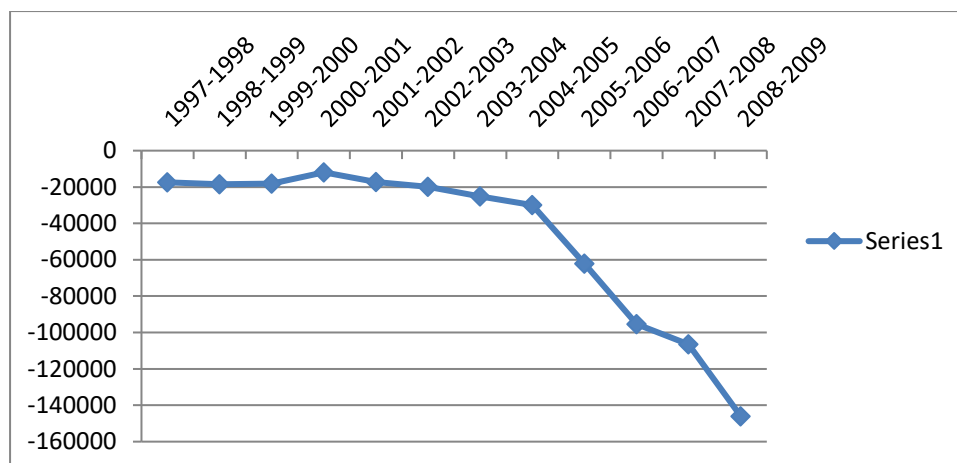
OVERALL TRADE BALANCE – If one studies the merchandise trade balance from 1997 to 2009 India has been riddled with negative trade balance persistently for the past so many years.

Trade balance between 1997-98 and 2008-09¹

Sl no	Year	TB in CR
1	1997-1998	-17413.6998
2	1998-1999	-18499.2798
3	1999-2000	-18181.5677
4	2000-2001	-11929.6284
5	2001-2002	-17323.705
6	2002-2003	-19805.1615
7	2003-2004	-25176.3466
8	2004-2005	-29862.3112
9	2005-2006	-62148.9563
10	2006-2007	-95376.5381
11	2007-2008	-106442.4678
12	2008-2009	-146011.0275

Import-Export Trade Deficit between 1997-98 and 2008-09

¹ Trade statistics - Ministry of Commerce; website www.commerce.nic.in. For the respective years total exports have been subtracted from total imports to arrive at the trade balance.



Graph of the above table showing Balance of Payment condition from the year 1997 to 2009

Although, a major portion of this negative balance is attributed to oil imports, but still even non oil trade balance is also continuously deteriorating over the years as we will see. A consistent effort is required in reversing this adverse trend. But, before we chalk out a long term policy in this direction, it is equally essential to delineate the sectors which are the greatest consumers of imported raw material.

A sector wise study has been undertaken by collecting data from CMIE's Prowess data base for a period of twenty years starting from 1991 to 2010. The fields for which data has been assimilated are

- a) Sales
- b) Consumption of Indigenous raw material
- c) Consumption of imported raw material.

The sectors are

- | | | |
|-----------------------------|--------------------------|---------------|
| 1. Food and Beverages | 9. Electronics | |
| 2. Textiles | 10. Transport | Equipment |
| 3. Chemicals | | Manufacturing |
| 4. Non metallic minerals | 11. Paper and News print | |
| 5. Ferrous metals | 12. Leather products | |
| 6. Non ferrous metals | 13. Books and Cards | |
| 7. Electrical Machinery | 14. Wood | |
| 8. Non Electrical Machinery | 15. Media Print | |

16. Mining

17. Electricity

The sectors data are as follows. A point of caution, which will help in proper inference from data tables, is that the growth rates for the second decade 2001 – 2010 should be magnified as they are on the back of a larger base figure of the year 2000. If the year 2010 figure is compared with the figure of 1991 then the intensity of the consumption of raw material will be very high. Finally, while concluding, the sectors are further categorized on the basis of whether the growth rate of imported items are more than indigenous items in both the decades or not. This has resulted in four categories a, b ,c and d.

Also, in those cases where the figures for a few initial years were not available is indicated by zero. In such cases the corresponding growth rates have been calculated for the relevant number of years. The last row depicting the mean / Initial value growth rate is of importance in drawing inference, even though CAGR rates have also been compiled for people of interest.

1) Food and Beverages (1672 companies) (b category)

	Sales	Ind	Imported		sales	ind	imp
1991	168761.9	33437.6	33298.2	2001	588800.2	192794.7	28687.7
1992	204963.6	33872.2	33668.7	2002	660531.5	231727.6	40144.2
1993	239984.3	34592.1	34034.4	2003	790662.1	271781.7	64046.2
1994	284703.7	37484.5	34436.3	2004	867729.6	298739.3	69890
1995	352964.7	42728.1	35098.4	2005	989684.6	316272.3	77189.9
1996	424771.7	46173.8	35307	2006	1173025	394126.1	99602.7
1997	402454.7	54327.9	37498.6	2007	1375113	509909	101881.5
1998	469181.1	70672.7	40381.7	2008	1661050	657472.8	134872.8
1999	543333.5	93002.5	44574.6	2009	1941810	713663.2	165656.1
2000	580378	214157.4	54896.3	2010	2140808	800225.8	220085.8
CAGR	-0.61	-0.28	-0.81	CAGR	-0.59	-0.53	-0.14
mn/Iv	2.17	1.97	1.15	mn/Ival	2.07	2.27	3.49

2) Textile sector's (1,358 companies).(a category)

	Sales	Ind raw material	Imp. raw material	year	Sales	Ind	Imported
1991	133416.3	547.2	18.7	2001	549777.2	202963.5	38439.9
1992	165988	14.9	1.7	2002	515791.9	186481.8	41438
1993	196389	3310.7	391.3	2003	572050.1	217175.5	36033.5
1994	237603.7	8384.7	829.5	2004	592268.9	221964.6	42718.8
1995	297978.7	10571.2	1445.5	2005	665346.5	257222.4	52562.9
1996	376323.7	9375.9	669.9	2006	715540.1	274260	53743.9
1997	386477.5	22197.8	4448.2	2007	835486.1	340830.6	52914
1998	424104	35792.1	4098.7	2008	973549.5	478096.5	59389.3
1999	446969.7	42492.4	3875.7	2009	1061211	483485.4	72858.8
2000	498030.7	161887.4	25473.8	2010	1141396	449785.1	89824.2
CAGR	-0.58	31.87	150.35	CAGR	-0.76	-0.75	-0.74
mn/Iv	2.37	53.83	220.60	mn/Iv	1.38	1.53	1.40

3) Chemicals(2211 companies)(a category)

	Sales	Ind	Imported		Sales	Ind	Imported
1991	645954.8	1799.5	2358	2001	3416819	577980.1	683174.6
1992	766606.4	2319.5	4084.1	2002	3383377	558652.1	883848.7
1993	882243.2	8936.4	26231	2003	3860280	722389.6	1060423
1994	991351.8	13320.4	28068.4	2004	4818987	750725.6	1195723
1995	1329458	22358.1	27517.1	2005	5829395	974440.9	1612355
1996	1543300	17460.2	12609.5	2006	6806763	1082217	2239446
1997	1777279	36553	55462.6	2007	8095813	1245364	2910018
1998	1998752	47920.8	44136.8	2008	9210091	1411066	3449244
1999	2384679	98728.4	124892.4	2009	10652771	1722295	4397342
2000	2964247	365231.9	442809.8	2010	11003310	1594368	4319274
CAGR	-0.49	21.55	19.86	CAGR	-0.64	-0.69	-0.29
mn/Iv	2.36	34.15	32.57	m/Iv	1.96	1.84	3.33

4) Non Metallic Minerals (591 companies)(b category)

	Sales	Ind	Imported		Sales	Ind	Imported
1991	81070.5	140.6	237.3	2001	318591.3	54748.8	43186.7
1992	97499.2	3168.8	449.5	2002	339086.3	64044.3	45151.7
1993	105722.1	3608.1	339.4	2003	358132.1	59689.8	48303.1
1994	132819.2	5048.6	1078.6	2004	433245.5	69066.7	54354.6
1995	162751.9	4014.2	1777.7	2005	502675.9	80123.2	51855.3
1996	199011	3635	1488.6	2006	593911.8	93638.4	61542.5
1997	207822	1662.8	530.5	2007	764352.7	126022.9	91408.9
1998	236200.6	4411	4671.5	2008	922637.8	150403.7	120697
1999	265324.1	9715.1	8404.4	2009	1035746	164386.6	156128.5
2000	291018.5	47811	34489.8	2010	1212019	196664.7	186532.1
CAGR	-0.60	36.78	15.14	CAGR	-0.57	-0.60	-0.52
mn/Iv	2.19	59.18	22.53	mn/Iv	2.03	1.93	1.98

5) Ferrous Metals (1102 companies)(a category)

	Sales	Ind	Imp.		Sales	Ind	Imported
1991	194691.7	1082.9	349.1	2001	675665.2	221021.5	70469.8
1992	232290.6	57.8	0.6	2002	700889	243364.3	85967.4
1993	274864.3	1011.3	230.7	2003	857286.3	277564.6	101121.9
1994	328651	4021.3	406.4	2004	1095251	355568.5	135648.7
1995	411336.8	5396	916.8	2005	1585101	486026.5	218114.4
1996	501993.5	8710.4	1068.3	2006	1689241	491295.6	283604.8
1997	545917	8523.6	1344	2007	2157789	645480.6	362561.6
1998	530288.5	14720.8	5063.8	2008	2607467	794153	438239.1
1999	546356.8	35809.5	14131.4	2009	2922955	934172.3	588647.2
2000	597258.7	183228	58441.3	2010	2855409	885192.4	539372.4
CAGR	-0.65	17.80	17.60	CAGR	-0.53	-0.55	-0.14
mn/Iv	2.13	24.24	23.47	mn/Iv	2.53	2.41	4.00

6) Non Ferrous Metals (162 com)(a category)

	Sales	Ind	Imported		Sales	Ind	Imported
1991	43549.8	204.9	1.3	2001	169952.5	40621.1	29254
1992	57183.1	210.5	0	2002	171594.2	45463.9	31773.8
1993	67376.7	173.4	13.2	2003	185160.2	35656.9	24631.7
1994	72453.5	409	58.5	2004	227134	40552.3	54289.3
1995	89717.5	1536.6	825.4	2005	280815.5	45980.2	74209.7
1996	106842.9	7500.2	2259.7	2006	384800.7	50283	132483.9
1997	102668.2	5273.2	945.2	2007	628604.7	63644.6	237738.4
1998	117005	6915.1	696.2	2008	646468.9	65942.4	258367.1
1999	124379.9	8342.8	4011.7	2009	593955.1	81371.8	217352.8
2000	159954.2	36489.8	26237.9	2010	639397.3	94855.9	267615.4
CAGR	-0.59	18.78	2241.55	CAGR	-0.58	-0.74	0.01
mn/Iv	2.16	32.72	2696.08	mn/Iv	2.31	1.38	4.53

7) Electrical Machinery (414 companies)(a category)

	Sales	Ind	Imp		Sales	Ind	Imported
1991	57573.2	145.2	4.6	2001	190397.9	79171.7	18118.7
1992	71649.7	599.4	99.9	2002	193551.7	78530.3	21087
1993	84603.6	1538.1	552.6	2003	180378.1	75062	17788.1
1994	93386.1	2957.3	1027.7	2004	192010.1	79331.6	17442.1
1995	112736.2	2409.8	1082.3	2005	238690	102371.3	25339.8
1996	140136.4	1222.6	89.2	2006	314397.9	138277.1	40130.4
1997	146271.6	2513.5	100.2	2007	424152	191070.7	51632.6
1998	144531.3	4882	674.9	2008	544420.7	257080.8	66401.5
1999	164257.2	12142.5	2726	2009	578390.3	275076.4	68811.4
2000	175773.7	58407.7	16127.9	2010	570000.1	289557.9	73069
CAGR	-0.66	43.69	388.56	CAGR	-0.66	-0.59	-0.55
mn/Iv	2.06	59.79	488.81	mn/Iv	1.79	1.97	2.20

8) Non Electrical Machinery (509 companies)(b category)

	Sales	Ind	Imp		sales	Ind	Imp
1991	114173.6	9853.3	7465.6	2001	251161.7	92340	31772.3
1992	126839	1701	19.4	2002	248706.3	86961.3	34355.4
1993	139707.2	12150.9	8222.4	2003	278985.3	93377.3	36142.8
1994	153102.4	11095.7	7651.7	2004	345871.3	120934.5	43287.1
1995	174619.4	3683.9	1369.4	2005	435465.7	174398.4	56025.4
1996	205498.2	6667.7	1913.3	2006	576508.4	235647.6	69416.4
1997	220980.7	3728.2	642.6	2007	747826.3	310888.4	93700.9
1998	233094.6	7194.6	2373.9	2008	887544.5	386475.9	116723.5
1999	239416.2	7584.5	2444.4	2009	907242.3	390662.2	131359.3
2000	246006.7	78632.3	24874.9	2010	928014	405379.7	134205.6
Cagr	-0.78453	0.20197	-0.66681	cagr	-0.63051	-0.56099	-0.5776
mn / iv	1.62	1.44	0.76	mn / iv	2.23	2.48	2.35

9) Electronics (431 companies)(b category)

Year	Sales	Ind.	Imp	Year	Sales	Ind.	Imp
1991	41897.6	0	0	2001	162532.9	51668.3	31244.1
1992	37523.4	2.8	0	2002	187061.2	61672.4	33098
1993	45600.2	152.8	256.8	2003	181477	55141.4	29454.1
1994	72463.7	5817.5	1413.7	2004	203559.2	62138.9	35191
1995	79107.5	8094.2	1889.5	2005	235250.9	66072.3	44580.4
1996	96144.3	10154.5	2471.8	2006	273285.4	84697.8	54018.3
1997	100351.2	9493.2	2624.9	2007	312131.8	101966.7	62086.2
1998	104722.5	12009.6	4360.5	2008	341018	102658.7	68117.1
1999	123541.4	14825.1	5032.2	2009	356239.9	117303.6	76756.2
2000	149487.7	44852.5	24592.1	2010	429100.1	168604.4	104108.2
CAGR	-0.64	1778.86	10.97	CAGR	-0.73	-0.69	-0.55
Mn / IV	2.03	3764.36	16.60	Mn / IV	1.64	1.41	1.82

10) Transport Equipment Manufacturers (525 companies)(a category)

year	sales	ind	imp	Year	Sales	Ind.	Imp
1991	123902.3	132.8	6.5	2001	612545.8	268669.2	71889.9
1992	126705.5	229.6	5.2	2002	609790.7	266836.2	58897.2
1993	134035.7	4952.5	330.2	2003	716355.5	321813.1	68557.9
1994	184744.8	7368.1	1281.1	2004	940226.6	432800.7	91448.1
1995	263895.4	15898.9	2761.2	2005	1192519	570127.3	128119.9
1996	357353.1	20959.9	4583	2006	1379904	661327.8	147036.6
1997	428514.2	19555.5	3651.1	2007	1768492	863457.3	200144.8
1998	422066.9	23226.2	2878.6	2008	1999324	995585.4	209078.1
1999	447737.3	27119	7070.4	2009	2048509	1043171	267850.3
2000	624368.7	233469.5	58485.2	2010	2542242	1279442	308531.3
CAGR	-0.49	174.80	898.77	CAGR	-0.58	-0.46	-0.43
Mean / IV	2.32	7.12	24.54	Mn / IV	2.25	2.51	2.26

11) Paper and News print (299 companies)(c category)

Year	sales	ind	imp	year	Sales	ind	imp
1991	27672.5	0	0	2001	101750.4	20101.8	9840.7
1992	33022.4	271.8	36.6	2002	94416.6	20370.3	10409.4
1993	34611.1	306.6	42.1	2003	103274.8	23489.7	12578.6
1994	36889.8	2026.1	848.7	2004	107237.3	23273.1	11315.6
1995	45122.3	3584	1027.7	2005	120965.2	27817.6	14159.6
1996	68114.3	4029.8	1583.4	2006	137660.3	31564.4	16985.5
1997	64842.8	2876.9	1162.8	2007	156394.1	35846.4	19726.1
1998	54054.4	3887.2	1852.8	2008	162391.7	39171.2	19027.9
1999	60041.5	4731.6	1621.3	2009	182768.9	46911.4	22436.9
2000	73044.5	16420.1	5538.9	2010	181909.9	46191.5	23447.4
CAGR	-0.73	5.71	15.81	CAGR	-0.82	-0.77	-0.76
Mn / IV	1.43	12.43	32.57	Mn / IV	1.30	1.33	1.27

12) Leather Products (131 companies)

Year	sales	ind	imp	Year	Sales	Ind.	Imp
1991	4907.6	0	0	2001	20943.5	7970.5	2373.4
1992	5427.3	0	0	2002	22834.1	9409.5	2063.3
1993	6682.9	0	0	2003	25243	9959.4	2797.7
1994	9649.2	180.2	37.5	2004	27493.2	10427	2790.9
1995	13539.2	560.7	81.9	2005	32145.3	12079.3	4429.9
1996	17452.1	658.9	126.2	2006	30975.7	11397.8	2887.9
1997	18151.5	4.9	5.1	2007	36307	12559.9	4871.7
1998	17836.6	87.3	19.4	2008	36575.3	12702.4	3812.6
1999	21236.1	390.9	238.2	2009	40760.3	15299	4136.2
2000	22531	5161.6	1671.6	2010	41280.4	14534.6	3377.7
CAGR	-0.54	3.09	5.36	CAGR	-0.80	-0.82	-0.84
Mn / IV	2.05	3.90	5.81	Mn / IV	1.50	1.23	1.19

13) Books and Cards (74 companies)(a category)

year	sales	ind	imp	Year	Sales	Ind.	Imp
1991	434.2	0	0	2001	6065	1456.5	335.1
1992	504.3	0	0	2002	7100.3	1848.5	394.2
1993	732.6	0	0	2003	8724	2112.3	421.5
1994	1121.6	47.5	1.1	2004	9442.9	2284.1	493.6
1995	1115.7	71	1.8	2005	16066.5	2384.9	493.1
1996	2213.8	0	0	2006	17936.6	2876	413.3
1997	2235.4	34.6	0	2007	35607.9	5311.3	2494.9
1998	2674.2	80.4	0.5	2008	42981.5	7005.7	3755.8
1999	3615.2	61.8	0.5	2009	40683	15916.9	4833.2
2000	5173.3	883.7	181.3	2010	44015.2	16289.3	4450
CAGR	0.19	1.65	22.54	CAGR	-0.27	0.11	0.32
Mn / IV	4.56	2.48	16.83	Mn / IV	3.76	3.94	5.39

14) Wood (58 companies)(a category)

Year	sales	ind	imp	Year	Sales	Ind.	Imp
1991	2466.7	0	0	2001	7907.8	2732.2	977.7
1992	2945.8	0	0	2002	7901.6	2429.9	1171.9
1993	4430.2	0	0	2003	7601.1	2237.4	1322.4
1994	5148.6	40	14	2004	7999.5	2443.7	1319.3
1995	5669.1	518.5	93.8	2005	10053.3	3012.6	1692.7
1996	6974.9	618.1	130.6	2006	10034.1	2912.7	2048.6
1997	7259.5	433.1	160.1	2007	14134.6	4261.4	2540
1998	6029	326.8	296.6	2008	23329.9	7178	3801
1999	5706.5	352.5	340.8	2009	27417.3	7739.5	5452.2
2000	6889.2	2038.1	841.9	2010	28863.9	8120.8	5720.1
CAGR	0.72	6.27	7.59	CAGR	-0.63	-0.70	-0.41
Mn /				Mn /			
IV	2.16	15.45	19.16	IV	1.83	1.57	2.66

15) Media Print (54 companies)(a category)

year	sales	ind	imp	Year	Sales	Ind.	Imp
1991	2964.8	0	0	2001	30555.4	6450.9	7047.1
1992	3630	0	0	2002	31486.5	7162.1	7932.2
1993	1375.4	0	0	2003	34787.5	5678.5	7343.7
1994	1752.6	0	0	2004	20952.3	6178.7	11106.8
1995	1500.4	5	0	2005	22556.6	8248.7	13249.8
1996	2296	6.1	0	2006	29197.6	11628.6	18346.8
1997	1824.4	248.6	199.9	2007	44405.4	13275.6	22180.9
1998	1153.9	199.1	236.6	2008	59142.9	12703.4	21998.7
1999	2760.1	40	133	2009	98408.4	17013.4	26692.3
2000	21406.4	3129.9	4776.5	2010	102133.7	13533.1	18322.3
CAGR	-0.27	2.14	4.97	CAGR	-0.66574	-0.79	-0.74
Mn /				Mn /			
IV	1.37	3.63	6.68	IV	1.55	1.57	2.18

16) Mining (191 companies) (a category)

year	sales	ind	imp	Year	Sales	Ind.	Imp
1991	37944.8	0	0	2001	522562.9	11898	1706.2
1992	179380.2	4080.1	0.4	2002	526339.5	10854.1	1746
1993	179934.3	5610.6	149.9	2003	714683.4	11170.8	2232.2
1994	113460.9	157.3	103.1	2004	737540.2	12727.2	3181.2
1995	178959.7	362	150	2005	935523.2	14011.1	5754.8
1996	299736.4	532.2	113	2006	964510.1	14947.2	8998.5
1997	358603	6510.7	96.2	2007	1077857	22236.5	7690.4
1998	397913.9	8360.2	207.4	2008	1286849	30247.8	12393.2
1999	404530.7	12192.3	229.1	2009	1400306	34683.6	22436.7
2000	469150.6	16251	1338.7	2010	1520175	29057.6	17499.8
CAGR	0.23	-0.55	370.86	CAGR	-0.70	-0.75	0.025
Mn / IV	6.90	1.47	663.27	Mn / IV	1.85	1.61	4.90

17) Electricity (447 companies)(d category)

year	Sales	ind	imp	Year	Sales	Ind.	Imp
1991	73348.7	0	0	2001	263776.6	21821.8	4256.2
1992	101563.1	0	0	2002	5752.7	142420.4	2921.7
1993	129321.8	0	0	2003	9462.4	177019.8	6653
1994	169734.5	0	0	2004	13152	183097.4	6487.7
1995	121195.2	76.5	22.3	2005	14820.9	242996.8	12775.3
1996	75386.8	93	18.1	2006	12663.3	297330.1	20596.9
1997	174274.2	0	0	2007	12318.3	389308	30469.5
1998	249104.8	2157.6	17.1	2008	17764.8	421436.7	37848.9
1999	84525.1	78051.3	668.1	2009	16081.3	498639.3	84855.3
2000	56510.1	86093.7	4329.3	2010	11023.2	500322.6	84836.4
CAGR	-0.92	186.56	31.35	CAGR	-0.99	1.29	0.99
Mn / IV	1.68	241.78	25.18	Mn / IV	0.14	13.17	6.85

SUMMARY TABLE

Category a) Those sectors where growth rate of Imported raw material has been higher (or comparably higher) than indigenous raw material in both the decades

S.No	Sector	I Decade		II Decade	
		Ind	Imp	Ind	Imp
1	Textile (1358 companies)	53.83	220.60	1.53	1.40
2	Chemicals (2211 companies)	34.15	32.57	1.84	3.33
3	Ferrous Metals (1102 companies)	24.24	23.47	2.41	4.00
4	Non Ferrous Metals (162 companies)	32.72	2968.08	1.38	4.53
5	Electrical Machinery (414 companies)	59.79	488.81	1.97	2.20
6	Transport Equipment Manufacturers (525 comp)	7.12	24.54	2.51	2.26
7	Books and Cards (74 companies)	2.48	16.83	3.94	5.39
8	Wood (58 companies)	15.45	19.16	1.57	2.66
9	Media Print (54 companies)	3.63	6.68	1.57	2.18
10	Mining (191 companies)	1.47	663.27	1.61	4.90

Category b) Those sectors where the growth rate of imported raw material has been greater (or comparatively greater) in the second decade only.

S.No	Sector	GR - I Decade 91-2000		GR - II Decade 2001-10	
		Ind	Imp	Ind	Imp
1	Food and Beverages (1672 companies)	1.97	1.15	2.27	3.49
2	Non Metallic Minerals (591 companies)	59.18	22.53	1.93	1.98
3	Non Electrical Machinery (509 companies)	1.44	0.76	2.48	2.35
4	Electronics (431 companies)	3764.36	16.60	1.41	1.82

Category c) Those sectors where the growth rate of imported raw material has been higher only in the first decade but not in the second

S.No	Sector	I Decade		II Decade	
		Ind	Imp	Ind	Imp
1	Paper and Newsprint (299 companies)	12.43	32.57	1.33	1.27
2	Leather Products (131 companies)	3.90	5.81	1.23	1.19

Category d) Those sectors where the growth rate has been lower in both the decades

S.No	Sector	I Decade		II Decade	
		Ind	Imp	Ind	Imp
1	Electricity (447 companies)	241.78	25.18	13.17	6.85

CONCLUSION

As seen in the summary table ten sectors out of seventeen belong to that category where the growth rate of imported raw material has been higher than indigenous raw material in both the decades. A proper framework of indigenization has to be arrived at so as to gradually decrease the proportion of imported raw material in our manufacturing sector. We can start from the star sectors which have a ready market and the indigenization process will pay off immediately. Our batch of professionals who are serving companies on other soils can be retained to initiate the manufacturing of these items. In the long run, such a policy can pay off in effectively reducing the negative trade balance and eventually lead to a stable currency apart from various other structural benefits for the country.

REFERENCES

All data has been collected from CMIE's Prowess database for each sector. The calculations on growth rate has been done by the researcher.