

CHAPTER-2

Salient features of the Census

The comparative data of key variables for 2005-06 and 2000-01 along with % age increase in 2005-06 over 2000-01 for Pakistan, its four provinces and federal capital territory of Islamabad are given below:

Table 2.1: Key Variables of CMI 2005-06 and CMI 2000-01

Region	Reporting Establishments	Average daily employment during the year (employees)	Employment cost	Industrial cost	Value of production at market prices	Census value added at market prices	Contribution to GDP (GVA) at market prices	Value of fixed assets at the end of the year
	numbers		value in million Rs					
Census of Manufacturing Industries 2000-01								
Pakistan	4,528	690,122	65,522	779,075	1,145,064	365,988	320,700	427,671
Punjab	2,357	376,023	28,563	368,991	519,253	150,261	126,638	201,106
Sindh	1,768	259,483	32,526	356,972	535,387	178,415	159,901	168,816
NWFP	236	36,548	2,168	24,059	50,630	26,570	24,791	41,836
Balochistan	93	11,466	1,636	17,332	25,157	7,825	7,053	12,976
Islamabad	74	6,602	629	11,720	14,637	2,917	2,317	2,937
Census of Manufacturing Industries 2005-06								
Pakistan	6,417	941,283	132,413	1,825,906	3,030,187	1,204,282	1,013,014	1,147,318
Punjab	3,590	558,408	67,747	900,898	1,440,903	540,005	447,194	648,435
Sindh	1,825	290,376	53,060	751,700	1,248,932	497,233	421,959	351,637
NWFP	673	62,403	7,752	84,070	175,358	91,288	84,027	97,494
Balochistan	212	19,204	2,756	73,916	141,481	67,566	52,581	39,101
Islamabad	117	10,892	1,098	15,323	23,514	8,191	7,253	10,651
%age increase during 5 years (2005-06 over 2000-01)								
<i>Pakistan</i>	41.7	36.4	102.1	134.4	164.6	229.0	215.9	168.3
<i>Punjab</i>	52.3	48.5	137.2	144.2	177.5	259.4	253.1	222.4
<i>Sindh</i>	3.2	11.9	63.1	110.6	133.3	178.7	163.9	108.3
<i>NWFP</i>	185.2	70.7	257.6	249.4	246.4	243.6	238.9	133.0
<i>Balochistan</i>	128.0	67.5	68.5	326.5	462.4	763.5	645.5	201.3
<i>Islamabad</i>	58.1	65.0	74.6	30.7	60.6	180.8	213.0	262.6

The above summary table portrays the fact that number of reporting establishments have increased from 4,528 in 2000-01 to 6,417 in 2005-06. This shows an overall increase of 42% at national level, while its segregation at provincial level shows an increasing trend of 52% in Punjab, about 3% in Sindh, 185% in NWFP, 128% in Balochistan and 58% in Islamabad. Likewise, the values of fixed assets with manufacturing industries were increased by 168% at national level from Rs 428 billion to Rs 1,147 billion. Evidently, such manifest

increase was elevated by the substantial increases in values of fixed assets at regional levels i.e. 263% in Islamabad, 222% in Punjab, 201% in Balochistan, 133% in NWFP and 108% in Sindh, respectively. On the other hand, average daily employment in the country's industrial sector was increased by 36%. The employment cost has, however, almost doubled from Rs 65 billion in 2000-01 to Rs 132 billion in 2005-06. Other major indicators also depict similar trends. The industrial cost, value of production, census value added and contribution to GDP at market prices have also increased by 134%, 165%, 229% and 216%, respectively.

Table 2.2: Census value added & contribution to GDP (GVA) in Latest CMI

S #	DESCRIPTION	Census of Manufacturing Industries				Percent Change (%)		
		1990-91	1995-96	2000-01	2005-06	1995-96 over 1990-91	2000-01 Over 1995-96	2005-06 over 2000-01
		Value in Million Rs						
Census value added								
1	Output at producer prices	369,664	678,196	1,104,185	2,929,320	83.5	62.8	165.3
2	Industrial Cost	263,852	480,452	779,075	1,825,906	82.1	62.2	134.4
3	Census Value Added (Producer Prices) (1-2)	105,812	197,744	325,110	1,103,414	86.9	64.4	239.4
4	Sales Tax Net	5,195	14,815	40,879	100,867	185.2	175.9	146.7
5	Census Value Added (Market Prices) (3+4)	111,007	212,558	365,989	1,204,282	91.5	72.2	229.0
6	Import/excise duties & other taxes less <i>subsidies</i>	12,677	19,654	16,279	68,384	55.0	-17.2	320.1
7	Census Value Added (Basic Prices) (3-6)	93,135	178,090	308,831	1,035,030	91.2	73.4	235.1
8	Provincial /District Taxes (Net)	955	1,559	1,259	11,471	63.4	-19.3	811.1
9	Census Value Added (Factor Cost) (7-8)	92,180	176,531	307,572	1,023,559	91.5	74.2	232.8
Contribution to GDP (Gross Value Added)								
10	Non-industrial Receipts	2,470	3,991	8,035	2,761	61.6	101.3	-65.6
11	Non-industrial Payments	20,430	32,528	53,325	194,029	59.2	63.9	263.9
12	Contribution to GDP (Market Prices) (5+10-11)	93,047	184,022	320,699	1,013,013	97.8	74.3	215.9
13	Sales Tax Net	5,195	14,815	40,879	100,867	185.2	175.9	146.7
14	Contribution to GDP (Producer Prices) (12-13)	87,852	169,207	279,820	912,146	92.6	65.4	226.0
15	Import/excise duties & other taxes less <i>subsidies</i>	12,677	19,654	16,279	68,384	55.0	-17.2	320.1
16	Contribution to GDP (Basic Prices) (14-15)	75,175	149,553	263,541	843,762	98.9	76.2	220.2
17	Provincial /District Taxes (Net)	955	1,559	1,259	11,471	63.4	-19.3	811.1
18	Contribution to GDP (Factor Cost) (16-17)	74,220	147,994	262,282	832,291	99.4	77.2	217.3

Cotton ginning

Under the Pakistan Standard Industrial Classification (PSIC) 2007, developed on the basis of UN International Standard Industrial Classification, ISIC Rev-3.1; cotton ginning, pressing and baling activity is a

part of agriculture. This is, however, being considered one of the major manufacturing activities and Provincial Directorates of Industries have covered 540 cotton ginning & baling units in Punjab and Sindh in CMI 2005-06.

Table 2.3: Cotton ginning comparison of Latest CMIs

S No	DESCRIPTION	CMI 2000-01	CMI 2005-06	%change 2005-06 over 2000-01
1	Units covered	334	540	61.7
2	No. of employees	15,455	13,689	-11.4
3	Employment cost	556	1355	143.7
4	Fixed assets at the end of the year	2,152	10,439	385.1
Output at producers' prices				
5	Output at producers' prices	55,476	130,680	135.2
6	Industrial Cost	45,080	101,694	125.6
7	Census Value Added (Producers' Prices) (5-6)	10,396	28,986	178.8
8	Sales Tax Net	97	203	109.3
9	Census Value Added (Market Prices) (7+8)	10,493	29,189	178.2
10	Taxes less Subsidies on Products (to producers)	109	757	594.5
11	Census Value Added (Basic Prices) (7-10)	10,287	28,229	174.4
12	Taxes less Subsidies on Production	49	180	267.3
13	Census Value Added (Factor Cost) (11-12)	10,239	28,050	174.0
Non-industrial Receipts				
14	Non-industrial Receipts	13	3	-76.9
15	Non-industrial Payments	523	1,318	152.0
16	Contribution to GDP (Market Prices) (9 + 14 - 15)	9,982	27,874	179.2
17	Sales Tax Net	97	203	109.3
18	Contribution to GDP (Producers' Prices) (16-17)	9,885	27,671	179.9
19	Taxes less Subsidies on Products (to producers)	109	757	594.5
20	Contribution to GDP (Basic Prices) (18-19)	9,776	26,914	175.3
21	Taxes less Subsidies on Production	49	180	267.3
22	Contribution to GDP (Factor Cost) (20-21)	9,728	26,734	174.8

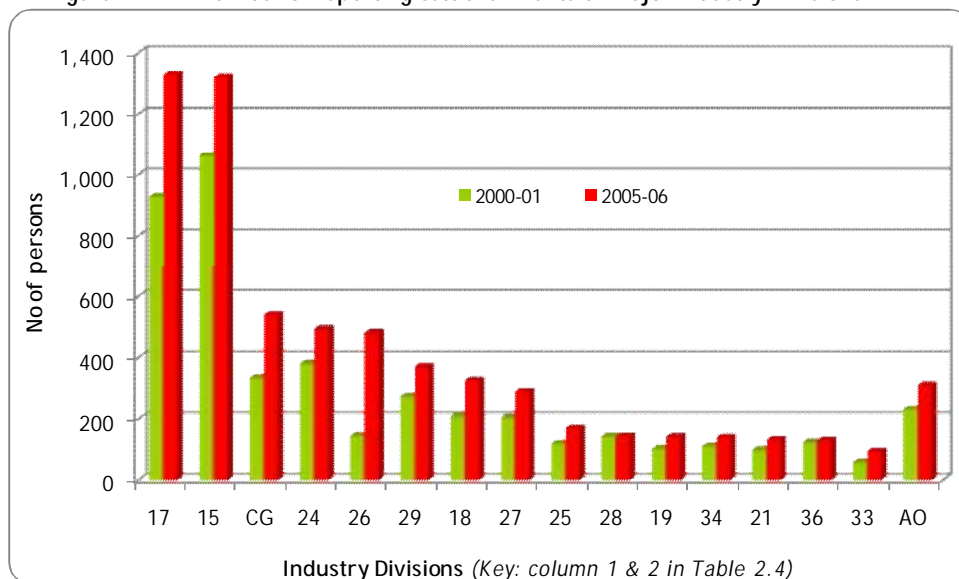
Number of reporting establishments

Keeping in view the coverage scenario, it is evident from Census of Manufacturing Industries that total number of reporting establishments has increased from 4,528 in 2000-01 to 6,417 in 2005-06. It shows an increase of 42%. The maximum number of establishments are involved in textile manufacturing. A detailed picture regarding coverage improvement for various industry divisions is shown in Table 2.4 and Figure 2.1.

Table 2.4: Number of reporting establishments of Major Industry Groups in Latest CMIs

Industry		Census of Manufacturing Industries				Change 2005-06 over 2000-01
Division	Description	2000-01	2005-06	2000-01	2005-06	
		number		% of all industries		
	All Industries	4,528	6,417	100.0	100.0	41.7
17	Manufacture of textiles	928	1329	20.5	20.7	43.2
15	Food products	1,063	1,320	23.5	20.6	24.2
CG	Cotton ginning	334	540	7.4	8.4	61.7
24	Chemicals & chemical products	381	494	8.4	7.7	29.7
26	Other non-metallic mineral products	145	482	3.2	7.5	232.4
29	Machinery & equipment	274	372	6.1	5.8	35.8
18	Wearing apparel	209	326	4.6	5.1	56.0
27	Basic metals	205	291	4.5	4.5	42.0
25	Rubber & plastic products	119	170	2.6	2.7	42.9
28	Fabricated metal products	143	144	3.2	2.2	0.7
19	Leather products	103	142	2.3	2.2	37.9
34	Motor vehicles & trailers	111	139	2.5	2.2	25.2
21	Paper & paper products	99	133	2.2	2.1	34.3
36	Furniture	124	130	2.7	2.0	4.8
33	Medical & optical instruments	58	95	1.3	1.5	63.8
AO	All other industries	232	310	5.1	4.8	33.6

Figure 2.1: Number of reporting establishments of Major Industry Divisions



Employment

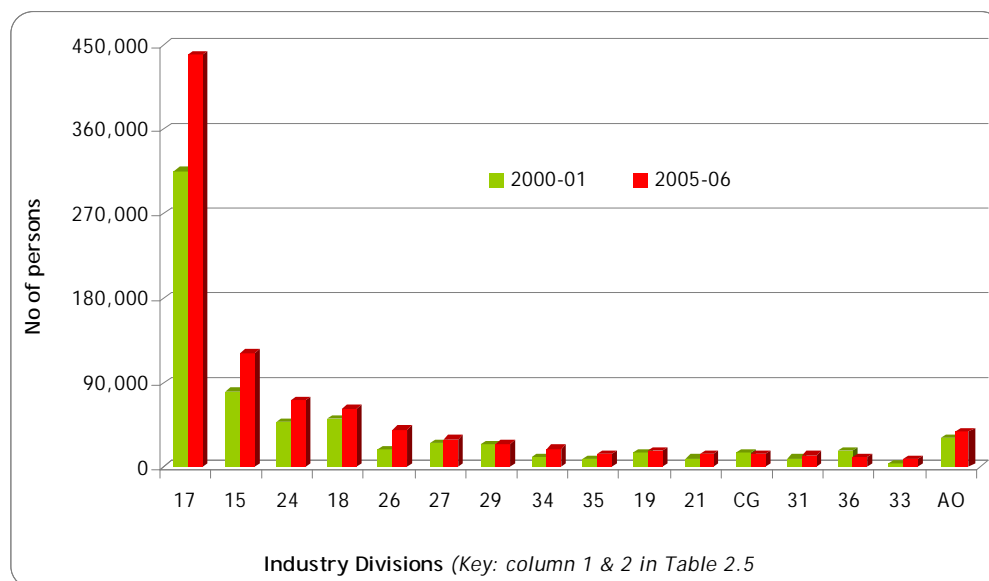
The total reported employed persons in 2005-06 are 941,283 as compared to 691,296 in the previous census 2000-01. This shows an overall increase of 36% in employment opportunities in 2005-06 over the previous census. Annual Compound Growth Rate (ACGR) of employment in the large-scale manufacturing

sector comes to 6%. The table depicts the textile sector having highest contribution to the employment. In this respect, food manufacturing and chemical & chemical products are the second and third leading contributors. Other principal contributions of employment are given in descending order in Table 2.5 and Figure 2.2 below.

Table 2.5: Number of persons employed, % Change and Annual growth rate in Latest CMIs

Industry		Census of Manufacturing Industries				Change 2005-06 over 2000-01	ACGR 2005-06 over 2000-01
Divisions	Description	2000-01	2005-06	2000-01	2005-06		
		Number		% of all industries		%	
All Industries		691,296	941,283	100.0	100.0	36.2	6.4
17	Manufacture of textiles	315,889	438,657	45.7	46.6	38.9	6.8
15	Food products	81,423	122,155	11.8	13.0	50.0	8.5
24	Chemicals & chemical products	48,729	71,650	7.1	7.6	47.0	8.0
18	Wearing apparel	51,107	62,388	7.4	6.6	22.1	4.1
26	Other non-metallic mineral products	19,798	40,417	2.9	4.3	104.1	15.3
27	Basic metals	25,815	30,223	3.7	3.2	17.1	3.2
29	Machinery & equipment	24,491	25,151	3.5	2.7	2.7	0.5
34	Motor vehicles & trailers	11,191	20,141	1.6	2.1	80.0	12.5
19	Leather products	16,043	17,033	2.3	1.8	6.2	1.2
35	Other transport equipment	8,812	14,231	1.3	1.5	61.5	10.1
21	Paper & paper products	9,849	14,071	1.4	1.5	42.9	7.4
CG	Cotton ginning	15,455	13,689	2.2	1.5	-11.4	-2.4
31	Electrical machinery & apparatus	9,770	13,287	1.4	1.4	36.0	6.3
36	Furniture	17,499	10,527	2.5	1.1	-39.8	-9.7
33	Medical & optical instruments	3,971	9,319	0.6	1.0	134.7	18.6
AO	All other industries	31,454	38,344	4.6	4.1	21.9	4.0

Figure 2.2 Number of persons employed in Latest CMIs



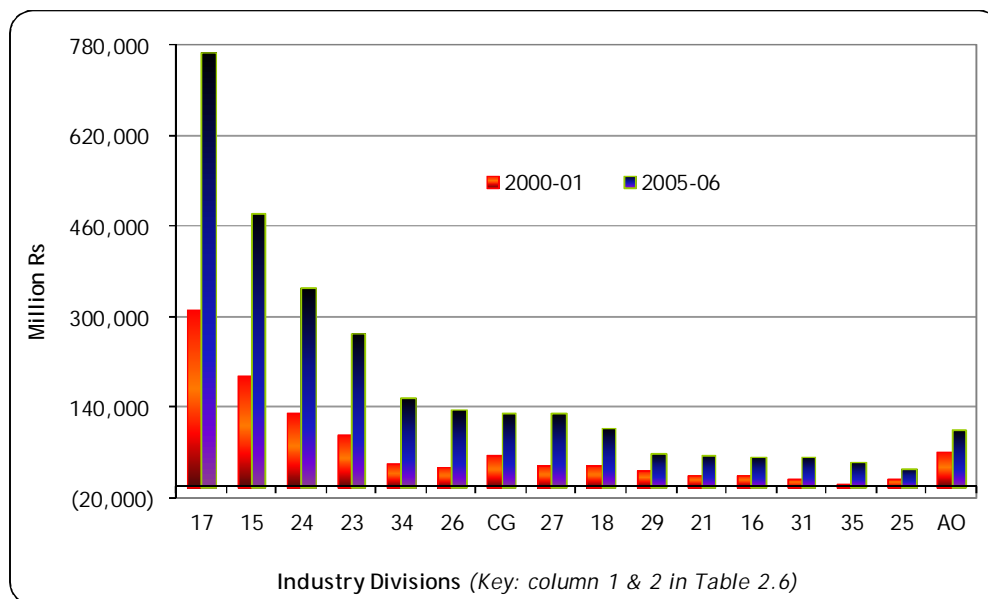
Value of Production

Census of Manufacturing Industries (CMI) 2005-06 estimated the total value of production of manufacturing sector during the year 2005-06 at Rs 2,929 billion showing an increase of 165% over the CMI 2000-01, growing annually by around 22%. The textile sector has highest value of production. The value of production of 15 major industry divisions are given in Table 2.6 and Figure 2.3.

Table 2.6: Value of Production (Output) at Producers' Prices, % Change and Annual growth rate in Latest CMIs

Industry		Census of Manufacturing Industries				Change 2005-06 over 2000-01	ACGR 2005-06 over 2000-01
Division	Description	2000-01	2005-06	2000-01	2005-06		
		million Rs		% of all industries		%	
	All Industries	1,104,185	2,929,320	100	100	165.3	21.5
17	Manufacture of textiles	314,102	766,980	28.5	26.2	144.2	19.5
15	Food products	196,401	484,269	17.8	16.5	146.6	19.8
24	Chemicals & chemical products	131,633	351,398	11.9	12	167.0	21.7
23	Petroleum	90,439	271,523	8.2	9.3	200.2	24.6
34	Motor vehicles & trailers	42,052	159,010	3.8	5.4	278.1	30.5
26	Other non-metallic mineral products	33,880	138,075	3.1	4.7	307.5	32.4
CG	Cotton ginning	55,476	130,680	5.0	4.5	135.6	18.7
27	Basic metals	39,313	130,492	3.6	4.5	231.9	27.1
18	Wearing apparel	38,176	102,595	3.5	3.5	168.7	21.9
29	Machinery & equipment	29,485	60,022	2.7	2.1	103.6	15.3
21	Paper & paper products	19,505	54,955	1.8	1.9	181.7	23.0
16	Tobacco products	20,086	52,402	1.8	1.8	160.9	21.1
31	Electrical machinery & apparatus	15,428	51,849	1.4	1.8	236.1	27.4
35	Other transport equipment	3,820	42,636	0.4	1.5	1016.1	62.0
25	Rubber & plastic products	13,850	32,189	1.3	1.1	132.4	18.4
AO	All other industries	60,538	100,245	5.5	3.4	65.6	10.6

Figure 2.3 Value of Production (Output) at Producers' Prices in Latest CMIs



The average annual increase of the output stood at 21.5%. It is measured at current prices. To a considerable amount it is due to inflation. The deflator used in National Accounts for gross value added at factor cost for manufacturing shows 7.5% annual average inflation. Thus, average annual increase of manufacturing output in real terms may be assumed to be around 14%.

For comparison: Pakistan's Quantum Index of Manufacturing (QIM) stood at 110.95 in average of FY 2000-01 and at 193.10 in average of FY 2005-06, respectively. This results in an average annual increase of QIM of 11.7%. At first glance, it appears as if QIM is understating the growth of output. However, it should be emphasized that comparing the two Censuses is hampered by the fact that the impact of non-response may differ between the two. Moreover, the relevance of excise duties and other taxes as well as the amount of subsidies on products may differ between the two CMIs.

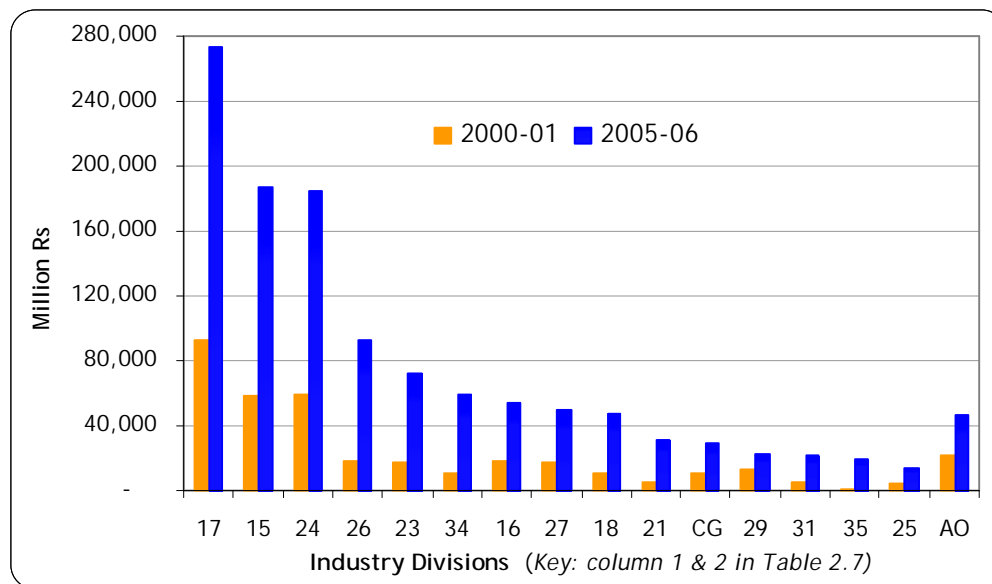
Census Value Added at Market Prices

The total census value added at market prices during 2005-06 was Rs 1,204 billion as compared to Rs 366 billion in 2000-01 CMI. The textile sector is a major contributor. Other principal contributors to the census value added at market prices are listed below in descending order at Table 2.7 and Figure 2.4.

Table 2.7: Census Value added at Market Prices, % Change and Annual growth rate in Latest CMIs

Industry		Census of Manufacturing Industries				Change in 2005-06 over 2000-01	ACGR 2005-06 over 2000-01
Divisions	Description	2000-01	2005-06	2000-01	2005-06		
		Million Rs		% of all industries		%	
	All Industries	365,989	1,204,282	100.0	100.0	229.0	26.9
17	Manufacture of textiles	93,017	273,194	25.4	22.7	193.7	24.0
15	Food products	58,116	187,010	15.9	15.5	221.8	26.3
24	Chemicals & chemical products	59,588	184,425	16.3	15.3	209.5	25.4
23	Petroleum	17,716	72,874	4.8	6.1	311.3	32.7
26	Other non-metallic mineral products	18,876	93,267	5.2	7.7	394.1	37.6
34	Motor vehicles & trailers	17,939	59,149	4.9	4.9	229.7	26.9
16	Tobacco products	17,639	53,983	4.8	4.5	206.0	25.1
27	Basic metals	11,192	49,303	3.1	4.1	340.5	34.5
18	Wearing apparel	10,777	47,614	2.9	4.0	341.8	34.6
21	Paper & paper products	5,309	30,843	1.5	2.6	481.0	42.2
CG	Cotton ginning	10,493	29,190	2.9	2.4	178.2	22.7
29	Machinery & equipment	12,939	22,745	3.5	1.9	75.8	11.9
31	Electrical machinery & apparatus	5,774	21,746	1.6	1.8	276.6	30.4
35	Other transport equipment	795	19,080	0.2	1.6	2300.8	88.8
25	Rubber & plastic products	4,288	13,642	1.2	1.1	218.1	26.0
AO	All Other Industries	21,530	64,214	5.9	3.8	114.6	16.5

Figure 2.4 Census Value Added at Market Prices in Latest CMIs



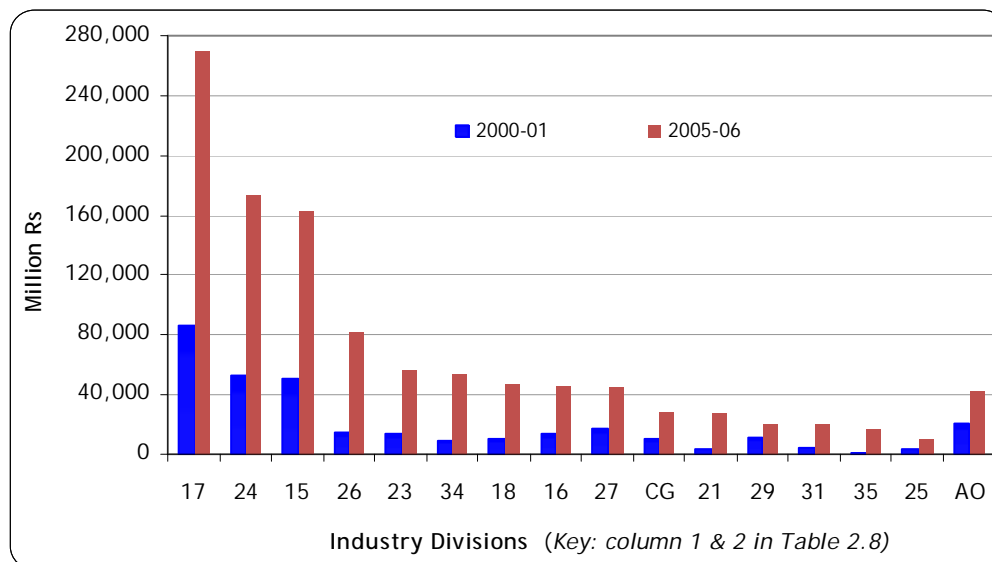
Census Value Added at Producers' Prices

The total census value added at producer's prices during 2005-06 was Rs 1,103 billion as compared to Rs 325 billion in 2000-01 CMI. The textile sector is a major contributor. Other principal contributors to the census value added at producer's prices are listed below in descending order at Table 2.8 and Figure 2.5.

Table 2.8: Census Value added at Producers' Prices, % Change and Annual growth rate in Latest CMIs

Industry		Census of Manufacturing Industries				Change 2005-06 over 2000-01	ACGR 2005-06 over 2000- 01
Division	Description	2000-01	2005-06	2000-01	2005-06		
		million Rs	million Rs	% of all industries	% of all industries		
All Industries		325,110	1103,414	100.0	100.0	239.4	27.7
17	Manufacture of textiles	86,187	269,690	26.5	24.4	212.9	25.6
24	Chemicals & chemical products	52,446	173,772	16.1	15.8	231.3	27.1
15	Food products	50,341	163,440	15.5	14.8	224.7	26.6
26	Other non-metallic mineral products	15,311	81,193	4.7	7.4	430.3	39.6
23	Petroleum	13,903	55,699	4.3	5.1	300.6	32.0
34	Motor vehicles & trailers	9,665	53,876	3.0	4.9	457.4	41.0
18	Wearing apparel	10,701	47,216	3.3	4.3	341.2	34.6
16	Tobacco products	14,071	46,347	4.3	4.2	229.4	26.9
27	Basic metals	17,055	44,687	5.3	4.1	162.0	21.2
CG	Cotton ginning	10,396	28,986	3.2	2.6	178.8	22.8
21	Paper & paper products	3,272	27,409	1.0	2.5	737.6	53.0
29	Machinery & equipment	11,806	20,943	3.6	1.9	77.4	12.1
31	Electrical machinery & apparatus	4,989	20,189	1.5	1.8	304.6	32.3
35	Other transport equipment	794	16,780	0.2	1.5	2012.2	84.1
25	Rubber & plastic products	3,748	10,600	1.2	1.0	182.8	23.1
AO	All other industries	20,423	42,589	6.3	3.9	108.5	15.8

Figure 2.5: Census Value added at producer's prices in Latest CMIs



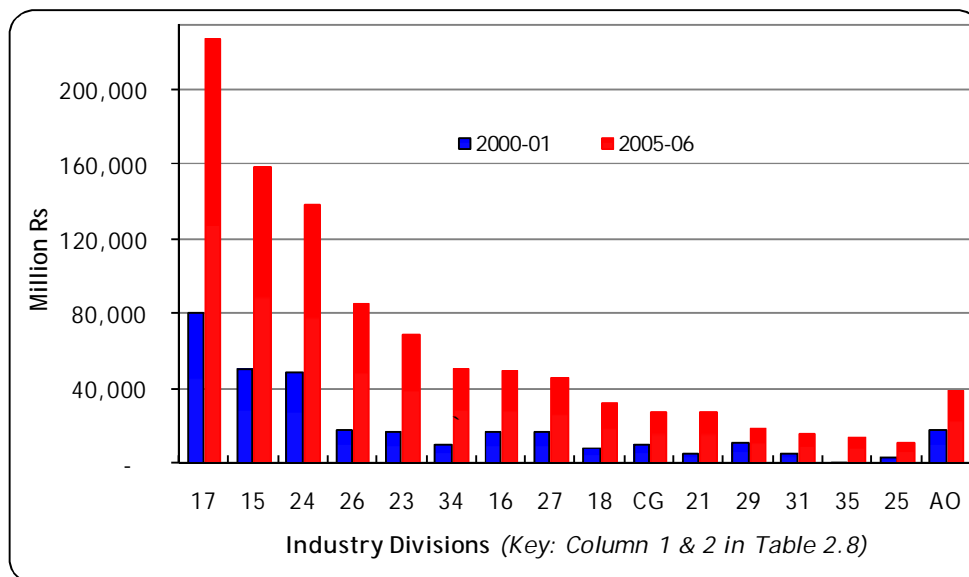
Contribution to GDP at Market Prices

Contribution to GDP at market prices during 2005-06 amounted to Rs 1,013 billion as compared to Rs 320 billion in 2000-01. This indicates an increase of 216% amounting to Rs 692 billion. The details of major contributors are given in the Table 2.9 & Figure 2.6 placed below:

Table 2.9: Contribution to GDP (GVA) at Market Prices in Latest CMIs

Industry		Census of Manufacturing Industries				Change 2005-06 over 2000-01	ACGR 2005-06 over 2000-01
Divisions	Description	2000-01	2005-06	2000-01	2005-06		
		million Rs		% of all industries		%	
All Industries		320,699	1,013,014	100.0	100.0	215.9	25.9
17	Manufacture of textiles	80,357	227,186	25.1	22.4	182.7	23.1
15	Food products	50,442	158,605	15.7	15.7	214.4	25.7
24	Chemicals & chemical products	48,472	138,673	15.1	13.7	186.1	23.4
26	Other non-metallic mineral products	17,593	85,989	5.5	8.5	388.8	37.3
23	Petroleum	17,186	68,972	5.4	6.8	301.3	32.0
34	Motor vehicles & trailers	9,903	51,123	3.1	5.1	416.2	38.9
16	Tobacco products	17,290	49,973	5.4	4.9	189.0	23.6
27	Basic metals	17,126	45,558	5.3	4.5	166.0	21.6
18	Wearing apparel	8,622	32,330	2.7	3.2	275.0	30.3
CG	Cotton ginning	9,982	27,874	3.1	2.8	179.2	22.8
21	Paper & paper products	5,054	27,480	1.6	2.7	443.7	40.3
29	Machinery & equipment	11,194	18,804	3.5	1.9	68.0	10.9
31	Electrical machinery & apparatus	5,139	16,197	1.6	1.6	215.2	25.8
35	Other transport equipment	623	13,900	0.2	1.4	2131.2	86.1
25	Rubber & plastic products	3,664	11,463	1.1	1.1	212.8	25.6
AO	All other industries	18,051	38,888	5.6	3.8	115.4	16.6

Figure 2.6: Contribution to GDP (GVA) at Market Prices in Latest CMI



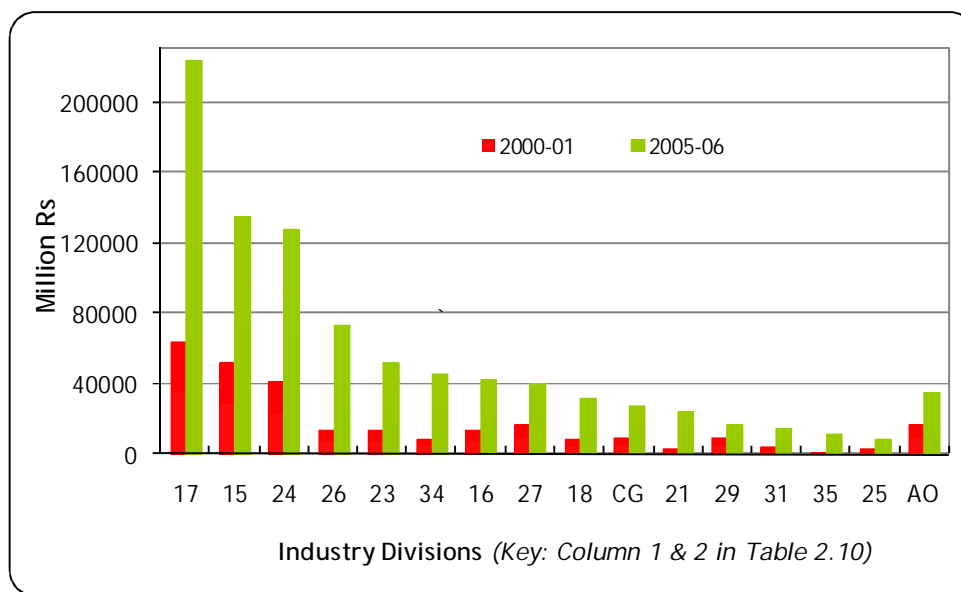
Contribution to GDP at Producers' Prices

Contribution to GDP at producers' prices during 2005-06 amounted to Rs 912 billion as compared to Rs 280 billion in 2000-01 showing an increase of 27% per annum. The textile sector has highest contribution of 25% among all leading industry divisions as shown in Table 2.10 and Figure 2.7 below.

Table 2.10: Contribution to GDP (GVA) at Producers' Prices in Latest CMI

Industry		Census of Manufacturing Industries				Change 2005-06 over 2000-01	ACGR 2005- 06 over 2000-01
Division	Description	2000-01	2005-06	2000-01	2005-06		
		million Rs		% of all industries			
All Industries		279,821	912,147	100.0	100.0	226.0	26.7
17	Manufacture of textiles	63,642	223,682	22.7	24.5	251.5	28.6
15	Food products	52,552	135,034	18.8	14.8	157.0	20.8
24	Chemicals & chemical products	41,331	128,020	14.8	14.0	209.7	25.4
26	Other non-metallic mineral products	14,028	73,915	5.0	8.1	426.9	39.4
23	Petroleum	13,373	51,796	4.8	5.7	287.3	31.1
34	Motor vehicles & trailers	8,376	45,849	3.0	5.0	447.4	40.5
16	Tobacco products	13,421	42,338	4.8	4.6	215.4	25.8
27	Basic metals	16,542	40,942	5.9	4.5	147.5	19.9
18	Wearing apparel	8,546	31,932	3.1	3.5	273.7	30.2
CG	Cotton ginning	9,885	27,671	3.5	3.0	179.9	22.9
21	Paper & paper products	3,018	24,046	1.1	2.6	696.9	51.5
29	Machinery & equipment	10,061	17,002	3.6	1.9	69.0	11.1
31	Electrical machinery & apparatus	4,355	14,639	1.6	1.6	236.2	27.4
35	Other transport equipment	622	11,600	0.2	1.3	1763.8	79.5
25	Rubber & plastic products	3,124	8,420	1.1	0.9	169.6	21.9
AO	All other industries	16,946	35,261	6.1	3.9	108.1	15.8

Figure 2.7 Contribution to GDP (GVA) at Producers' Prices in Latest CMI



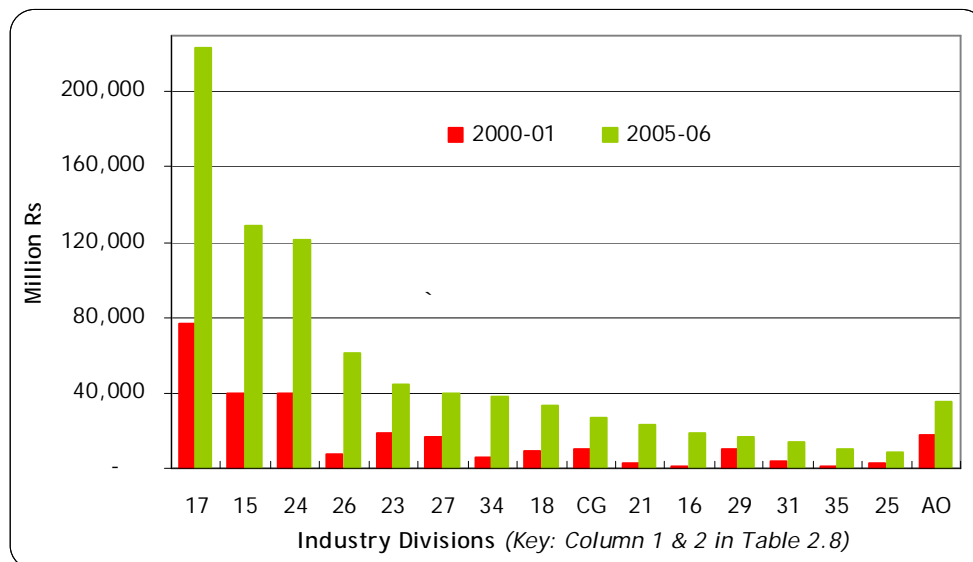
Contribution to GDP at Basic Prices

Contribution to GDP at basic prices during 2005-06 amounted to Rs 844 billion as compared to Rs 263 billion in 2000-01 indicating an annual increase of 26%. The textile sector contributes 26% to GDP at basic prices, the highest share among all major industries. The contribution to GDP at basic prices of the top industry divisions are given at Table 2.11 and Figure 2.8.

Table 2.11: Contribution to GDP (GVA) at Basic Prices in Latest CMI

Industry		Census of Manufacturing Industries				Change 2005-06 over 2000-01	ACGR 2005-06 over 2000-01
Divisions	Description	2000-01	2005-06	2000-01	2005-06		
		million Rs		% of all industries		%	
All Industries		263,542	843,762	100.0	100.0	220.2	26.2
17	Manufacture of textiles	76,695	223,873	29.1	26.5	191.9	23.9
15	Food products	39,592	129,234	15.0	15.3	226.4	26.7
24	Chemicals & chemical products	40,296	121,121	15.3	14.4	200.6	24.6
26	Other non-metallic mineral products	7,534	61,423	2.9	7.3	715.2	52.1
23	Petroleum	18,179	44,210	6.9	5.2	143.2	19.5
27	Basic metals	16,524	39,512	6.3	4.7	139.1	19.0
34	Motor vehicles & trailers	5,930	37,960	2.3	4.5	540.1	45.0
18	Wearing apparel	9,640	33,245	3.7	3.9	244.9	28.1
CG	Cotton ginning	9,776	26,914	3.7	3.2	175.3	22.5
21	Paper & paper products	2,505	22,742	1.0	2.7	807.9	55.5
16	Tobacco products	1,078	18,697	0.4	2.2	1634.7	76.9
29	Machinery & equipment	10,033	16,799	3.8	2.0	67.4	10.9
31	Electrical machinery & apparatus	4,074	14,134	1.6	1.7	247.0	28.3
35	Other transport equipment	684	10,591	0.3	1.3	1449.3	73.0
25	Rubber & plastic products	3,072	8,216	1.2	1.0	167.5	21.7
AO	All other industries	17,930	35,091	4.5	6.8	95.7	14.4

Figure 2.8 Contribution to GDP (GVA) at Basic Prices in Latest CMIs



Contribution to GDP (adjusted for non-response)

The total number of establishments covered in CMI 2005-06 were 6,417 and total employed persons were 941,283. The total contribution to GDP at basic prices, also termed as Gross Value Added at basic prices, stands at Rs 844 billion. There were 3213 defaulter establishments including 2431 units in Punjab, 423 in Sindh, 76 units in NWFP, 74 in Balochistan and 209 units in Islamabad.

Ratios of GDP per employee of 6,417 units reported in CMI 2005-2006 were computed activity wise and applied to defaulting units in CMI 2005-06 in order to work out their contribution to GDP at basic prices. As a result, the large-scale manufacturing sector would generate contribution to GDP (BP) at Rs 993 billion during 2005-06. The detail is given at Annexure-3 in this report.

Table - 2.12: Contribution to GDP (GVA) at Basic Prices adjusted for non-response in CMI 2005-06

Industry		Census of Manufacturing Industries			Ratio of unadjusted to adjusted figures in 2005-06 (%)
Division	Description	2000-01	2005-06		
			unadjusted	adjusted	
		'000' Rs			
	All industries	378,038	843,762	992,602	85.0
CG	Cotton ginning	12,733	26,914	45,025	59.8
15	Food products & beverages	56,052	129,234	144,068	89.7
16	Tobacco products	11,549	18,697	20,146	92.8
17	Textiles	106,391	223,873	258,386	86.6
18	Wearing apparel	12,711	33,245	51,664	64.3
19	Leather products	8,687	7,712	9,015	85.6
20	Wood & wood products	273	4,530	5,726	79.1
21	Paper & paper products	3,796	22,742	27,745	82.0
22	Publishing, printing & reproduction	1,300	2,905	3,085	94.2
23	Coke, petroleum	25,226	45,199	52,249	86.5
24	Chemicals & chemical products	56,817	121,121	127,936	94.7
25	Rubber & plastic products	4,710	8,216	10,642	77.2
26	Other non-metallic mineral products	19,704	61,423	62,367	98.5
27	Basic metals	13,419	38,523	53,518	72.0
28	Fabricated metal products	3,662	7,431	7,816	95.1
29	Machinery & equipment n.e.c.	11,185	16,799	18,980	88.5

Contd

Industry		Census of Manufacturing Industries			Ratio of unadjusted to adjusted figures in 2005-06 (%)
Division	Description	2000-01	2005-06		
			unadjusted	adjusted	
		'000' Rs			
30	Office and computing machinery	22	0	0	0.0
31	Electrical machinery & apparatus	5,430	14,134	16,631	85
32	Radio, TV & communication equipment	1,119	2,924	3,505	83.4
33	Medical & optical instruments	1,720	4,278	7,433	57.6
34	Motor vehicles & trailers	15,792	37,960	41,811	90.8
35	Other transport equipment	1,053	10,591	11,152	95.0
36	Furniture	4,688	5,067	13,458	37.7
37	Recycling	0	243	243	100.0

CMI 2005-06 Weights

Weights have been developed for all large scale manufacturing industries covered in the CMI 2005-06. These weights at 2-digit level may be seen at Table-2.13 below. They are calculated according to contribution to GDP.

Table - 2.13: Comparison of Weights of Contribution to GDP (GVA) at Basic Prices (% of all manufacturing Industries)

Industry		Census of Manufacturing Industries				
Division	Description	2000-01	2005-06			
			including cotton ginning		excluding cotton ginning	
		non-adjusted	adjusted	non-adjusted	adjusted	
	All industries	100.00	100.00	100.00	100.00	100.00
CG	Cotton ginning	3.37	3.19	4.53	0.00	0.00
15	Food products & beverages	14.83	15.32	14.51	15.82	15.20
16	Tobacco products	3.06	2.22	2.03	2.29	2.13
17	Textiles	28.14	26.53	26.03	27.41	27.27
18	Wearing apparel	3.36	3.94	5.20	4.07	5.45
19	Leather products	2.30	0.91	0.91	0.94	0.95
20	Wood & wood products	0.07	0.54	0.58	0.55	0.60
21	Paper & paper products	1.00	2.70	2.80	2.78	2.93
22	Publishing, printing & reproduction	0.34	0.34	0.31	0.36	0.33
23	Coke, petroleum	6.67	5.36	5.26	5.53	5.51
24	Chemicals & chemical products	15.03	14.35	12.89	14.83	13.50
25	Rubber & plastic products	1.25	0.97	1.07	1.01	1.12
26	Other non-metallic mineral products	5.21	7.28	6.28	7.52	6.58
27	Basic metals	3.55	4.57	5.39	4.72	5.65
28	Fabricated metal products	0.97	0.88	0.79	0.91	0.82
29	Machinery & equipment n.e.c.	2.96	1.99	1.91	2.06	2.00
30	Office and computing machinery	0.01	0.00	0.00	0.00	0.00
31	Electrical machinery & apparatus	1.44	1.68	1.68	1.73	1.76
32	Radio, TV & communication equipment	0.30	0.35	0.35	0.36	0.37
33	Medical & optical instruments	0.45	0.51	0.75	0.52	0.78
34	Motor vehicles & trailers	4.18	4.50	4.21	4.65	4.41
35	Other transport equipment	0.28	1.26	1.12	1.30	1.18
36	Furniture	1.24	0.60	1.36	0.62	1.42
37	Recycling	0.00	0.03	0.02	0.03	0.03

Important structural changes may also be seen from figures on labour productivity and labour intensity as shown in tables 2.14 and 2.15 below. Table 2.14 shows the labour productivity in terms of Census Value Added per employee of selected industries and changes in their ranking as measured in the two latest CMIs. Due to inflation labour productivity cannot be compared between the years 2000/01 and 2005/06, but only between industries' figures of same CMI. Although process innovations vary strongly between industries, the changes in the ranking can show some trends in productivity improvements.

Table - 2.14: Ranking of Divisions According to Labour productivity (Census Value Added at Market Prices per Employee) in latest CMIs

Industry		Census Value added at Market Prices in million Rs	Average number of employees during the year		Labour Productivity (CVA / employee) in million Rs		Ranking of Labor productivity in descending order		
Division	Description		Census of Manufacturing Industry of FY ...						
			2000-01	2005-06	2000-01	2005-06	2000-01	2005-06	
All Industries		365,989	1,204,282	691,296	941,283	0.529	1.279	-	-
23	Petroleum	17,716	72,874	2,595	4,227	6.827	17.240	1	1
16	Tobacco products	17,639	53,983	4,362	4,385	4.044	12.311	2	2
34	Motor vehicles & trailers	17,939	59,149	11,191	20,141	1.603	2.937	3	3
24	Chemicals & chemical products	59,588	184,425	48,729	71,650	1.223	2.574	4	4
26	Other non-metallic mineral products	18,876	93,267	19,798	40,417	0.953	2.308	5	5
21	Paper & paper products	5,309	30,843	9,849	14,071	0.539	2.192	10	6
CG	Cotton ginning	10,493	29,190	15,455	13,689	0.679	2.132	8	7
AO	All Other Industries	21,530	64,214	31,454	38,344	0.684	1.675	7	8
31	Electrical machinery & apparatus	5,774	21,746	9,770	13,287	0.591	1.637	9	9
27	Basic metals	11192	49,303	25,815	30,223	0.434	1.631	13	10
15	Food products	58,116	187,010	81,423	122,155	0.714	1.531	6	11
25	Rubber & plastic products	4,288	13,642	8,729	9,310	0.491	1.465	12	12
35	Other transport equipment	795	19,080	8,812	14,231	0.090	1.341	18	13
29	Machinery & equipment	12,939	22,745	24,491	25,151	0.528	0.904	11	14
18	Wearing apparel	10,777	47,614	51,107	62,388	0.211	0.763	16	15
17	Manufacture of textiles	93,017	273,194	315,889	438,657	0.294	0.623	14	16
19	Leather products	4,355	10,336	16,043	17,033	0.271	0.607	15	17
33	Medical & optical instruments	289	5,490	3,971	9,319	0.073	0.589	19	18
36	Furniture	1629	5,926	17,499	10,527	0.093	0.563	17	19

Under the assumption that inflation was relatively uniformly distributed over all industries the Paper & paper products increased its rank from 8 to 4 possibly meaning more process innovations have been made to improve the productivity in the sector. The same holds to a smaller extent for Other transport equipment and Basic metals. On the other hand, labour productivity increased only to a smaller extent in Basic metals, Manufacture of textiles and Machinery & equipment.

Input output Ratios

Input-output ratios have been computed by dividing intermediate consumption with output value for each activity at 2-digit (Division) level. Table 2.15 shows the highest I/O Ratios recorded in CMI 2005-06 are in

Coke, Petroleum (0.81), Cotton Ginning (0.79), Rubber & Plastic products (0.74) and the lowest are in Tobacco products (0.19), Other Non-metallic Mineral products (0.47) and Paper & Paper products (0.56) respectively. Detailed input-output ratios are given below.

Table - 2.15 Comparison of Input output Ratios in latest CMIs

PSIC Code	Activities	Census of Manufacturing Industry			
		Input output Ratios			
		1990-91	1995-96	2000-01	2005-06
1	2	3	4	5	6
	ALL INDUSTRIES	0.70	0.69	0.75	0.69
15	Food products & beverages	0.74	0.73	0.79	0.72
CG	Cotton Ginning	0.93	0.94	0.82	0.79
16	Tobacco products	0.20	0.18	0.33	0.19
17	Textiles	0.68	0.76	0.77	0.71
18	Wearing apparel	0.78	0.71	0.78	0.69
19	Leather products	0.84	0.80	0.75	0.71
20	Wood & wood products	0.63	0.66	0.82	0.61
21	Paper & paper products	0.56	0.57	0.85	0.56
22	Publishing, printing & reproduction	0.33	0.38	0.65	0.68
23	Coke, petroleum	0.90	0.81	0.85	0.81
24	Chemicals & chemical products	0.60	0.58	0.68	0.64
25	Rubber & plastic products	0.67	0.70	0.77	0.74
26	Other non-metallic mineral products	0.48	0.45	0.59	0.47
27	Basic metals	0.72	0.68	0.59	0.69
28	Fabricated metal products	0.71	0.69	0.67	0.65
29	Machinery & equipment n.e.c.	0.68	0.73	0.71	0.72
31	Electrical machinery & apparatus	0.63	0.47	0.72	0.72
33	Medical & optical instruments	0.75	0.76	0.73	0.62
34	Motor vehicles & trailers	0.80	0.75	0.80	0.71
35	Other transport equipment	1.04	0.88	0.84	0.73
36	Furniture	0.69	0.73	0.63	0.65