

Report No: ACS2258 v6

ISLAMIC REPUBLIC OF PAKISTAN

BALUCHISTAN NEEDS ASSESSMENT

DEVELOPMENT ISSUES AND PROSPECTS

PART III – GDP: PERFORMANCE & STRUCTURE

JANUARY 2013

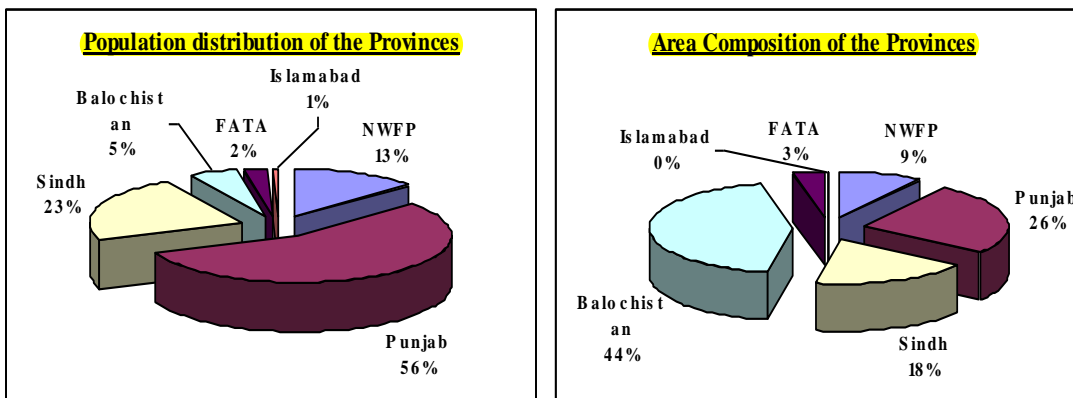
A. GDP ESTIMATES 1991–2005

Balochistan: Estimation of Provincial GDP: 1990/91–2004/05

A.1 Background

1. The province of Balochistan was established on July 1, 1970 after the then West Pakistan was bifurcated into four provinces—the Punjab, Sindh, the NWFP, and Balochistan. Prior to getting the status of a province, Balochistan was governed as an autonomous state comprising mainly four areas, i.e. Tribal, Leased, British Balochistan, and Kalat States. Kalat States included Autonomous States of Kalat, Kharan, Mekran, and Lasbela. These states were ruled by Khans, Nawabs, and Jams and enjoyed independent status until 1951. In 1951 these States joined together and formed Balochistan State Union until the dissolution of one-unit.¹

2. Situated on the eastern borders of Iran and Afghanistan, Balochistan holds a strategic geo-political importance. The same borders brought into Balochistan a variety of invaders who influenced the culture and the society of the area. In terms of its size, Balochistan is the largest province of Pakistan with 44% of Pakistan's total area. However, in terms of population, it is the smallest province with a share of only about 5% in Pakistan's population. These two characteristics combine to give Balochistan a population density of 19 persons per sq. km. as compared to 166 for Pakistan, and 359 for Punjab. This extremely low population density is attributed mainly to the climatic conditions and the rough terrain of the province. Balochistan is hyper-arid, lacks irrigation water and is highly dependent on tubewell water.



3. The province, however, is rich in mineral resources, which unfortunately are not optimally exploited due to the difficult terrain, lack of infrastructure and weak finances of the provincial government. Outside these two sectors, services are the other main source of income.

¹ "One unit" means that the entire territory of the present-day Pakistan was governed as a single province called "West Pakistan." Present-day Bangladesh constituted "East Pakistan." The details regarding Balochistan are from Muhammad Akbar Azad, *Governance, Law and Customs in Balochistan*.

A.2 Estimating Regional Accounts for Balochistan

4. To date, the Income Accounts in Pakistan are estimated only at the national level. This leaves provinces at a disadvantage not in terms of assessing the sources on provincial income and growth, but also in terms of planning for future development. Moreover, lack of regional accounts deprives the researchers of benchmark to base their analytical work on the provincial economy. As such, for the analysis of the Balochistan Economic Report to be meaningful, it was deemed necessary to construct a series of provincial accounts. However, given the limited time and resources available for this exercise, the estimates of provincial should only be considered as a first approximation. The purpose of the exercise is not to derive perfect estimates of sectoral and provincial value added, but to obtain some rough estimates of the composition of Balochistan's economy. These rough estimates, nonetheless, provide a reasonable trend of relative changes in the provincial economy and help place each sector of the provincial economy in the national context. But it should be clear that the present exercise is no substitute for an official series of provincial accounts prepared by the Federal Bureau of Statistics.

A.2.1 The Regional Accounts of Balochistan: Methodology and Data

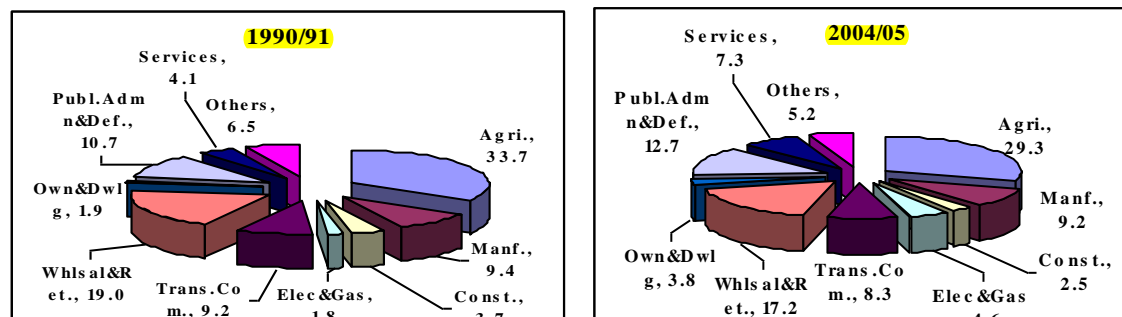
5. **Methodology:** The construction of provincial GDP series is a large and complex undertaking, as disaggregated data are needed for a very large number of province-specific variables. Given time constraints and data inadequacies, as an interim measure, this process relied upon calculating Balochistan's share in the national value-added of various economic sectors using some broad "allocators", or national-GDP apportioning factors.

6. Nonetheless, wherever data were available in a more disaggregated form, value-added in various sectors was estimated on a similar pattern to the methodology used by the Federal Bureau of Statistics (FBS) to estimate national GDP. However, such information at the regional level was not available for all sectors and activities. Even the national data that are published by FBS are available with considerable time lag, and certain key surveys are also not conducted at regular intervals, thus leaving significant data gaps in the national series. We must therefore emphasize the approximate nature of our calculations, and stress that the derived provincial GDP estimates should only be used as broad indications of trends rather than as precise estimates for a given year.

7. Under the present exercise, provincial GDP has been estimated at 1999/2000 prices (on the pattern of National Accounts rebasing by the Federal Bureau of Statistics (FBS)) using a combination of the three traditional approaches—production, expenditure, and income.

8. More specifically, wherever detailed provincial data were available—for example, agriculture, mining and quarrying, and manufacturing—the sectoral value-added were estimated using the production approach. The expenditure approach was used to determine value-added of the construction, ownership of dwellings, electricity and gas distribution, and public administration and defense sub-sectors, whereas a variant of the income approach was applied to estimate value-added in the transport, storage, and communication, banking and insurance, and services sub-sectors. In almost all of these instances, the direct and indirect methods were combined to compute sectoral value-added by apportioning the national income to the province using appropriate allocators.

9. While these allocators were applied only where disaggregated data at the provincial level were not available, clearly the present exercise represents a “second-best” approach to estimate sectoral value-added at the provincial level. In what follows below, we provide a brief sector-by-sector description of the methodology and techniques used to estimate provincial GDP.



10. **Agriculture:** As per the classification of national accounts of Pakistan, the agriculture sector is divided into four sub-sectors, viz. cropped agriculture, livestock, forestry and fisheries. While detailed data were available for cropped agriculture, the data on forestry, and livestock were limited and therefore value-added in these sub-sectors was estimated by applying a mix of direct and indirect (provincial allocators) methods for regional GDP.

11. Overall, the computation of value-added in crop agriculture covers 12 major crops, 27 minor crops, horticulture, fruits, vegetables and non-reported crops. The crop output data for Balochistan and for Pakistan was obtained from published sources,² mainly those of the Federal and Balochistan Bureau of Statistics. The input costs are computed using the same methodology as used by the FBS in its rebasing exercise for National Accounts. This exercise also provides input cost of seed, fertilizer, pesticide, water, ploughing and planking, transport cost and wastage for all four provinces for 1999/00. Similarly, the base-year output and input prices were also obtained from the same rebasing exercise of the FBS.

12. The aggregate value added for major and minor crops was calculated by subtracting the input costs from the respective aggregate gross value of output.³ The major crops used in the value-added analysis are wheat, rice, cottonseed, sugarcane, maize, gram, barley, jawar, bajra, rapeseed & mustard, sesame seed, and tobacco for the years 1990/91 to 2004/05. The crops used in calculating the value-added of minor crops are all lentils, onion, chillies, coriander, fodder, garlic, groundnut, potato, etc.

13. **Livestock:** The livestock sub-sector includes the value-added of milk, meats, poultry, and eggs. The consumption of each of these products in Balochistan vis-à-vis national consumption was taken as the allocator to estimate provincial value-added. The consumption share was computed on the basis of per-capita monthly consumption of each product reported in various issues of the Household Income and Expenditure Surveys (HIES) conducted by FBS. The data series was extended to non-HIES years using standard interpolating techniques. The share of

² The data are obtained from various issues of the Pakistan Statistical Yearbook, Agriculture Statistics of Pakistan, Balochistan Development Statistics, Economic Survey, Agricultural Crops and Livestock Products – Long-Term Trends, and Support Price Policy Issues of Major Crops.

³ As per the FBS’s rebasing exercise, the input cost was derived as a fixed proportion of gross value of output.

each product in total consumption was obtained by converting per capita monthly consumption into total annual consumption for Pakistan and the Province using estimated population shares. The weight of each product in total value-added was derived from the national accounts data.⁴ The weighted share of consumption for each product was then added and applied to national value-added of livestock to get Balochistan's livestock value-added.

Table A.1: Balochistan Gross Value Added of Agriculture Sector At Constant Factor Cost, 1999/2000 prices (Rs Million)

	Major Crops	Minor Crops	Crop Value Added	Livestock	Fishery	Forestry	Agriculture Value Added
1990/91	6,317	13,460	19,777	11,871	1,895	79	32,434
1991/92	6,915	12,707	19,622	11,832	1,540	33	31,299
1992/93	8,180	13,172	21,352	11,797	1,539	27	33,521
1993/94	8,597	14,628	23,226	11,818	1,688	57	35,985
1994/95	8,280	16,320	24,601	11,788	1,757	33	37,168
1995/96	9,845	17,762	27,607	14,081	1,273	24	41,734
1996/97	9,097	17,811	26,908	13,806	1,404	38	41,338
1997/98	10,863	14,499	25,362	16,037	1,139	24	42,116
1998/99	10,204	13,081	23,285	19,417	951	22	43,302
1999/00	9,267	15,482	24,749	23,673	2,109	628	51,209
2000/01	9,576	15,277	24,853	17,678	2,150	718	45,334
2001/02	9,579	14,920	24,499	18,076	2,004	747	45,367
2002/03	11,193	14,948	26,141	17,940	2,442	778	47,273
2003/04	11,473	17,095	28,568	18,116	2,361	518	49,413
2004/05	11,958	20,706	32,664	17,999	1,481	235	51,986

Source: World Bank Staff Estimates.

Table A.2: Balochistan Agriculture GDP Share of National GDP, At Constant Factor Cost (percent)

	Major Crops	Minor Crops	Crop Value Added	Livestock	Fishery	Forestry	Agriculture Value Added
1990/91	2.5	14.9	5.4	4.9	17.0	0.4	5.3
1991/92	2.4	13.7	4.7	4.6	13.1	0.2	4.7
1992/93	3.3	13.7	5.9	4.3	12.4	0.2	5.2
1993/94	3.5	13.5	6.3	4.1	12.3	0.3	5.3
1994/95	3.1	14.1	6.1	3.9	13.8	0.2	5.2
1995/96	3.4	14.6	6.5	3.7	10.3	0.2	5.1
1996/97	3.3	14.5	6.6	3.5	10.8	0.3	5.0
1997/98	3.7	10.9	5.8	4.0	8.3	0.2	5.0
1998/99	3.4	9.5	5.3	4.7	6.9	0.2	5.0
1999/00	2.7	12.3	5.3	5.7	13.9	2.7	5.5
2000/01	3.1	12.6	5.8	4.1	14.6	2.8	5.0
2001/02	3.2	12.7	5.9	4.0	15.5	3.1	5.0
2002/03	3.5	12.5	5.9	3.9	18.3	2.9	5.0
2003/04	3.5	13.8	6.3	3.8	17.3	2.0	5.1
2004/05	3.1	16.2	6.3	3.7	10.6	1.3	5.1

Source: World Bank Staff Estimates.

⁴ FBS authorities provided the data.

Table A.3: Balochistan Gross Value Added of Agriculture Sector At Current Factor Cost (Rs Million)

	Major Crops	Minor Crops	Crop Value Added	Livestock	Fishery	Forestry	Agriculture Value Added
1990/91	6,317	13,460	18,589	11,871	1,895	79	32,434
1991/92	6,915	12,707	17,894	11,832	1,540	33	31,299
1992/93	8,180	13,172	20,157	11,797	1,539	27	33,521
1993/94	8,597	14,628	22,422	11,818	1,688	57	35,985
1994/95	8,280	16,320	23,590	11,788	1,757	33	37,168
1995/96	9,845	17,762	26,356	14,081	1,273	24	41,734
1996/97	9,097	17,811	26,091	13,806	1,404	38	41,338
1997/98	10,863	14,499	24,916	16,037	1,139	24	42,116
1998/99	10,204	13,081	22,912	19,417	951	22	43,302
1999/00	9,267	15,482	24,798	23,673	2,109	628	51,209
2000/01	9,576	15,277	24,788	17,678	2,150	718	45,334
2001/02	9,579	14,920	24,539	18,076	2,004	747	45,367
2002/03	11,193	14,948	26,112	17,940	2,442	778	47,273
2003/04	11,473	17,095	28,418	18,116	2,361	518	49,413
2004/05	11,958	20,706	32,272	17,999	1,481	235	51,986

Source: World Bank Staff Estimates.

Table A. 4: Balochistan Gross Value Added of Agriculture Sector Share of Balochistan, at Current Factor Cost (percent)

	Major Crops	Minor Crops	Crop Value Added	Lives Stock	Fishery	Forestry	Agriculture Value Added
1990/91	6.0	26.8	12.0	11.1	35.3	0.9	11.8
1991/92	5.0	23.7	9.3	9.5	24.4	0.4	9.4
1992/93	6.4	22.2	10.7	8.1	18.3	0.3	9.5
1993/94	5.6	20.0	9.8	6.7	18.9	0.5	8.5
1994/95	4.2	19.6	8.4	5.5	19.0	0.3	7.2
1995/96	4.6	17.8	8.5	5.7	12.5	0.2	7.2
1996/97	3.9	17.0	7.7	4.0	12.5	0.3	5.9
1997/98	3.8	11.8	6.1	4.4	9.6	0.2	5.3
1998/99	3.3	9.2	5.1	5.0	6.4	0.2	5.0
1999/00	2.7	12.3	5.3	5.7	13.9	2.7	5.5
2000/01	2.9	11.7	5.4	4.0	13.0	2.7	4.8
2001/02	3.0	11.2	5.5	3.8	12.2	2.9	4.7
2002/03	3.0	11.5	5.2	3.5	14.7	2.7	4.5
2003/04	2.8	13.5	5.3	3.1	14.1	1.6	4.2
2004/05	2.4	13.4	5.0	2.6	8.5	1.0	3.8

Source: World Bank Staff Estimates.

14. **Fishery:** The provincial data for the quantity and prices of Marine and Inland Fishery is available in provincial as well as national publications on agricultural statistics. The gross value of the fishery (in constant factor cost) was calculated directly by subtracting the input cost from the aggregate gross value of output. The derived value added for the inland fishery is then adjusted to account for the under reporting of fishery output (taken to be 100% of the value reported). Input cost of 16% for inland and 36% for Marine fish has been used for estimating value added. In addition to that, 6.5% auction charges have been deducted from the gross value of Marine fish to arrive to the constant value added of Fishery sector.

15. **Forestry:** The major components of Balochistan forestry are firewood and Mazri productions. The value added of this sector is estimated by assuming that the provincial share of added in the national sectoral value added would be in the same proportion as the province's share of value of output in aggregate national value. This implicitly assumes that the technology used in the sector is the same at the provincial and national level. In other words, the provincial value-added in the forestry sector was derived from the national (sectoral) value-added by using the share of firewood and Mazri production in Balochistan to the national production as allocator.

16. **Manufacturing:** The manufacturing sector is sub-divided into large-scale and small-scale manufacturing. Large-scale manufacturing includes units that employ 20 or more workers on any working day during the year and use power, while the small-scale manufacturing includes those units that employ 10-19 workers in any day of the year.

17. Value-added in Balochistan's large scale manufacturing sub-sector is estimated using the same methodology as used by FBS for estimating the sectoral value added at the national level. The FBS uses the Census of Manufacturing Industries (CMI) to derive sectoral value added in CMI years. Similarly, estimates for value added for Balochistan large-scale manufacturing sector were estimated in the benchmark years (i.e. 1990/91, 1995/96, and 2000/01) on the basis of Balochistan's share of value-added from the CMI for the census years. For the years where data were not available, the FBS estimates national value added for the sector by interpolating the value-added using the (Quantum Index of Manufacturing (QIM)). A similar exercise was undertaken to derive a complete time series for value-added in large scale manufacturing sector in Balochistan.

18. It may, however, be mentioned that provincial QIM suffers from significant deficiencies. Most notable is that QIM is calculated without full reporting of manufacturing out by the Hub industrial state. This can adversely affect the credibility and robustness of value added estimates. However, it is assumed that degree of under-reporting would remain as a fixed proportion of the value used in QIM and therefore would not lead to a large estimation error. The value added for post 2000/01 period was calculated using the fixed provincial share in national sectoral value-added (as derived from the 2000/01 CMI (at 2.1%).

19. Furthermore, the CMI data used have their own deficiencies such as time-lag, considerable non-response, under-reporting of output value and over-reporting of input cost (supposedly due to fear of taxation), and under-coverage of non-registered companies. However, despite these shortcomings the CMI data were used assuming that data problems in the any province were no different to those at the national level. The benchmark data points obtained from the CMI were then calculated from QIM growth rates.

Table A.5: Balochistan Manufacturing and Mining Sector Profile 1990/91-2004/05 VA in Mil Rs.;
Share in Percentage

	Large Scale Manuf.		Small Scale Manuf.		Mining	
	Value added	Share of National	Value added	Share of National	Value added	Share of National
1990/91	1,781	1.5	744	1.2	11471	38.2
1991/92	2,121	1.5	877	1.2	13678	41.2
1992/93	2,375	1.6	983	1.2	14145	41.0
1993/94	2,943	1.6	1,101	1.2	16056	39.8
1994/95	3,527	1.7	1,252	1.2	16564	39.5
1995/96	4,080	1.7	1,449	1.2	17447	33.2
1996/97	4,842	1.8	1,702	1.2	17589	32.9
1997/98	4,865	1.6	1,888	1.2	21110	33.5
1998/99	5,906	1.8	2,018	1.2	24536	36.3
1999/00	7,130	2.1	2,225	1.2	28177	34.8
2000/01	8,785	2.1	2,362	1.2	36355	34.2
2001/02	8,482	2.0	2,620	1.2	36466	31.2
2002/03	9,410	2.0	2,923	1.2	38713	28.2
2003/04	11,875	1.9	3,361	1.2	49749	23.9
2004/05	14,634	1.9	3,855	1.2	34673	19.5

Source: World Bank Staff Estimates

20. The value-added in **small-scale manufacturing** has been estimated using the **Census of Small Household Manufacturing Industries (SHMI)**. The urban and rural value-added breakdown for this sub-sector was only available in the 1996/97 census. The value-added in small-scale manufacturing was derived by using the share of the Balochistan in the national value-added in the small-scale industry (SHMI). This share was then applied to the national sectoral value-added.⁵

21. **Mining:** Like the agriculture, livestock, and manufacturing sub-sectors, the mining sub-sector is also estimated using the production approach. **Mining consists of four main sub-sectors, i.e. crude oil, natural gas, coal and other minerals.** The **other mineral sector is estimated taking at least 20 minerals for all four provinces out of which 7-8 major minerals are produced in Balochistan in significant quantity.** The gross value of each of the four main components (i.e. crude oil, natural gas, coal, and other minerals) was calculated using respective base-year prices. Since input costs of all these products were not available at the regional level, the share of Balochistan's total value of mineral production to Pakistan's value of mineral production was used as the allocator to estimate the provincial value-added for this sector. The various sources used for this sub-sector include the Energy Year Books of various years for coal, gas, and crude oil production and their respective prices, and other mineral production data from the Statistical Year Book of Pakistan.

22. **Construction:** Ideally, the construction sector **value**-added should be calculated through the expenditure approach, as is done by FBS at the national level. However, since the provincial expenditure data on construction were not available, Balochistan's share of construction workers was used, instead, to derive estimates for 1990/91 and 2004/05. These are deemed appropriate as

⁵ The Federal Bureau of Statistics has calculated a growth rate of 5.31% for 1997/98, 6.86% for 1998.99, and 7.51 for 1999/00, based on the small household manufacturing index (SHMI) at national level, and a study by Quaidian Economic Consultants of Quaid-e-Azam University, Islamabad respectively.

a large part of construction in Pakistan is a labor-intensity activity. The missing years were then interpolated to get the full series. The data on percentage distribution of employment in construction industry in Pakistan and the Balochistan were obtained from FBS's Labor Force Surveys of various years.

23. **Electricity and Gas:** In the Electricity and Gas sub-sector, value-added was estimated on the basis of electricity generation, electricity consumption, and natural gas consumption. The data were taken from various volumes of *Energy Year Books* (1996/97 to 2002/03) published annually by the Hydrocarbon Development Institute of Pakistan. Data for electricity generation, both for hydel and thermal electricity; were obtained from published sources. These figures were multiplied with a single year (i.e. constant) price to get constant rupee value of electricity generation. The value of electricity consumption was then taken as a proxy for value of electricity transmission and distribution. Similarly, the value of gas consumption was taken as a proxy for the value of gas distribution.

Table A. 6: Balochistan Gross Value Added of Selected Sector At Constant Factor Cost (Rs Million)

	Construction	Elec. & Gas Distrib.	Trans. & Comm	Fin. & Insr.
1990/91	1,723	2,092	19,633	1,108
1991/92	1,505	2,677	23,632	1,030
1992/93	1,808	3,442	27,441	978
1993/94	1,935	4,408	26,802	1,440
1994/95	1,987	6,531	26,273	1,971
1995/96	2,313	9,266	24,920	2,888
1996/97	2,730	9,185	24,302	4,138
1997/98	4,262	10,210	26,346	1,867
1998/99	4,133	10,220	27,759	1,285
1999/00	4,441	12,745	28,249	1,759
2000/01	4,881	13,844	29,211	2,127
2001/02	5,194	9,970	29,017	3,540
2002/03	5,105	7,966	30,869	2,901
2003/04	4,273	11,298	32,603	2,622
2004/05	4,782	10,866	34,430	2,818

Source: World Bank Staff Estimates.

24. The aggregate values of the three components (in constant prices) were then added for both Pakistan and Balochistan to get constant value generated in the sub-sector at the national and provincial level. Finally, the provincial value-added in electricity and gas was derived by applying to the national value-added estimate the derived ratio of the provincial value to national value.

Table A.7: Balochistan Gross Value Added of Selected Sector Share of National GDP, at constant factor cost (percent)

	Construction	Elec. & Gas Distrib.	Trans. & Comm	Fin. & Insr.
1990/91	2.4	2.8	7.6	1.2
1991/92	2.0	3.3	8.3	1.1
1992/93	2.2	3.9	9.0	1.0
1993/94	2.4	4.9	8.5	1.3
1994/95	2.4	6.2	8.0	1.6
1995/96	2.7	8.0	7.5	2.1
1996/97	3.2	8.2	7.1	2.7
1997/98	4.9	8.3	7.2	1.6
1998/99	5.0	7.1	7.2	0.9
1999/00	5.1	9.1	7.0	1.3
2000/01	5.6	11.5	6.9	1.9
2001/02	5.8	8.9	6.8	2.7
2002/03	5.5	8.1	6.9	2.2
2003/04	5.2	7.3	7.1	1.8
2004/05	4.9	6.8	7.2	1.5

Source: World Bank Staff Estimates.

25. **Transport, Storage, and Communication:** The transport and storage sub-sector consists of six sub-sectors: road transport, air transport, communications, storage, and the railways. The share of value-added of this sector in the total at the provincial level was estimated from the monthly average incomes of employed households as is published in various years of HIES. Also the provincial shares in earned incomes and the sample household size of various years were used to determine the weighted provincial shares of incomes. These weighted shares were then, applied as allocators to the national value added to derive value addition of Balochistan and other provinces.

26. **Wholesale and Retail Trade:** Economic activities in this sub-sector include wholesale and retail trade, including import and export of goods, purchase and sale agents and brokers/auctioneering. This sector is also estimated on the pattern of transport, storage and communications i.e. the income approach.

Table A.8: Share of Balochistan in the Wholesale and Trade Sector At Constant Factor Cost of 1999/00

Aggregate Value Added of Agriculture and Manufacturing (Mil Rs.)			
	Pakistan	Balochistan	Share (%) Allocator
1990/91	984,383	38,809	3.9
1991/92	1,062,198	38,694	3.6
1992/93	1,054,206	40,747	3.9
1993/94	1,106,795	43,214	3.9
1994/95	1,162,807	44,887	3.9
1995/96	1,277,085	50,076	3.9
1996/97	1,285,366	49,490	3.9
1997/98	1,343,731	49,843	3.7
1998/99	1,382,490	51,924	3.8
1999/00	1,446,410	60,515	4.2
2000/01	1,474,856	55,775	3.8
2001/02	1,501,274	55,594	3.7
2002/03	1,579,986	58,101	3.7
2003/04	1,692,266	61,782	3.7
2004/05	1,847,925	65,978	3.6

Source: World Bank Staff Estimates.

Table A.9: Balochistan Gross Value Added At Constant Factor Cost (Rs Million)

	Ownership & Dwellings	Public Admin. & Defence	Other Services
1990/91	3,486	10,790	6,129
1991/92	3,670	11,547	5,926
1992/93	3,864	12,448	5,599
1993/94	4,068	12,041	8,309
1994/95	4,283	12,034	10,925
1995/96	4,509	12,412	13,649
1996/97	4,747	12,187	17,338
1997/98	4,998	12,912	18,100
1998/99	5,261	13,487	19,035
1999/00	5,539	15,428	19,036
2000/01	5,748	16,331	19,038
2001/02	5,949	17,283	20,156
2002/03	6,143	17,655	20,741
2003/04	6,359	20,219	18,224
2004/05	6,582	22,665	15,547

Source: World Bank Staff Estimates.

Table A.10: **Balochistan Gross Value Added Share of National GDP, at Constant Factor Cost**
(percent)

	Ownership & Dwellings	Public Admin. & Defence	Other Services
1990/91	5.0	6.5	3.4
1991/92	5.0	6.8	3.1
1992/93	5.0	7.1	2.7
1993/94	5.0	6.8	3.8
1994/95	5.0	6.6	4.7
1995/96	5.0	6.6	5.5
1996/97	5.0	6.3	6.5
1997/98	5.0	6.6	6.4
1998/99	5.0	6.7	6.3
1999/00	5.0	7.0	5.9
2000/01	5.0	7.3	5.6
2001/02	5.0	7.2	5.5
2002/03	5.0	6.8	5.3
2003/04	5.0	7.6	4.4
2004/05	5.0	8.4	3.6

Source: World Bank Staff Estimates.

27. **Finance and Insurance:** Since **wages** and **salaries** account for a dominant portion of value added in this sector, the income approach is probably the best one to apply to estimate total value-added in this sub-sector.

28. **Ownership and Dwellings:** At national level, the value-added in this sub-sector is measured by the **rent accruing from ownership of dwellings** (**rented** or **self occupied**). In the absence of provincial expenditures on rent data, the income approach using various HIES is applied to obtain value added for Balochistan.

29. **Public Administration and Defense:** This value-added in the Public Administration and Defense sector comprise mainly of **wages** and **salaries** of public sector employees. The **FBS** computes value added separately for the federal, each provincial and aggregated local government. The sectoral value added in Balochistan was estimated by attributing the federal and local governments value-added to Balochistan on the basis of population share and adding it to the FBS data. However, the FBS data were available only for post-1994/95 years. Provincial sectoral value-added for 1990/91 to 1994/95 were, therefore, derived from the national account data by using the share of current expenditure in Balochistan to the aggregate provincial current expenditure as an allocator.

Table A. 11: **Intermediate calculations for estimating Public Administration and Defense**

Years	Federal	Punjab	Sindh	NWFP	Balochistan	District & Local Govts.	Wages & Salaries	Depreciati on	Pak. Gross Value- Added	Balochist an share (Allocato r)	Public Admin (constant)	Public Admin (current)	Deflator
1999/00	106956	50337	28822	15990	9415	5484	217004	3287	220291	7.0	15428	15428	1.0
2000/01	113234	52624	33031	16085	10654	6062	231690	3349	235039	6.9	16331	17048	1.0
2001/02	124163	59536	40143	19992	12689	7775	264298	3519	267817	6.5	17283	18681	1.1
2002/03	140738	62864	47739	17604	12545	8297	289787	4364	294151	6.0	17655	19474	1.1
2003/04	145366	69339	43112	19806	14545	9642	301809	6239	308048	6.6	20219	23607	1.2
2004/05	151542	76847	46818	23296	19031	10817	328351	7218	335569	6.8	22665	28949	1.3

30. **Services:** This sector comprises incomes of the private sector persons who are engaged in private education, medical & health professions, and other household and community services. Provincial data for these categories were not available; the value-added of Balochistan in this sector was therefore estimated on the basis of the income share of the Balochistan in the overall national income of service sector. The income data points were obtained from the various *Household Income and Expenditure Surveys* which were then, interpolated to get a continuous series of allocators. The allocators are finally applied to the national data series to estimate provincial value added of this sector.

Table A.12: Balochistan Gross Product
At constant factor cost of 1999/00

Rs Million

	Agriculture	Large Scale Manufacturing	Small Scale Manufacturing	Manufacturing Total	Mining and Quarrying	Construction	Transport and Electricity and Gas & Distribution	Storage and Wholesale Trade	Finance and Insurance	Ownership of Dwellings	Public Admin. & Defence	Other Services	Balochistan GDP	Population (000)	Per Capita Real Income (Rs)	
1990/91	32,434	3,792	1,395	5,187	25,819	1,723	2,092	19,633	19,941	1,108	3,486	10,790	6,129	128,342	5555	23103
1991/92	31,299	4,197	1,469	5,667	28,523	1,505	2,677	23,632	21,136	1,030	3,670	11,547	5,926	136,612	5699	23971
1992/93	33,521	4,484	1,548	6,031	29,209	1,808	3,442	27,441	21,437	978	3,864	12,448	5,599	145,779	5845	24941
1993/94	35,985	4,795	1,630	6,425	29,648	1,935	4,408	26,802	21,482	1,440	4,068	12,041	8,309	152,541	5993	25452
1994/95	37,168	4,991	1,717	6,708	28,155	1,987	6,531	26,273	21,879	1,971	4,283	12,034	10,925	157,915	6144	25703
1995/96	41,734	5,281	1,809	7,090	25,372	2,313	9,266	24,920	22,566	2,888	4,509	12,412	13,649	166,717	6297	26476
1996/97	41,338	5,430	1,905	7,334	25,579	2,730	9,185	24,302	22,075	4,138	4,747	12,187	17,338	170,953	6452	26495
1997/98	42,116	5,274	2,006	7,280	24,808	4,262	10,210	26,346	21,779	1,867	4,998	12,912	18,100	174,678	6610	26427
1998/99	43,302	6,137	2,113	8,250	27,695	4,133	10,220	27,759	22,267	1,285	5,261	13,487	19,035	182,694	6770	26987
1999/00	51,209	7,130	2,225	9,355	28,177	4,441	12,745	28,249	23,303	1,759	5,539	15,428	19,036	199,242	6932	28743
2000/01	45,334	8,032	2,343	10,376	29,232	4,881	13,844	29,211	24,962	2,127	5,748	16,331	19,038	201,084	7096	28337
2001/02	45,367	7,777	2,491	10,268	28,196	5,194	9,970	29,017	26,276	3,540	5,949	17,283	20,156	201,214	7263	27706
2002/03	47,273	8,151	2,648	10,799	27,237	5,105	7,966	30,869	27,371	2,901	6,143	17,655	20,741	204,059	7431	27459
2003/04	49,413	9,407	2,812	12,219	26,625	4,273	11,298	32,603	29,128	2,622	6,359	20,219	18,224	212,982	7602	28016
2004/05	51,986	10,612	2,987	13,599	23,845	4,782	10,866	34,430	31,768	2,818	6,582	22,665	15,547	218,889	7775	28153

Table A.13: Balochistan Gross Domestic Product**At current prices**

Rs Million

	Agriculture	Large Scale Manufacturing	Small Scale Manufacturing	Manufacturing Total	Mining and Quarrying	Construction	Transport and Storage	Electricity, Gas & Communications	Retail Trade	Wholesale Trade	Finance and Insurance	Ownership of Dwellings	Public Admin. & Defence	Other Services	Balochistan GDP (000)	Population	Per Capita Nominal Income (Rs)
1990/91	14,576	1,781	744	2,525	11,471	820	1,040	7,605	9,000	739	1,620	4,382	2,797	56,575	5555	10184	
1991/92	15,729	2,121	877	2,998	13,678	776	1,458	10,767	10,409	749	1,889	5,106	2,967	66,524	5699	11673	
1992/93	18,466	2,375	983	3,358	14,145	1,002	1,862	14,804	11,252	768	2,193	5,944	3,054	76,848	5845	13148	
1993/94	22,623	2,943	1,101	4,044	16,056	1,170	2,449	16,329	12,876	1,314	2,535	6,314	5,046	90,755	5993	15143	
1994/95	26,781	3,527	1,252	4,779	16,564	1,313	4,183	17,592	15,040	2,020	2,950	7,596	7,470	106,286	6144	17299	
1995/96	29,812	4,080	1,449	5,529	17,447	1,717	7,289	18,022	17,068	3,078	3,395	9,247	10,340	122,944	6297	19524	
1996/97	35,379	4,842	1,702	6,544	17,589	2,305	7,693	19,844	18,429	4,779	3,937	9,558	14,685	140,743	6452	21813	
1997/98	39,757	4,865	1,888	6,753	21,110	3,903	9,640	23,263	19,351	2,730	4,495	10,660	16,527	158,189	6610	23932	
1998/99	43,677	5,906	2,018	7,924	24,536	3,939	10,697	25,602	20,995	1,804	5,048	12,224	18,378	174,825	6770	25825	
1999/00	51,207	7,130	2,225	9,355	28,177	4,441	12,745	28,249	23,303	1,759	5,539	15,428	19,036	199,239	6932	28743	
2000/01	47,435	8,785	2,362	11,147	36,355	5,260	15,295	35,493	26,587	2,213	6,238	17,048	19,880	222,952	7096	31419	
2001/02	48,568	8,482	2,620	11,102	36,466	5,540	11,956	36,862	28,369	3,826	6,343	18,681	21,789	229,502	7263	31601	
2002/03	53,165	9,410	2,923	12,333	38,713	5,550	9,707	42,257	30,393	3,233	6,779	19,474	22,886	244,490	7431	32900	
2003/04	59,661	11,875	3,361	15,236	49,749	5,958	13,894	47,753	34,054	3,055	7,337	23,607	21,027	281,332	7602	37007	
2004/05	69,594	14,634	3,855	18,490	34,673	7,468	13,935	57,223	40,981	3,589	8,299	28,949	19,602	302,802	7775	38945	

Table A.14: Balochistan Gross Domestic Product at constant factor cost**Annual Growth Rate**

	Agriculture Value Added	Large Scale Manufacturing	Small Scale Manufacturing	Manufacturing Total	Mining and Quarrying	Construction	Transport and Storage	Electricity, Gas & Communications	Retail Trade	Wholesale Trade	Finance and Insurance	Ownership of Dwellings	Public Admin. & Defence	Other Services	Balochistan Total Value Added	Pakistan - Total Value Added
1991/92	-3.5	10.7	5.3	9.3	10.5	-12.7	28.0	20.4	6.0	-7.0	5.3	7.0	-3.3	6.4	7.2	7.2
1992/93	7.1	6.8	5.3	6.4	2.4	20.2	28.6	16.1	1.4	-5.1	5.3	7.8	-5.5	6.7	2.5	2.5
1993/94	7.4	6.9	5.3	6.5	1.5	7.0	28.1	-2.3	0.2	47.2	5.3	-3.3	48.4	4.6	4.5	4.5
1994/95	3.3	4.1	5.3	4.4	-5.0	2.7	48.2	-2.0	1.8	37.0	5.3	-0.1	31.5	3.5	4.9	4.9
1995/96	12.3	5.8	5.3	5.7	-9.9	16.4	41.9	-5.2	3.1	46.5	5.3	3.1	24.9	5.6	7.2	7.2
1996/97	-0.9	2.8	5.3	3.5	0.8	18.0	-0.9	-2.5	-2.2	43.3	5.3	-1.8	27.0	2.5	2.1	2.1
1997/98	1.9	-2.9	5.3	-0.7	-3.0	56.1	11.2	8.4	-1.3	-54.9	5.3	5.9	4.4	2.2	2.3	2.3
1998/99	2.8	16.4	5.3	13.3	11.6	-3.0	0.1	5.4	2.2	-31.2	5.3	4.4	5.2	4.6	4.4	4.4
1999/00	18.3	16.2	5.3	13.4	1.7	7.5	24.7	1.8	4.7	36.9	5.3	14.4	0.0	9.1	3.9	3.9
2000/01	-11.5	12.7	5.3	10.9	3.7	9.9	8.6	3.4	7.1	20.9	3.8	5.9	0.0	0.9	2.0	2.0
2001/02	0.1	-3.2	6.3	-1.0	-3.5	6.4	-28.0	-0.7	5.3	66.4	3.5	5.8	5.9	0.1	3.1	3.1
2002/03	4.2	4.8	6.3	5.2	-3.4	-1.7	-20.1	6.4	4.2	-18.1	3.3	2.2	2.9	1.4	4.7	4.7
2003/04	4.5	15.4	6.2	13.2	-2.2	-16.3	41.8	5.6	6.4	-9.6	3.5	14.5	-12.1	4.4	7.5	7.5
2004/05	5.2	12.8	6.2	11.3	-10.4	11.9	-3.8	5.6	9.1	7.5	3.5	12.1	-14.7	2.8	8.6	8.6
Average (1991-2005)	3.4	7.6	5.6	7.1	-0.6	7.6	12.5	4.1	3.4	6.9	4.6	5.4	6.9	3.9	4.6	4.6
Average (2000-2005)	0.3	8.3	6.1	7.8	-3.3	1.5	-3.1	4.0	6.4	9.9	3.5	8.0	-4.0	1.9	5.1	5.1

Table A.15: Balochistan Gross Domestic Product at current prices
Annual Growth Rate

	Agriculture	Large Scale Manufacturing	Small Scale Manufacturing	Manufacturing Total	Mining and Quarrying	Construction	Electricity and Gas	Transport, Storage & Communications	Wholesale & Retail Trade	Finance and Insurance	Ownership of Dwellings	Public Admin. & Defence	Other Services	Balochistan	Pakistan - Total Value Added
1991/92	7.9	19.1	17.9	18.7	19.2	-5.4	40.2	41.6	15.7	1.3	16.6	16.5	6.1	17.6	21.1
1992/93	17.4	12.0	12.1	12.0	3.4	29.1	27.7	37.5	8.1	2.5	16.1	16.4	3.0	15.5	5.5
1993/94	22.5	23.9	12.1	20.4	13.5	16.8	31.5	10.3	14.4	71.1	15.6	6.2	65.2	18.1	20.2
1994/95	18.4	19.8	13.7	18.2	3.2	12.2	70.8	7.7	16.8	53.7	16.4	20.3	48.1	17.1	22.1
1995/96	11.3	15.7	15.7	15.7	5.3	30.8	74.2	2.4	13.5	52.4	15.1	21.7	38.4	15.7	12.5
1996/97	18.7	18.7	17.5	18.4	0.8	34.2	5.5	10.1	8.0	55.3	16.0	3.4	42.0	14.5	20.9
1997/98	12.4	0.5	10.9	3.2	20.0	69.3	25.3	17.2	5.0	-42.9	14.2	11.5	12.5	12.4	14.0
1998/99	9.9	21.4	6.9	17.3	16.2	0.9	11.0	10.1	8.5	-33.9	12.3	14.7	11.2	10.5	9.2
1999/00	17.2	20.7	10.3	18.1	14.8	12.7	19.1	10.3	11.0	-2.5	9.7	26.2	3.6	14.0	5.4
2000/01	-7.4	23.2	6.2	19.2	29.0	18.4	20.0	25.6	14.1	25.8	12.6	10.5	4.4	11.9	2.3
2001/02	2.4	-3.5	10.9	-0.4	0.3	5.3	-21.8	3.9	6.7	72.9	1.7	9.6	9.6	2.9	2.4
2002/03	9.5	10.9	11.6	11.1	6.2	0.2	-18.8	14.6	7.1	-15.5	6.9	4.2	5.0	6.5	9.4
2003/04	12.2	26.2	15.0	23.5	28.5	7.4	43.1	13.0	12.0	-5.5	8.2	21.2	-8.1	15.1	10.0
2004/05	16.6	23.2	14.7	21.4	-30.3	25.3	0.3	19.8	20.3	17.4	13.1	22.6	-6.8	7.6	18.2
Average (1991-2005)	11.8	16.2	12.5	15.3	8.2	17.1	20.4	15.5	11.4	11.9	12.4	14.4	14.9	12.7	13.1

**Table A.16: Balochistan Gross Domestic Product
Sectoral shares of Balochistan GDP at current prices**

Percentage

	Agriculture	Large Scale Manufacturing	Small Scale Manufacturing	Manufacturing Total	Mining and Quarrying	Construction	Electricity and Gas	Transport, Storage & Communications	Wholesale & Retail Trade	Finance and Insurance	Ownership of Dwellings	Public Admin. & Defence	Other Services	Balochistan - Total Value Added
1990/91	25.8	3.1	1.3	4.5	20.3	1.5	1.8	13.4	15.9	1.3	2.9	7.7	4.9	100
1991/92	23.6	3.2	1.3	4.5	20.6	1.2	2.2	16.2	15.6	1.1	2.8	7.7	4.5	100
1992/93	24.0	3.1	1.3	4.4	18.4	1.3	2.4	19.3	14.6	1.0	2.9	7.7	4.0	100
1993/94	24.9	3.2	1.2	4.5	17.7	1.3	2.7	18.0	14.2	1.4	2.8	7.0	5.6	100
1994/95	25.2	3.3	1.2	4.5	15.6	1.2	3.9	16.6	14.2	1.9	2.8	7.1	7.0	100
1995/96	24.2	3.3	1.2	4.5	14.2	1.4	5.9	14.7	13.9	2.5	2.8	7.5	8.4	100
1996/97	25.1	3.4	1.2	4.6	12.5	1.6	5.5	14.1	13.1	3.4	2.8	6.8	10.4	100
1997/98	25.1	3.1	1.2	4.3	13.3	2.5	6.1	14.7	12.2	1.7	2.8	6.7	10.4	100
1998/99	25.0	3.4	1.2	4.5	14.0	2.3	6.1	14.6	12.0	1.0	2.9	7.0	10.5	100
1999/00	25.7	3.6	1.1	4.7	14.1	2.2	6.4	14.2	11.7	0.9	2.8	7.7	9.6	100
2000/01	21.3	3.9	1.1	5.0	16.3	2.4	6.9	15.9	11.9	1.0	2.8	7.6	8.9	100
2001/02	21.2	3.7	1.1	4.8	15.9	2.4	5.2	16.1	12.4	1.7	2.8	8.1	9.5	100
2002/03	21.7	3.8	1.2	5.0	15.8	2.3	4.0	17.3	12.4	1.3	2.8	8.0	9.4	100
2003/04	21.2	4.2	1.2	5.4	17.7	2.1	4.9	17.0	12.1	1.1	2.6	8.4	7.5	100
2004/05	23.0	4.8	1.3	6.1	11.5	2.5	4.6	18.9	13.5	1.2	2.7	9.6	6.5	100

Table A.17: Balochistan Gross Domestic Product
Percentage of National GDP

	Percentage													Balochist
	Agriculture	Large Scale Manufacturing	Small Scale Manufacturing	Manufacturing Total	Mining and Quarrying	Construction	Electricity and Gas	Transport, Storage & Communication	Wholesale & Retail Trade	Finance and Insurance	Ownership of Dwellings	Public Admin. & Defence	Other Services	Value Added
1990/91	5.3	1.5	1.2	1.4	38.2	2.4	2.8	7.6	4.2	1.2	5.0	6.5	3.4	5.1
1991/92	4.7	1.5	1.2	1.4	41.2	2.0	3.3	8.3	4.2	1.1	5.0	6.8	3.1	5.0
1992/93	5.2	1.6	1.2	1.4	41.0	2.2	3.9	9.0	4.1	1.0	5.0	7.1	2.7	5.2
1993/94	5.3	1.6	1.2	1.5	39.8	2.4	4.9	8.5	4.0	1.3	5.0	6.8	3.8	5.2
1994/95	5.2	1.7	1.2	1.5	39.5	2.4	6.2	8.0	3.9	1.6	5.0	6.6	4.7	5.2
1995/96	5.1	1.7	1.2	1.5	33.2	2.7	8.0	7.5	3.8	2.1	5.0	6.6	5.5	5.2
1996/97	5.0	1.8	1.2	1.6	32.9	3.2	8.2	7.1	3.7	2.7	5.0	6.3	6.5	5.1
1997/98	5.0	1.6	1.2	1.5	33.5	4.9	8.3	7.2	3.7	1.6	5.0	6.6	6.4	5.2
1998/99	5.0	1.8	1.2	1.6	36.3	5.0	7.1	7.2	3.6	0.9	5.0	6.7	6.3	5.2
1999/00	5.5	2.1	1.2	1.8	34.8	5.1	9.1	7.0	3.7	1.3	5.0	7.0	5.9	5.6
2000/01	5.0	2.1	1.2	1.8	34.2	5.6	11.5	6.9	3.8	1.9	5.0	7.3	5.6	5.7
2001/02	5.0	2.0	1.2	1.7	31.2	5.8	8.9	6.8	3.9	2.7	5.0	7.2	5.5	5.5
2002/03	5.0	2.0	1.2	1.7	28.2	5.5	8.1	6.9	3.9	2.2	5.0	6.8	5.3	5.4
2003/04	5.1	1.9	1.2	1.7	23.9	5.2	7.3	7.1	3.8	1.8	5.0	7.6	4.4	5.4
2004/05	5.1	1.9	1.2	1.7	19.5	4.9	6.8	7.2	3.7	1.5	5.0	8.4	3.6	4.9

B. GDP ESTIMATES 1999/2000–2010/11

31. For the purposes of the present report, a set of provincial GDP figures for the decade 1999/2000–2010/11 was estimated. The methodology of this estimation differs somewhat (apart from the rebasing of the series on the year 1999/2000) from that described in the earlier section. The present section sketches out the procedures used for the new estimates.

32. In the past, the World Bank has endeavored to estimate provincial GDPs by using some broad “allocators” to derive the shares of each province in sectoral value added and the national income. In doing this provincial GDP was estimated using a combination of the three traditional approaches—production, expenditure, or income. More specifically, wherever detailed provincial data were available, for example, agriculture, mining and quarrying, manufacturing, and wholesale and retail trade, sectoral value-added were estimated using the production approach. The expenditure approach was used to compute value-added of the construction, ownership of dwellings, electricity and gas distribution, and public administration and defense sub-sectors, whereas a variant of the income approach was applied to estimate value-added in the transport, storage, and communication, banking and insurance, and services sub-sectors. In almost all of these instances, the direct and indirect methods were combined to compute sectoral value-added by apportioning the national income to the province using appropriate allocators. While these allocators were applied only where disaggregated data at the provincial level were not available, clearly the present exercise represents a “second-best” approach to estimate sectoral value-added at the provincial level.

33. The analysis of estimation has been carried out to facilitate the economic assessment for the two provinces’ reports: Public Expenditure Review for Khyber Pakhtunkhwa, and Development Issues and Prospects for Balochistan.

Estimation Methodology

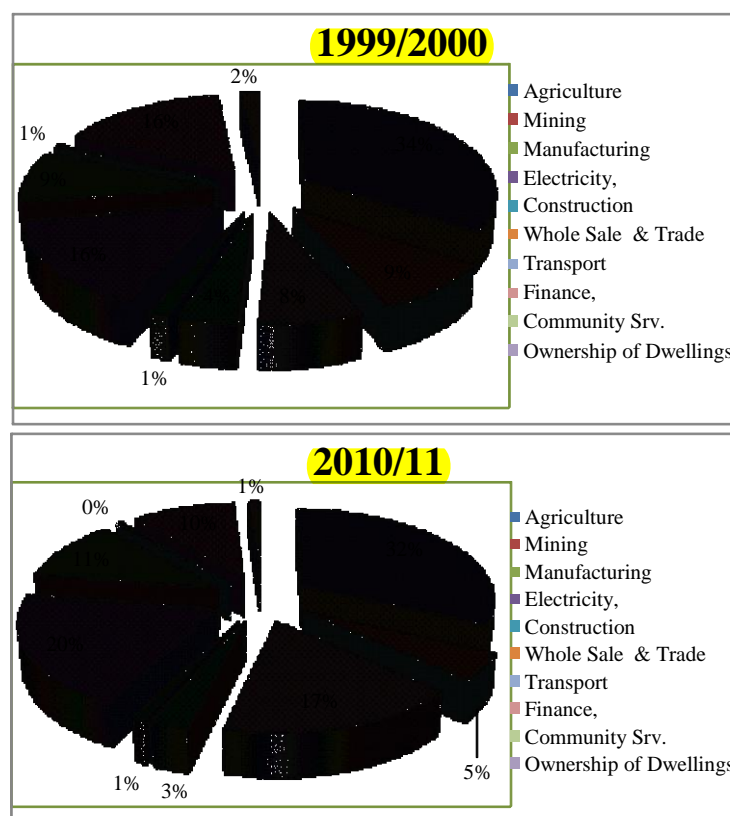
34. In order to estimate provincial GDPs for the present report, the following data sources have been used.

- Agricultural Statistics of Pakistan, of various years
- Pakistan Statistical Yearbook 2011
- Economic Survey of Pakistan 2010/11
- Labor Force Survey 2011
- Household Integrated Economic Surveys (HIESs) for 2005/06, 2007/08 and 2010/11
- Pakistan Energy Year Book, 2011
- National Institute of Population Studies; Estimates/forecast of annual provincial population
- Livestock Census of 1996 and 2006

35. The Agricultural Statistics of Pakistan was used as the main source for actual production of the major and minor crops. The crops have been selected in compliance with the national rebasing exercise of 1999/00 done by the then Pakistan Bureau of

Statistics (Pakistan Bureau of Statistics as of now). The Pakistan Statistical Year Book of 2011 along with its previous years' publications, and the Household Integrated Economic Surveys (HIESs) for 2005/06, 2007/08 and 2010/11 were used as the prime data bases.⁶ While the Statistical Year Books provides most of the actual data in the analysis, the HIES provides sectoral sources of household income. The Labor Force Surveys was useful to extract data on labor force and sectoral employment etc. The Energy Year Book provides information on the Energy sector production and the prices/cost of generation. Information on National GDP, its deflators, Consumer Prices, etc. is pulled together from the Economic Survey of Pakistan. The National Institute of Populations Studies provided the Bank few years back, the estimates of provincial population and its forecast for future years, based on the 1998 population census. On requesting the newer set of data on Population estimates, it was stated that since there is no new census after 1998, the same estimates are being used for various analyses.

Figure B.1: Sectoral Shares of Balochistan GDP 1999/2000 and 2010/11



36. The sector wise methodology is discussed below.

37. **Agriculture:** Value-added in agriculture in all provinces has been estimated by applying provincial allocators to the national value-added estimate for this sub-sector. Overall, the computation of value-added in crop agriculture is based on 12 major crops and 8 groups of minor crops. The groups are classified as pulses, vegetable, fruits,

⁶ For the years when no HIES was conducted, i.e. 2006/07, 2008/09 and 2009/10, the estimates were obtained by interpolation.

condiments, oilseed, flower and foliage, fodder, and other miscellaneous crops. The crop output data for the provinces and for Pakistan was obtained from published sources.⁷ Due to the non-availability of input costs of agriculture, production allocators were used to estimate value-added for the crop sub-sector. Every province share of total crop production in national output was assumed to remain the same as its share of total national value-added. These output shares (allocators) were used to estimate value-added of wheat, rice, cottonseed, sugarcane, maize, gram, barley, jawar, bajra, rapeseed & mustard, sesame seed and tobacco for major crops for the years 1999/00 to 2010/11. The simple addition of the value-added of each crop represents the total value-added of major crops. Similarly, value-added of minor crops was estimated using lentils (mash, moong, masoor), potatoes and onions, oilseeds, fruits etc. as the main minor crops.

Table B.1: Balochistan Gross Value Added of Agriculture Sector At Constant Factor Cost						
						Million Rupee
	Major Crops	Minor Crops	Livestock	Forestry	Fishery	Total Agri
1999/00	9,214	15,566	77,732	628	1,276	104,416
2000/01	9,689	15,334	85,408	771	1,270	112,472
2001/02	9,735	15,242	95,068	327	1,101	121,473
2002/03	11,248	14,971	116,318	726	1,179	144,442
2003/04	11,496	17,112	124,486	1,568	1,187	155,849
2004/05	11,468	17,973	108,074	307	1,190	139,012
2005/06	13,276	18,599	104,089	34	1,496	137,493
2006/07	14,348	17,295	109,428	257	1,628	142,957
2007/08	12,109	20,293	121,315	271	1,619	155,606
2008/09	14,721	21,282	122,627	231	1,641	160,502
2009/10	13,746	24,108	127,728	236	1,646	167,464
2009/11	13,281	26,215	128,181	235	1,657	169,569

Table B.2: Balochistan Share of National Agriculture Value Added At Constant Factor Cost						
						Percentage share
	Major Crops	Minor Crops	Livestock	Forestry	Fishery	Total Agri
1999/00	2.7	12.4	18.6	2.7	8.4	11.3
2000/01	3.1	12.6	19.7	3.0	8.6	12.4
2001/02	3.2	13.0	21.2	1.3	8.5	13.4
2002/03	3.5	12.5	25.3	2.7	8.8	15.3
2003/04	3.5	13.8	26.3	6.0	8.7	16.2
2004/05	3.0	14.3	22.3	1.7	8.7	13.5
2005/06	3.6	14.7	18.5	0.2	9.0	12.6
2006/07	3.6	13.8	19.0	1.5	8.5	12.6
2007/08	3.2	14.6	20.2	1.9	7.8	13.5
2008/09	3.7	15.5	19.8	1.6	7.7	13.4
2009/10	3.5	19.1	19.7	1.6	7.6	13.9
2009/11	3.5	19.8	19.1	1.6	7.5	13.9

38. **Livestock:** The livestock sub-sector includes the value-added of actual livestock population, including the newborn. The census livestock population was available for 1996 and 2006 while the other years were estimated by the provincial share of livestock value of the national value of livestock in the census year under consideration. Actual data on slaughtering, poultry and milk, was also taken into account while calculating

⁷ The data are obtained from various issues of the Pakistan Statistical Yearbook, Agriculture Statistics of Pakistan, Provincial Development Statistics, Economic Survey, Agricultural Crops and Livestock Products – Long-Term Trends, and Support Price Policy Issues of Major Crops.

Livestock value of each province. The weight of each product in total value-added was derived from the national accounts data.⁸

39. **Fishery:** The provincial value added in the fishery sector is derived from the national value-added in the sector by using the provincial share in total fish production as weight.

40. **Forestry:** The major component of forestry is timber and firewood production. The value added of this sector was assumed to be proportionate to the timber and firewood productions shares of Pakistan production of timber and firewood. The constant share of 1999/00 is used to draw the final estimates. In other words, the provincial value-added in the forestry sector was derived from the national (sectoral) value-added by using the production share of Timber and firewood to the national shares multiply with the 1999/00 prices of these productions.

41. **Manufacturing:** The manufacturing sub-sector is sub-divided into large-scale and small-scale manufacturing. Large-scale manufacturing includes units that employ 20 or more workers on any working day during the year and use power, while the small-scale manufacturing includes those units that employ 10-19 workers in any day of the year.

42. Value-added in the provincial large scale manufacturing sub-sector is estimated on the pattern of national GDP calculations by PBS based on the Census of Manufacturing Industries data and the Quantum Index of Manufacturing (QIM) estimates. The provincial Bureau of Statistics conducts monthly surveys of industrial production and employment in their respective provinces and estimate QIM based on these data. The survey reports cover about 90% of the total industrial units. The methodology used to estimates the monthly index was to measure the percentage increase in the current month's production of any item from the average monthly production of 1999/00. The weighted percentage increase was calculated with the assigned weights based on 1999/00 CMI data for each item.

43. The benchmark estimates (1999/00) of large scale manufacturing value-added are derived on the basis of the provincial shares of value-added from the CMI for the census years. The CMI data has its deficiencies of time lag, considerable non-response, under-reporting of output value and over-reporting of input cost (supposedly due to fear of taxation), and under-coverage of non-registered companies. However, despite these shortcomings the CMI data were used assuming that data problems in the all provinces were no different to those at the national level. The benchmark data points obtained from the CMI were then interpolated for the years where the CMI was not conducted using the annual percentage increase in the provincial QIMs.⁹

⁸ PBS authorities kindly provided the data.

⁹ The Provincial Bureau of Statistics bases the QIM on monthly surveys of industrial production and employment uniformly in all provinces.

Table B.3: Balochistan Manufacturing and Mining Sector Profile 1999/00-2010/11

	Large Scale Manuf.		Small Scale Manuf.		Slaughtering		Mining	
	Value added(Mil Rs)	Share of National (%)	Value added(Mil Rs)	Share of National (%)	Value added(Mil Rs)	Share of National (%)	Value added(Mil Rs)	Share of National (%)
1999/00	6,556	1.9	4,738	3.6	11,476	22.1	27750	34.2
2000/01	8,032	2.1	5,431	3.8	11,815	22.1	28807	33.7
2001/02	10,373	2.7	6,220	4.1	14,184	25.8	27735	30.7
2002/03	13,848	3.3	6,793	4.1	14,601	25.8	26765	27.8
2003/04	20,326	4.1	7,410	4.2	14,953	25.8	26149	23.5
2004/05	30,199	5.1	7,967	4.2	15,135	25.5	25242	20.6
2005/06	40,383	6.3	9,642	4.7	13,489	20.2	24830	19.4
2006/07	43,912	6.3	10,032	4.5	14,042	20.2	24210	18.3
2007/08	45,689	6.3	10,420	4.3	16,144	22.3	24455	17.7
2008/09	42,005	6.3	10,929	4.2	16,826	22.3	23515	17.1
2009/10	44,075	6.3	11,267	4.1	17,554	22.3	22172	15.8
2009/11	44,509	6.3	12,027	4.0	18,955	23.1	21680	15.4

44. The small scale value-added, which includes value added on Slaughtering, has been estimated based on the Census of Small Household Manufacturing Industries (SHMI). The growth for the next year was given in the survey as 5.31% at the national level. The subsequent study by the Quaidian Economic Consultants Quaid-i-Azam University, Islamabad in 1999/00 estimated the growth rates of 6.86% and 7.51 for the years 1998/99 and 1999/00 respectively. Due to unavailability of such surveys at provincial levels, the current analysis of SSM is based on estimating employed labor force shares of each province to the national employed labor force. The slaughtering is estimated using provincial shares of monthly expenditures on milk, all kind of meat, and eggs. The data on percentage distribution of consumption of these products has been obtained from HIES of various year.¹⁰

45. **Construction:** Ideally, the construction sub-sector value-added should be calculated through the expenditure approach, as is done by PBS at the national level. However, since the provincial expenditure data on construction was not available, the provincial share of construction workers was used instead to derive estimates for 1999/00 to 2010/11. The construction worker's data was missing for some years which were then interpolated to get the full series. The data on percentage distribution of employment in construction industry in Pakistan and the provinces were obtained from PBS's Labor Force Surveys of various years.

¹⁰ The Pakistan Bureau of Statistics has calculated a growth rate of 5.31% based on the small household manufacturing index (SHMI) at national level, until 1997/98. For 1998/99 and 1999/00 the growth rates recommended by Quaid-i-Azam University was 6.86% and 7.51% respectively.

Table B. 4: Balochistan Gross Value Added of Selected Sector At Constant Factor Cost (Rs Million)				
	Construction	Elec. & Gas Distrib.	Trans. & Comm	Fin. & Insr.
1999/00	4,431	12,832	28,249	1,759
2000/01	4,802	13,944	29,211	2,127
2001/02	5,194	10,041	29,017	3,540
2002/03	5,027	8,028	30,869	2,901
2003/04	4,328	11,788	32,603	2,622
2004/05	5,132	11,917	34,621	2,854
2005/06	3,850	9,265	20,645	6,125
2006/07	4,943	11,564	28,902	5,706
2007/08	4,798	8,965	37,566	4,863
2008/09	4,145	15,872	39,154	4,467
2009/10	5,108	18,939	40,476	3,938
2009/11	4,462	15,054	41,236	3,668
Table B.5: Balochistan Gross Value Added of Selected Sector Share of National GDP, at constant factor cost (percent)				
	Construction	Elec. & Gas Distrib.	Trans. & Comm	Fin. & Insr.
1999/00	5.07	9.2	7.0	1.3
2000/01	5.47	11.6	6.9	1.9
2001/02	5.82	9.0	6.8	2.7
2002/03	5.42	8.1	6.9	2.2
2003/04	5.23	7.6	7.1	1.8
2004/05	5.23	8.2	7.3	1.5
2005/06	3.56	8.6	4.2	2.3
2006/07	3.67	10.3	5.6	1.9
2007/08	3.78	10.4	7.0	1.4
2008/09	3.67	11.6	7.0	1.4
2009/10	3.52	11.8	7.1	1.4
2009/11	3.05	11.9	7.1	1.4

46. **Electricity and Gas:** In the **Electricity and Gas sub-sector**, value-added was estimated on the basis of **electricity generation, electricity consumption, and natural gas consumption**. The data were taken from various **Energy Year Books (1999/00 to 2010/11)** published annually by the **Hydrocarbon Development Institute of Pakistan**. Data were obtained for electricity generation for **hydel and thermal electricity**; these figures were multiplied with a single year (i.e. constant) price to get constant rupee value of electricity generation. The value of **electricity consumption** was then taken a **proxy** for value of **electricity transmission and distribution**. Similarly, the value of **gas consumption** was taken as a **proxy** for the **value of gas distribution**. These three constant (i.e. at a single year price) values of the three components were then added for both Pakistan and the provinces to get constant value generated in the sub-sector at the national and provincial level. Finally, the provincial value-added in electricity and gas was derived by applying to the national value-added estimate the derived ratio of the provincial value to national value.

47. To estimate the value added for all other sectors, the income approach has been used. The average household income from each sector and the number of surveyed household were used to get an estimate of total sample income derived from each sector in each province. The HIES uses a stratified random sampling methodology. However, in order to get more robust estimates, the survey over-samples the two smaller provinces (KP and Balochistan) and under-samples Punjab and Sindh. As such, the total household income derived from HIES need to be adjusted by “raising” factors to make sample estimates in line with national population shares.

48.

49. To make these estimates more meaningful, two additional factors have to be kept in mind. First, the HIES distinguishes between “earned” and “unearned” income. While the former includes income that a household receive as an employer, employee of through self employment; whereas the latter includes income from housing (i.e. rent) and as transfer payments. Rents, both actual and imputed, is income from “ownership of dwellings” and is a part of Pakistan’s national accounts classification. Transfers payments could be discarded for calculation of provincial GDP because if these payments originates from outside the province (i.e. from other provinces or abroad) they can be considered as “factor income from abroad”, which is part of GNP and not GDP. If these payments originate from within the province, it would imply “double counting” of income, as the source of these payments is already accounted in earned or rental income.

50. Second, as some of the earned income could be originating from outside the province (i.e. from other provinces), there is a need to make necessary adjustments. It is assumed that earned income originating outside the province is likely to be small on the net basis and therefore could be ignored for the purpose of calculating provincial GDP.¹¹

51. The adjusted total household income (derived from each sector) for each province, and for the country, were used to derive provincial shares in each income generating sector. These shares are then applied to the national value-added in each sector to get the valued-added estimates for each province, which total up to give an estimate of provincial GDP.

¹¹ It is assumed the, for example, that earned income originating outside Sindh but reported by Sindhi households would be more or less counterbalanced by earned income originating in Sindh but reported by household in other provinces.

Table 1: Gross Provincial Value Added at constant factor cost @ 1999/00

At 1999/00 Million Rupees

Pakistan	Agriculture, Fishing & Forestry	Mining and Quarrying	Manufacturing	Electricity, Gas, Water	Construction	Whole Sale and related trade	Transport and Storage	Finance, Real Estate etc.	Community, Social, Personal Srv.	Ownership of Dwellings	TOTAL	Growth rate Total GDP	Share of Pakistan's Total GDP
1999/00	923,609	81,052	522,801	139,624	87,386	620,591	400,983	132,454	541,842	110,425	3,560,768		100.0
2000/01	903,499	85,528	571,357	120,464	87,846	648,532	422,195	112,455	564,589	114,593	3,631,057	2.0%	100.0
2001/02	904,433	90,431	596,841	112,026	89,241	667,662	427,296	131,761	606,870	118,604	3,745,165	3.1%	100.0
2002/03	941,942	96,418	638,044	98,932	92,789	709,031	445,552	130,081	648,215	122,466	3,923,470	4.8%	100.0
2003/04	964,853	111,473	727,439	155,078	82,818	770,366	461,276	141,768	677,446	126,764	4,219,281	7.5%	100.0
2004/05	1,027,403	122,621	840,243	146,214	98,190	866,143	477,171	185,501	705,978	131,214	4,600,679	9.0%	100.0
2005/06	1,092,098	128,288	912,953	107,391	108,195	905,382	496,073	265,056	776,176	135,820	4,927,432	7.1%	100.0
2006/07	1,137,037	132,254	988,301	111,944	134,536	949,072	519,486	304,514	835,259	140,587	5,252,990	6.6%	100.0
2007/08	1,148,851	138,047	1,036,101	85,893	127,076	991,893	539,297	338,386	889,609	145,521	5,440,674	3.6%	100.0
2008/09	1,195,002	137,348	998,846	136,591	112,884	978,254	558,703	312,818	951,520	150,629	5,532,595	1.7%	100.0
2009/10	1,201,944	140,378	1,054,276	160,706	144,985	1,023,513	574,101	277,555	1,008,301	155,916	5,741,675	3.8%	100.0
2010/11	1,216,523	140,971	1,085,440	126,780	146,169	1,061,887	581,388	260,172	1,100,779	158,707	5,878,816	2.4%	100.0
PUNJAB													
1999/00	537,660	12,368	240,191	55,142	54,287	347,593	210,032	66,351	268,172	49,079	1,840,875		51.7
2000/01	522,478	12,788	259,948	52,067	54,321	359,777	220,905	56,893	279,515	50,932	1,869,624	1.6%	51.5
2001/02	519,228	13,530	274,638	48,063	54,956	369,231	223,193	67,142	300,683	52,714	1,923,379	2.9%	51.4
2002/03	533,312	13,691	297,359	42,681	56,317	388,790	231,440	65,795	324,120	54,431	2,007,935	4.4%	51.2
2003/04	538,312	13,933	341,805	66,664	49,679	416,031	238,261	71,105	340,879	56,341	2,133,010	6.2%	50.6
2004/05	603,765	14,403	399,296	64,829	58,900	478,405	246,889	91,754	356,467	58,319	2,373,028	11.3%	51.6
2005/06	637,797	16,151	436,053	48,877	60,311	551,256	270,891	143,335	409,361	72,793	2,646,826	11.5%	53.7
2006/07	665,281	15,563	473,627	52,441	79,547	585,197	280,562	156,709	437,430	77,675	2,842,032	6.7%	53.8
2007/08	659,193	16,179	492,411	40,166	78,887	619,729	288,028	165,291	462,600	82,811	2,905,296	2.9%	53.4
2008/09	686,233	15,622	477,074	63,269	70,072	612,848	300,474	163,974	498,706	85,244	2,973,517	2.3%	53.7
2009/10	688,375	15,424	507,378	73,818	91,550	643,352	310,895	155,403	532,610	87,745	3,106,550	4.5%	54.1
2010/11	700,536	15,593	523,242	54,647	94,602	670,353	317,007	154,963	585,985	88,817	3,205,744	3.2%	54.5
SINDH													
1999/00	205,784	39,903	204,982	42,460	14,056	174,243	96,807	49,655	141,478	40,905	1,010,275		28.4
2000/01	195,557	42,575	230,397	31,570	14,855	182,903	99,145	41,057	145,693	42,449	1,026,202	1.6%	28.3
2001/02	185,809	47,878	232,549	32,676	15,748	183,793	97,541	46,723	154,917	43,935	1,041,568	1.5%	27.8
2002/03	188,013	54,155	243,011	28,926	16,230	192,592	102,919	47,182	169,610	45,365	1,088,003	4.5%	27.7
2003/04	205,051	69,572	273,528	46,391	14,888	219,337	107,810	52,545	179,817	46,957	1,215,895	11.8%	28.8
2004/05	207,677	80,560	311,002	42,112	17,651	245,577	110,160	70,703	191,286	48,606	1,325,334	9.0%	28.8
2005/06	230,896	82,722	326,149	29,891	23,963	218,579	118,430	72,015	203,148	41,430	1,347,224	1.7%	27.3
2006/07	240,593	84,769	353,826	28,269	27,271	225,207	125,243	93,065	219,616	41,077	1,438,936	6.8%	27.4
2007/08	252,336	88,260	371,613	22,417	23,677	229,279	131,289	114,894	234,977	40,648	1,509,389	4.9%	27.7
2008/09	262,654	89,597	353,305	35,358	21,089	222,277	135,431	100,306	251,347	42,053	1,513,416	0.3%	27.4
2009/10	262,993	89,242	371,773	42,345	27,127	229,099	138,565	83,758	266,364	43,507	1,554,775	2.7%	27.1
2010/11	263,774	84,177	382,898	34,146	23,751	234,527	139,718	73,599	290,815	44,264	1,571,668	1.1%	26.7
K.P.													
1999/00	75,759	1,031	54,859	29,190	14,612	51,050	65,895	14,689	83,615	14,902	405,601		11.4
2000/01	73,154	1,359	55,733	22,882	13,867	52,849	72,934	12,378	89,043	15,464	409,663	1.0%	11.3
2001/02	78,363	1,288	58,876	21,246	13,344	56,202	77,545	14,356	97,967	16,006	435,194	6.2%	11.6
2002/03	76,215	1,808	62,431	19,297	15,215	56,770	80,324	14,203	99,803	16,527	442,592	1.7%	11.3
2003/04	65,731	1,819	69,416	30,236	13,923	55,222	82,602	15,497	99,372	17,107	450,924	1.9%	10.7
2004/05	76,988	2,416	76,643	27,356	16,507	64,381	85,501	20,190	98,349	17,707	486,040	7.8%	10.6
2005/06	86,761	4,584	87,238	19,357	20,070	61,522	86,107	43,581	121,718	18,161	549,099	13.0%	11.1
2006/07	88,125	7,711	92,863	19,670	22,774	60,619	84,779	49,034	130,889	17,953	574,418	4.6%	10.9
2007/08	81,715	9,153	99,824	14,344	19,714	56,816	82,414	53,338	139,306	17,707	574,332	0.0%	10.6
2008/09	85,506	8,614	98,707	22,092	17,578	58,035	83,644	44,071	148,005	18,425	584,676	1.8%	10.6
2009/10	87,234	13,540	102,229	25,604	21,200	62,499	84,165	34,456	155,781	19,172	605,878	3.6%	10.6
2010/11	92,186	19,521	103,809	22,933	23,355	68,111	83,427	27,942	168,915	19,616	629,815	4.0%	10.7
BALUCHISTAN													
1999/00	104,406	27,750	22,770	12,832	4,431	47,705	28,249	1,759	48,576	5,539	304,016		8.5
2000/01	112,311	28,807	25,278	13,944	4,802	53,002	29,211	2,127	50,337	5,748	325,568	7.1%	9.0
2001/02	121,032	27,735	30,777	10,041	5,194	58,436	29,017	3,540	53,303	5,949	345,023	6.0%	9.2
2002/03	144,402	26,765	35,243	8,028	5,027	70,879	30,869	2,901	54,682	6,143	384,940	11.6%	9.8
2003/04	155,760	26,149	42,690	11,788	4,328	79,776	32,603	2,622	57,378	6,359	419,452	9.0%	9.9
2004/05	138,973	25,242	53,301	11,917	5,132	77,781	34,621	2,854	59,875	6,582	416,276	-0.8%	9.0
2005/06	136,644	24,830	63,513	9,265	3,850	74,025	20,645	6,125	41,949	3,436	384,282	-7.7%	7.8
2006/07	143,038	24,210	67,985	11,564	4,943	78,049	28,902	5,706	47,323	3,882	415,604	8.2%	7.9
2007/08	155,608	24,455	72,253	8,965	4,798	86,069	37,566	4,863	52,726	4,355	451,658	8.7%	8.3
2008/09	160,609	23,515	69,760	15,872	4,145	85,094	39,154	4,467	53,463	4,907	460,986	2.1%	8.3
2009/10	163,342	22,172	72,896	18,939	5,108	88,563	40,476	3,938	53,546	5,492	474,472	2.9%	8.3
2010/11	160,028	21,680	75,491	15,054	4,462	88,896	41,236	3,668	55,064	6,010	471,588	-0.6%	8.0

Table 2: Gross Provincial Value Added at current Prices

At current Million Rupees													
Pakistan	Agriculture, Fishing & Forestry	Mining and Quarrying	Manufacturing	Electricity, Gas, Water	Construction	Whole Sale and related trade	Transport and Storage	Finance, Real Estate etc.	Community, Social, Personal Srv.	Ownership of Dwellings	TOTAL	Growth rate Total GDP	Share of Pakistan's Total GDP
1999/00	923,609	81,052	522,801	139,624	87,386	620,591	400,983	132,454	541,842	110,425	3,560,768		100.0
2000/01	945,301	106,370	608,132	133,089	94,670	690,755	512,997	116,997	589,473	124,359	3,922,143	10.1%	100.0
2001/02	968,291	116,952	642,850	134,350	95,197	720,862	542,828	142,424	656,009	126,454	4,146,217	5.7%	100.0
2002/03	1,059,316	137,044	725,434	120,556	100,880	787,293	609,929	144,989	715,155	135,139	4,535,735	9.4%	100.0
2003/04	1,164,751	208,290	902,486	190,713	115,497	900,651	675,623	165,230	785,316	146,264	5,254,821	15.9%	100.0
2004/05	1,314,234	182,051	1,136,634	187,267	153,333	1,102,596	759,711	236,254	894,529	165,441	6,132,050	16.7%	100.0
2005/06	1,457,222	219,682	1,370,793	153,338	179,885	1,362,783	908,409	364,320	1,058,065	184,812	7,259,310	18.4%	100.0
2006/07	1,685,240	252,541	1,567,313	168,770	225,239	1,542,170	1,012,206	447,270	1,227,819	206,166	8,334,734	14.8%	100.0
2007/08	2,017,181	301,469	1,950,522	145,874	260,340	1,942,892	1,155,873	556,679	1,464,692	239,010	10,034,532	20.4%	100.0
2008/09	2,611,526	346,412	2,069,482	284,091	294,990	2,234,243	1,587,934	621,508	1,891,393	298,789	12,240,368	22.0%	100.0
2009/10	2,978,950	371,233	2,487,069	366,827	352,530	2,618,196	1,846,735	616,116	2,237,158	345,555	14,220,369	16.2%	100.0
2010/11	3,698,658	431,907	3,167,947	326,426	396,777	3,307,163	2,132,844	649,701	2,785,634	401,687	17,298,744	21.6%	100.0
PUNJAB													
1999/00	537,660	12,368	240,191	55,142	54,287	347,593	210,032	66,351	268,172	49,079	1,840,875		51.7
2000/01	547,171	15,904	275,509	57,524	58,541	383,200	268,416	59,191	291,833	55,272	2,012,561	9.3%	51.3
2001/02	554,585	17,498	295,644	57,641	58,624	398,652	283,540	72,576	325,029	56,203	2,119,992	5.3%	51.1
2002/03	601,781	19,460	361,917	52,010	61,227	431,704	316,825	73,336	357,590	60,063	2,335,912	10.2%	51.5
2003/04	652,908	26,034	450,110	81,983	69,282	486,391	348,977	82,872	395,238	65,008	2,658,802	13.8%	50.6
2004/05	772,922	21,384	530,393	83,032	91,978	609,007	393,076	116,857	451,731	73,531	3,143,912	18.2%	51.3
2005/06	840,556	27,658	641,154	69,789	100,274	829,752	496,056	197,014	558,032	99,050	3,859,335	22.8%	53.2
2006/07	970,322	29,718	734,552	79,062	133,178	950,901	546,668	230,174	643,016	113,908	4,431,498	14.8%	53.2
2007/08	1,154,764	35,332	909,086	68,215	161,616	1,213,907	617,329	271,920	761,646	136,013	5,329,827	20.3%	53.1
2008/09	1,515,235	39,402	967,080	131,591	183,114	1,399,690	854,001	325,785	991,307	169,091	6,576,295	23.4%	53.7
2009/10	1,726,950	40,790	1,159,799	168,497	222,603	1,645,725	1,000,068	344,964	1,181,724	194,469	7,685,589	16.9%	54.0
2010/11	2,191,140	47,772	1,468,742	140,702	256,797	2,087,761	1,162,954	386,973	1,482,894	224,794	9,450,530	23.0%	54.6
SINDH													
1999/00	205,784	39,903	204,982	42,460	14,056	174,243	96,807	49,655	141,478	40,905	1,010,275		28.4
2000/01	205,118	52,950	247,935	34,879	16,009	194,811	120,468	42,715	152,114	46,066	1,113,066	10.2%	28.4
2001/02	200,515	61,920	251,696	39,187	16,799	198,438	123,914	50,504	167,460	46,843	1,157,275	4.0%	27.9
2002/03	211,675	76,973	276,081	35,249	17,645	213,850	140,889	52,589	187,123	50,060	1,262,133	9.1%	27.8
2003/04	246,013	129,997	339,753	57,051	20,762	256,431	157,908	61,240	208,436	54,181	1,531,772	21.4%	29.1
2004/05	265,177	119,604	424,339	53,936	27,564	312,618	175,387	90,048	242,314	61,285	1,772,271	15.7%	28.9
2005/06	312,400	141,654	497,525	42,680	39,842	329,006	216,870	98,985	276,927	56,374	2,012,263	13.5%	27.7
2006/07	363,951	161,868	569,647	42,619	45,657	365,944	244,033	136,693	322,833	60,238	2,313,484	15.0%	27.8
2007/08	447,940	192,744	715,932	38,072	48,507	449,105	281,391	189,012	386,876	66,761	2,816,340	21.7%	28.1
2008/09	574,048	225,977	751,293	73,539	55,109	507,659	384,919	199,288	499,617	83,417	3,354,867	19.1%	27.4
2009/10	648,971	236,002	902,377	96,658	65,960	586,047	445,728	185,925	590,993	96,425	3,855,087	14.9%	27.1
2010/11	791,565	257,901	1,160,493	87,917	64,471	730,416	512,560	183,792	735,937	112,032	4,637,084	20.3%	26.8
K.P.													
1999/00	75,759	1,031	54,859	29,190	14,612	51,050	65,895	14,689	83,615	14,902	405,601		11.4
2000/01	76,291	1,690	58,518	25,281	14,945	56,290	88,619	12,878	92,969	16,782	444,263	9.5%	11.3
2001/02	83,509	1,666	62,912	25,480	14,234	60,681	98,512	15,517	105,901	17,065	485,476	9.3%	11.7
2002/03	84,793	2,569	61,369	23,515	16,542	63,036	109,958	15,831	110,112	18,237	505,961	4.2%	11.2
2003/04	78,807	3,398	75,206	37,184	19,417	64,562	120,986	18,062	115,160	19,738	552,519	9.2%	10.5
2004/05	98,981	3,588	105,502	35,037	25,777	81,957	136,128	25,714	124,620	22,326	659,629	19.4%	10.8
2005/06	119,060	7,850	132,687	27,639	33,369	92,603	157,679	59,903	165,923	24,712	821,423	24.5%	11.3
2006/07	134,532	14,725	150,097	29,655	38,129	98,501	165,189	72,021	192,405	26,327	921,582	12.2%	11.1
2007/08	145,097	19,989	185,162	24,361	40,388	111,290	176,638	87,746	229,360	29,082	1,049,114	13.8%	10.5
2008/09	187,302	21,726	201,200	45,949	45,935	132,546	237,731	87,560	294,197	36,548	1,290,693	23.0%	10.5
2009/10	216,107	35,806	241,565	58,443	51,547	159,875	270,738	76,485	345,637	42,490	1,498,692	16.1%	10.5
2010/11	272,058	59,809	300,206	59,046	63,396	212,127	306,055	69,777	427,458	49,649	1,819,582	21.4%	10.5
BALOCHISTAN													
1999/00	104,406	27,750	22,770	12,832	4,431	47,705	28,249	1,759	48,576	5,539	304,016		8.5
2000/01	116,722	35,827	26,170	15,405	5,175	56,453	35,493	2,213	52,557	6,238	352,253	15.9%	9.0
2001/02	129,682	35,869	32,599	12,041	5,540	63,092	36,862	3,826	57,619	6,343	383,474	8.9%	9.2
2002/03	161,068	38,042	26,067	9,783	5,466	78,703	42,257	3,233	60,330	6,779	431,729	12.6%	9.5
2003/04	187,024	48,861	37,417	14,496	6,036	93,267	47,753	3,055	66,481	7,337	511,728	18.5%	9.7
2004/05	177,154	37,476	76,400	15,263	8,013	99,014	55,121	3,634	75,864	8,299	556,238	8.7%	9.1
2005/06	185,206	42,520	99,428	13,230	6,401	111,423	37,804	8,418	57,184	4,676	566,289	1.8%	7.8
2006/07	216,435	46,230	113,016	17,434	8,276	126,823	56,316	8,382	69,565	5,693	668,170	18.0%	8.0
2007/08	269,380	53,404	140,342	15,226	9,829	168,590	80,515	8,001	86,810	7,153	839,250	25.6%	8.4
2008/09	334,941	59,308	149,909	33,012	10,832	194,348	111,283	8,876	106,271	9,733	1,018,512	21.4%	8.3
2009/10	386,922	58,635	183,328	43,229	12,420	226,550	130,201	8,742	118,804	12,171	1,181,001	16.0%	8.3
2010/11	443,895	66,424	238,506	38,761	12,113	276,858	151,275	9,159	139,345	15,211	1,391,547	17.8%	8.0

Table 3: Annual Growth in Gross Provincial Value Added at constant factor cost

<i>Annual percentage growth</i>											
Pakistan	Agriculture, Fishing & Forestry	Mining and Quarrying	Manufacturing	Electricity, Gas, Water	Construction	Whole Sale and related trade	Transport and Storage	Finance, Real Estate etc.	Community, Social, Personal Srv.	Ownership of Dwellings	TOTAL
1999/00											
2000/01	-2.18	5.52	9.29	-13.72	0.53	4.50	5.29	-15.10	4.20	3.77	1.97
2001/02	0.10	5.73	4.46	-7.00	1.59	2.95	1.21	17.17	7.49	3.50	3.14
2002/03	4.15	6.62	6.90	-11.69	3.98	6.20	4.27	-1.28	6.81	3.26	4.76
2003/04	2.43	15.61	14.01	56.75	-10.75	8.65	3.53	8.98	4.51	3.51	7.54
2004/05	6.48	10.00	15.51	-5.72	18.56	12.43	3.45	30.85	4.21	3.51	9.04
2005/06	6.30	4.62	8.65	-26.55	10.19	4.53	3.96	42.89	9.94	3.51	7.10
2006/07	4.11	3.09	8.25	4.24	24.35	4.83	4.72	14.89	7.61	3.51	6.61
2007/08	1.04	4.38	4.84	-23.27	-5.54	4.51	3.81	11.12	6.51	3.51	3.57
2008/09	4.02	-0.51	-3.60	59.02	-11.17	-1.38	3.60	-7.56	6.96	3.51	1.69
2009/10	0.58	2.21	5.55	17.65	28.44	4.63	2.76	-11.27	5.97	3.51	3.78
2010/11	1.21	0.42	2.96	-21.11	0.82	3.75	1.27	-6.26	9.17	1.79	2.39
PUNJAB											
1999/00											
2000/01	-2.82	3.39	8.23	-5.58	0.06	3.51	5.18	-14.25	4.23	3.77	1.56
2001/02	-0.62	5.80	5.65	-7.69	1.17	2.63	1.04	18.01	7.57	3.50	2.88
2002/03	2.71	1.19	8.27	-11.20	2.48	5.30	3.70	-2.01	7.79	3.26	4.40
2003/04	0.94	1.77	14.95	56.19	-11.79	7.01	2.95	8.07	5.17	3.51	6.23
2004/05	12.16	3.38	16.82	-2.75	18.56	14.99	3.62	29.04	4.57	3.51	11.25
2005/06	5.64	12.14	9.21	-24.61	2.40	15.23	9.72	56.22	14.84	24.82	11.54
2006/07	4.31	-3.64	8.62	7.29	31.89	6.16	3.57	9.33	6.86	6.71	6.70
2007/08	-0.92	3.96	3.97	-23.41	-0.83	5.90	2.66	5.48	5.75	6.61	2.88
2008/09	4.10	-3.44	-3.11	57.52	-11.17	-1.11	4.32	-0.80	7.80	2.94	2.35
2009/10	0.31	-1.27	6.35	16.67	30.65	4.98	3.47	-5.23	6.80	2.93	4.47
2010/11	1.77	1.09	3.13	-25.97	3.33	4.20	1.97	-0.28	10.02	1.22	3.19
SINDH											
1999/00											
2000/01	-4.97	6.69	12.40	-25.65	5.68	4.97	2.41	-17.32	2.98	3.77	1.58
2001/02	-4.98	12.46	0.93	3.50	6.01	0.49	-1.62	13.80	6.33	3.50	1.50
2002/03	1.19	13.11	4.50	-11.47	3.06	4.79	5.51	0.98	9.48	3.26	4.46
2003/04	9.06	28.47	12.56	60.37	-8.27	13.89	4.75	11.37	6.02	3.51	11.75
2004/05	1.28	15.79	13.70	-9.22	18.56	11.96	2.18	34.56	6.38	3.51	9.00
2005/06	11.18	2.68	4.87	-29.02	35.76	-10.99	7.51	1.86	6.20	-14.76	1.65
2006/07	4.20	2.47	8.49	-5.43	13.80	3.03	5.75	29.23	8.11	-0.85	6.81
2007/08	4.88	4.12	5.03	-20.70	-13.18	1.81	4.83	23.46	6.99	-1.04	4.90
2008/09	4.09	1.51	-4.93	57.72	-10.93	-3.05	3.15	-12.70	6.97	3.46	0.27
2009/10	0.13	-0.40	5.23	19.76	28.64	3.07	2.31	-16.50	5.97	3.46	2.73
2010/11	0.30	-5.68	2.99	-19.36	-12.45	2.37	0.83	-12.13	9.18	1.74	1.09
K.P.											
1999/00											
2000/01	-3.44	31.84	1.59	-21.61	-5.09	3.52	10.68	-15.73	6.49	3.77	1.00
2001/02	7.12	-5.20	5.64	-7.15	-3.78	6.34	6.32	15.98	10.02	3.50	6.23
2002/03	-2.74	40.34	6.04	-9.18	14.03	1.01	3.58	-1.06	1.87	3.26	1.70
2003/04	-13.76	0.62	11.19	56.69	-8.49	-2.73	2.84	9.11	-0.43	3.51	1.88
2004/05	17.13	32.86	10.41	-9.52	18.56	16.58	3.51	30.28	-1.03	3.51	7.79
2005/06	12.69	89.71	13.82	-29.24	21.59	-4.44	0.71	115.85	23.76	2.56	12.97
2006/07	1.57	68.22	6.45	1.62	13.47	-1.47	-1.54	12.51	7.54	-1.15	4.61
2007/08	-7.27	18.70	7.50	-27.08	-13.44	-6.27	-2.79	8.78	6.43	-1.37	-0.01
2008/09	4.64	-5.89	-1.12	54.01	-10.83	2.14	1.49	-17.37	6.24	4.06	1.80
2009/10	2.02	57.18	3.57	15.90	20.60	7.69	0.62	-21.82	5.25	4.05	3.63
2010/11	5.68	44.18	1.55	-10.43	10.16	8.98	-0.88	-18.90	8.43	2.32	3.95
BALUCHISTAN											
1999/00											
2000/01	7.57	3.81	11.02	8.67	8.38	11.10	3.41	20.93	3.63	3.77	7.09
2001/02	7.77	-3.72	21.75	-27.99	8.16	10.25	-0.67	66.44	5.89	3.50	5.98
2002/03	19.31	-3.50	14.51	-20.04	-3.20	21.29	6.38	-18.05	2.59	3.26	11.57
2003/04	7.87	-2.30	21.13	46.83	-13.91	12.55	5.62	-9.63	4.93	3.51	8.97
2004/05	-10.78	-3.47	24.86	1.10	18.56	-2.50	6.19	8.85	4.35	3.51	-0.76
2005/06	-1.68	-1.63	19.16	-22.25	-24.97	-4.83	-40.37	114.62	-29.94	-47.80	-7.69
2006/07	4.68	-2.50	7.04	24.80	28.40	5.44	40.00	-6.83	12.81	12.98	8.15
2007/08	8.79	1.01	6.28	-22.47	-2.95	10.28	29.98	-14.77	11.42	12.19	8.68
2008/09	3.21	-3.84	-3.45	77.04	-13.60	-1.13	4.23	-8.14	1.40	12.66	2.07
2009/10	1.70	-5.71	4.50	19.32	23.23	4.08	3.38	-11.84	0.15	11.92	2.93
2010/11	-2.03	-2.22	3.56	-20.51	-12.64	0.37	1.88	-6.87	2.84	9.44	-0.61

Table B.9: Annual Shares of Gross Provincial Value Added to National Value Added @ current Prices

<i>Share of National GDP</i>											
Pakistan	Agriculture, Fishing & Forestry	Mining and Quarrying	Manufacturing	Electricity, Gas, Water	Construction	Whole Sale and related trade	Transport and Storage	Finance, Real Estate etc.	Community, Social, Personal Srv.	Ownership of Dwellings	TOTAL
1999/00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2000/01	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2001/02	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2002/03	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2003/04	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2004/05	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2005/06	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2006/07	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2007/08	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2008/09	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2009/10	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2010/11	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PUNJAB											
1999/00	58.2	15.3	45.9	39.5	62.1	56.0	52.4	50.1	49.5	44.4	51.7
2000/01	57.9	15.0	45.3	43.2	61.8	55.5	52.3	50.6	49.5	44.4	51.3
2001/02	57.3	15.0	46.0	42.9	61.6	55.3	52.2	51.0	49.5	44.4	51.1
2002/03	56.8	14.2	49.9	43.1	60.7	54.8	51.9	50.6	50.0	44.4	51.5
2003/04	56.1	12.5	49.9	43.0	60.0	54.0	51.7	50.2	50.3	44.4	50.6
2004/05	58.8	11.7	46.7	44.3	60.0	55.2	51.7	49.5	50.5	44.4	51.3
2005/06	57.7	12.6	46.8	45.5	55.7	60.9	54.6	54.1	52.7	53.6	53.2
2006/07	57.6	11.8	46.9	46.8	59.1	61.7	54.0	51.5	52.4	55.3	53.2
2007/08	57.2	11.7	46.6	46.8	62.1	62.5	53.4	48.8	52.0	56.9	53.1
2008/09	58.0	11.4	46.7	46.3	62.1	62.6	53.8	52.4	52.4	56.6	53.7
2009/10	58.0	11.0	46.6	45.9	63.1	62.9	54.2	56.0	52.8	56.3	54.0
2010/11	59.2	11.1	46.4	43.1	64.7	63.1	54.5	59.6	53.2	56.0	54.6
SINDH											
1999/00	22.3	49.2	39.2	30.4	16.1	28.1	24.1	37.5	26.1	37.0	28.4
2000/01	21.7	49.8	40.8	26.2	16.9	28.2	23.5	36.5	25.8	37.0	28.4
2001/02	20.7	52.9	39.2	29.2	17.6	27.5	22.8	35.5	25.5	37.0	27.9
2002/03	20.0	56.2	38.1	29.2	17.5	27.2	23.1	36.3	26.2	37.0	27.8
2003/04	21.1	62.4	37.6	29.9	18.0	28.5	23.4	37.1	26.5	37.0	29.1
2004/05	20.2	65.7	37.3	28.8	18.0	28.4	23.1	38.1	27.1	37.0	28.9
2005/06	21.4	64.5	36.3	27.8	22.1	24.1	23.9	27.2	26.2	30.5	27.7
2006/07	21.6	64.1	36.3	25.3	20.3	23.7	24.1	30.6	26.3	29.2	27.8
2007/08	22.2	63.9	36.7	26.1	18.6	23.1	24.3	34.0	26.4	27.9	28.1
2008/09	22.0	65.2	36.3	25.9	18.7	22.7	24.2	32.1	26.4	27.9	27.4
2009/10	21.8	63.6	36.3	26.3	18.7	22.4	24.1	30.2	26.4	27.9	27.1
2010/11	21.4	59.7	36.6	26.9	16.2	22.1	24.0	28.3	26.4	27.9	26.8
K.P.											
1999/00	8.2	1.3	10.5	20.9	16.7	8.2	16.4	11.1	15.4	13.5	11.4
2000/01	8.1	1.6	9.6	19.0	15.8	8.1	17.3	11.0	15.8	13.5	11.3
2001/02	8.6	1.4	9.8	19.0	15.0	8.4	18.1	10.9	16.1	13.5	11.7
2002/03	8.0	1.9	8.5	19.5	16.4	8.0	18.0	10.9	15.4	13.5	11.2
2003/04	6.8	1.6	8.3	19.5	16.8	7.2	17.9	10.9	14.7	13.5	10.5
2004/05	7.5	2.0	9.3	18.7	16.8	7.4	17.9	10.9	13.9	13.5	10.8
2005/06	8.2	3.6	9.7	18.0	18.5	6.8	17.4	16.4	15.7	13.4	11.3
2006/07	8.0	5.8	9.6	17.6	16.9	6.4	16.3	16.1	15.7	12.8	11.1
2007/08	7.2	6.6	9.5	16.7	15.5	5.7	15.3	15.8	15.7	12.2	10.5
2008/09	7.2	6.3	9.7	16.2	15.6	5.9	15.0	14.1	15.6	12.2	10.5
2009/10	7.3	9.6	9.7	15.9	14.6	6.1	14.7	12.4	15.4	12.3	10.5
2010/11	7.4	13.8	9.5	18.1	16.0	6.4	14.3	10.7	15.3	12.4	10.5
BALUCHISTAN											
1999/00	11.3	34.2	4.4	9.2	5.1	7.7	7.0	1.3	9.0	5.0	8.5
2000/01	12.3	33.7	4.3	11.6	5.5	8.2	6.9	1.9	8.9	5.0	9.0
2001/02	13.4	30.7	5.1	9.0	5.8	8.8	6.8	2.7	8.8	5.0	9.2
2002/03	15.2	27.8	3.6	8.1	5.4	10.0	6.9	2.2	8.4	5.0	9.5
2003/04	16.1	23.5	4.1	7.6	5.2	10.4	7.1	1.8	8.5	5.0	9.7
2004/05	13.5	20.6	6.7	8.2	5.2	9.0	7.3	1.5	8.5	5.0	9.1
2005/06	12.7	19.4	7.3	8.6	3.6	8.2	4.2	2.3	5.4	2.5	7.8
2006/07	12.8	18.3	7.2	10.3	3.7	8.2	5.6	1.9	5.7	2.8	8.0
2007/08	13.4	17.7	7.2	10.4	3.8	8.7	7.0	1.4	5.9	3.0	8.4
2008/09	12.8	17.1	7.2	11.6	3.7	8.7	7.0	1.4	5.6	3.3	8.3
2009/10	13.0	15.8	7.4	11.8	3.5	8.7	7.1	1.4	5.3	3.5	8.3
2010/11	12.0	15.4	7.5	11.9	3.1	8.4	7.1	1.4	5.0	3.8	8.0