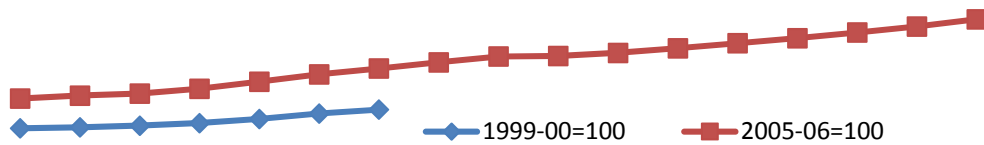
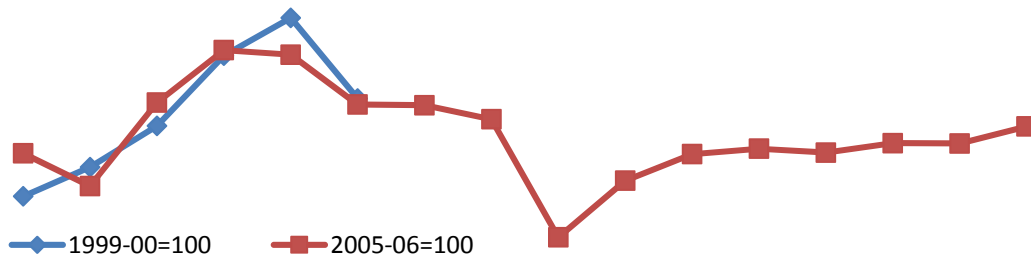
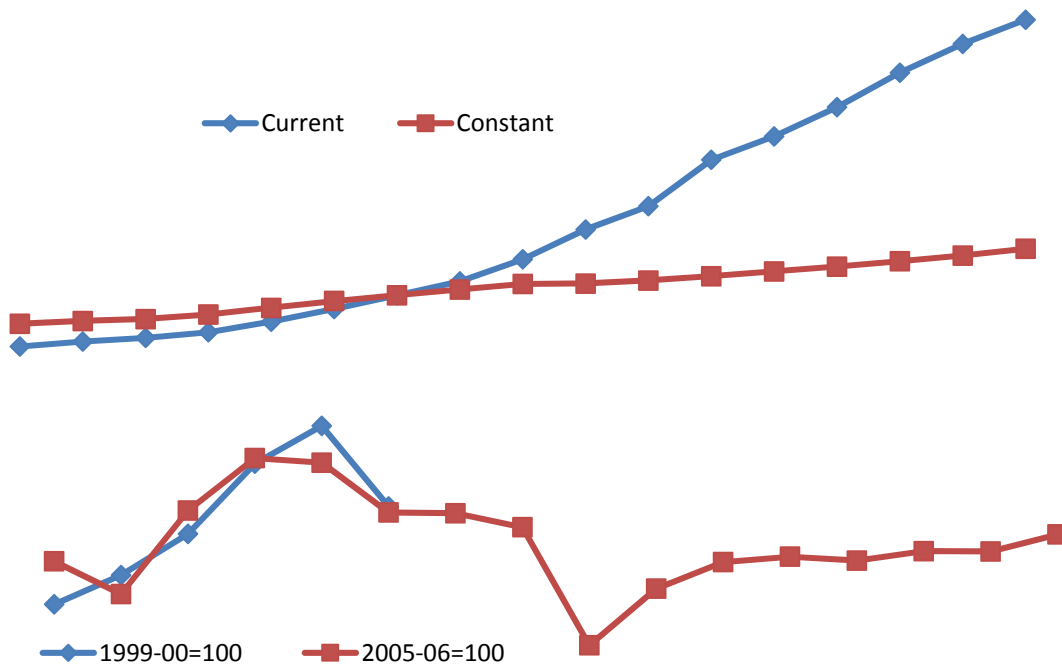




National Accounts of Pakistan

Backward Revisions for the years 1999-2000 to 2004-05 on base year 2005-06



JANUARY, 2017
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Foreword

Pakistan Bureau of Statistics (PBS) completed change of base of national accounts from 1999-2000 to 2005-06 in April, 2013. PBS compile and publish number of macroeconomic aggregates such as Gross Domestic Product (GDP), Gross National Income (GNI), Per Capita Income, Gross Fixed Capital Formation (GFCF) and Expenditure on GDP every year. The current series of GDP and GFCF at constant and current prices by industrial origin is comprised of the period from 2005-06 to 2015-16 with 2005-06 as the base year. However, there is consistent and growing demand for a longer time series on common base year by policy makers, planners, academicians and researchers as well as international agencies like IMF etc.

In order to meet the requirements of both domestic and international data users, PBS has initiated work on compilation of new series of national accounts on 2005-06 base while incorporating the concepts of 2008 SNA. The current document shed light on the compilation of new series of National Accounts of Pakistan for the period of 1999-2000 to 2004-05. The effort has been made to put in all the details of compilation of value added and GFCF at current and constant prices for all the industries along with description of sources of data. The notable methodological differences between value added estimates of 1999-2000 base and 2005-06 have also been highlighted. Further, actual numbers of value added and GFCF estimates at current and constant prices of both the bases along with growth rates for each industry are also given in order to facilitate the comparison.

The task of compilation of backward series of National Accounts at current and constant prices for the period of 1999-2000 to 2004-05 has been completed by the team of national accountants led by Mr. Arif Mahmood Cheema, Member (National Accounts). I hope this series will be useful for various government departments, research organizations, independent researchers and educational institutions. Suggestions for the improvement are warmly welcomed.

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Preface

The backward series of National Accounts of Pakistan at current and constant prices for the period of 1999-2000 to 2004-05 has been another achievement by National Accounts Wing of Pakistan Bureau of Statistics. National Accounts Wing is responsible of compilation of variety macroeconomic statistics including GDP, per capita income and gross capital formation etc. These estimates are compiled following the international recommendations like System of National Accounts (SNA) 2008, International Standard Industrial Classifications (ISIC) Rev.4, Central Product Classification (CPC) version 2, Classification of the Functions of the Government (COFOG) etc. The current series of national accounts is available from 2005-06 to 2015-16 (Provisional) while implementing the results of rebasing for the year 2005-06. National Accounts Wing started work on the compilation of backward series of national accounts in order to meet the demand of researchers, academicians, planners and international agencies for a longer time series on harmonized concepts and methodologies.

The current publication incorporates the detail of compilation of gross value added (GVA) and GFCF estimates at current and constant prices at detailed industrial levels for the years 1999-2000 to 2004-05 on the methodology adopted during the change of base of national accounts from 1999-2000 to 2005-06. All the details have been documented in order to facilitate the enhancement of understanding of the macroeconomic aggregates of Pakistan. This document provides overall methodological review of the compilation of the backward series of national accounts of Pakistan. I hope this document will be useful for the user of the national accounts statistics.

The exercise for the revision of national accounts took a long time and completion of this task is result of lot of dedicated efforts from the team of national accountants. It is a fact that it was not possible without team work. I appreciate the hard work of the team. Mr. Liaqat CSO, shouldered the task zealously and coordinated with the NA team for digging out the old memories. It was a difficult job which need special aptitude. I congratulate all the staff of National Accounts Wing for their determined efforts to complete this task. I would also like to express my sincere gratitude to Mr. Michael Andrews, Senior Economist, International Monetary Fund (IMF) for thoroughly reviewing the documents and providing useful comments, which has improved the quality of the publication.

Continuous support of Mr. Asif Bajwa, Chief Statistician, Pakistan Bureau of Statistics has enabled us to come up with such a valuable document. His encouragement has always been a source of inspiration for the staff of National Accounts Wing. Suggestions for the improvement are welcome.

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(January 4, 2017)

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List of abbreviations and acronyms

ACO	Agriculture Census Organization
CAA	Civil Aviation Authority
CIF	Cost, Insurance and Freight
CMI	Census of Manufacturing Industries
CNG	Compressed Natural Gas
CPI	Consumer Price Index
COFOG	Classification of the Functions of the Government
DFI's	Development Finance Institutions
FDPI	Foreign Direct Private Investment
FISIM	Financial Intermediation Services Indirectly Measured
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GNI	Gross National Income
GVA	Gross Value Added
IC	Intermediate Consumption
IPP	Intellectual Property Product
IPP's	Independent Power Producers
ISIC	International Standard Industrial Classification
KESC	Karachi Electric Supply Company
KIBOR	Karachi Inter Bank Offer Rates
LPG	Liquefied petroleum gas
LSMI	Large Scale Manufacturing Industries
M&Q	Mining & Quarrying
NGOs	Non-Governmental Organizations
NLC	National Logistics Cell
NNI	Net National Income
NPISH	Non-Profit Institutions Serving Households
OGDCL	Oil and Gas Development Company Limited
PA&D	Public Admin & Defense
PASHA	Pakistan Software Houses Association
PBS	Pakistan Bureau of Statistics
PIA	Pakistan International Airlines
PPI	Producer's Price Index
PPL	Pakistan Petroleum Limited
PRACS	Pakistan Railway Advisory & Consultancy Services Limited
PSIC	Pakistan Standard Industrial Classification
QIM	Quantum Index of Manufacturing
SHMI	Small and Household Manufacturing Industries Survey
SNA	System of National Accounts
SSMI	Small Scale Manufacturing Industries
TVA	Trade Value Added
WAPDA	Water and Power Development Authority
WPI	Wholesale Price Index
WRT	Wholesale and Retail Trade

CHAPTER 1

Overview

1. Introduction

Pakistan Bureau of Statistics (PBS) changed the base of National Accounts from 1999-2000 to 2005-06 in April, 2013 incorporating the concepts of System of National Accounts (SNA) 2008. The main macro-economic aggregates such as Gross Value Added (GVA), Gross Domestic Product (GDP), Gross National Income (GNI), Net National Income (NNI), GNI per capita and Expenditure on GDP have been compiled and released from 2005-06 to 2015-16. Keeping in view, requirement of academicians, researchers and policy makers, PBS has initiated work on the generation of backward series of macro-economic aggregates to produce a longer time series. It is the documentation of backward series of GVA of the base 1999-2000 from 2005-2006 to 1999-2000, based on the change of base 2005-06.

2. Why Data Revisions?

Data produced by statistical agencies are often subject to a revision process which can be viewed either as routine revisions or occasional revisions. In each case, the main purpose is to achieve better quality of the published data. While the former are regularly made to incorporate the new available information in order to improve the quality of the statistics, the latter occur at irregular intervals depending on major accounting events.

Occasional revisions are produced at longer and infrequent intervals. The nature of such revisions may be statistical, which results from changes in surveys or in estimation procedures, or conceptual, which results from changes in concepts, definitions or classifications. The effect of an occasional revision increases according to the interval that occurs between two successive revisions.

From a conceptual point of view, the need of occasional revisions arises because of any one or a combination of following reasons:-

- Changes due to new surveys
- Changes due to modifications in definitions or interpretations of the System of National Accounts (SNA)
- Introduction of new calculation methods
- Important economic events that have a significant impact on the national accounting system.

These occasional revisions ask for a deep analysis of the impact they have on the national accounting system and of the strategy that accounts should follow to implement them. The main effect of these revisions is to affect all national accounts. Time series associated to the national accounts aggregates have to be revised according to the new changes.

The need for series of economic data that are homogeneous and at the same time cover the longest possible time span is strongly felt by national accountants, statisticians, econometricians and economic analysts (Fonzo, 2003). The reconstruction of the national accounts time series is associated to a revision process usually referred as *backward calculation* (Panaretos), *backward projection* (Escosura, 2014) or *retropolation* (Escosura, 2014, Panaretos,). Retropolation of national accounting data is necessary after a revision of the national accounts has taken place (Panaretos).

3 An Overview of Backward Calculation Techniques

The methods for backward calculation of national accounts data can be distinguished as “i. Annual backward calculations and ii. Benchmark years and interpolation”.

In both methods several variants are possible and also a combination of both methods is thinkable. For example in the Netherlands case a number of variants of the first class of methods were used in the past. Until now, the second class was not used except from the revision of the national accounting data in the interwar period. The former class of methods is well known in National Statistical Institutes and methods belonging to them are currently used to revise time series. The latter has not been intensively applied till now to revise national accounts series.

3.1. Annual Backward Calculations

Annual backward calculation is based on the principle that the retropolated figures are calculated year by year back in time. Several methods can be used to obtain such results. The differences among them depend more or less on accuracy, and consequently time used in carrying out the revision process and more or less on the intensive use of statistical techniques. The well-known methods belonging to the backward calculation class are the following:

a) Full Revision Method

The full revision method is a very complete one. Figures to be revised, covering all the years in the backward calculation period, are estimated by applying the same principles that underlie the revision. This means that in the case of the application of 2008 SNA, past years are estimated according to the new rules, concepts and definitions. This procedure, due to its detailed level of analysis, asks for the existence of a very good system of basic statistics suitable to be re-used according to the new classifications and revisions. Clearly, this method is time consuming, requires much resources and difficult to apply.

b) Revision by Superposition of Corrections

Time series figures concerning the years of the backward calculation period are determined by superposing corrections on the figures before revision. Starting point is the consistent data set of national accounts which was compiled in the past. Corrections resulting from the revision process are added to this basic set. The revision process involves all the past years. Two cases can be distinguished when applying this method: The former corresponds to a superposition of a set of corrections already calibrated on the complete accounting context; the

latter implies the revision of the concerned item, the extension of the revision of the concerned items to all periods and the consolidation of all accounts.

c) Simple Proportional Method

The simple proportional method is a simplified version of the annual backward calculation method. The revision year is expressed both under the new and the old accounting system rules. Then in order to reconstruct the past revised values of the series, a simple proportional rule is applied to the old time series values. The simple proportional method offers an easy technique to carry out backward calculation, especially in a first attempt to determine the new path of the involved time series. Clearly, it is an approximate solution that does not analyze in a very deep way the revision effects on time-series but on the contrary is a low resource and less time consuming approach to the backward calculation.

d) Growth Rates Method/ Retropolation

Starting from the balanced set of national accounts figures for the revision year, time-series figures for the past are determined by applying backwards the growth rates associated to the time series before revision. Obviously, if revised growth rates for a certain variable are available, they are used. The revision process works at the level of detail chosen. Afterwards, the figures are balanced again in the framework of a consistent national accounts system.

Underlying this procedure is the implicit assumption of an error level in the old benchmark's series whose relative size is constant over time. In other words, no error is assumed to exist in the old series' rates of variation that are, hence, retained in the spliced series (Moreno, 2014 cited in Escosura, 2014). Official national accountants have favored this procedure of linking national accounts series on the grounds that it preserves the earlier benchmark's rates of variation. It is worth noting that the retropolation approach produces a hybrid result in which levels computed at a given set of relative prices are projected backwards with growth rates obtained from an earlier set of relative prices (Escosura, 2014).

3.2. Benchmark Years and Interpolation

The second group of basic methods for backward calculation of national accounts is based on a two-step procedure. In the first step detailed estimates for one or more benchmark years are calculated. In the second step, figures for the remaining years are determined by interpolation. The benchmark years and interpolation method can be applied in different ways i.e. the full benchmark year method and the layer correction method.

The revision year is that one for which the new definitions and accounting rules are used for first time. The new figures for that year are determined at a very detailed level using the new accounting rules. Revision years and benchmark years are strongly connected. Actually the revision year is an outstanding example of a benchmark year and is the starting point for the backward calculation of the data. It is obvious that the benchmark years are crucial points in the time series and they should include as much information as possible. That's why benchmark years are usually years in which population, agricultural or industrial censuses are conducted.

Furthermore the economic situation is of great importance for the choice of the benchmark years. The corrections which are carried out for the revision year have to be determined for the other benchmark years as well. After a number of revisions have been carried out in due time for all benchmark years, strata of corrections matrices are available (one for each revision).

a) Full Benchmark Year Method and Interpolation

In the full benchmark year method, figures for the benchmark years are estimated in a detailed way, using new definitions, classifications and sources. After the revision corrections for the benchmark years have been determined, the corrections for the intermediate years are calculated by interpolation.

According to Panaretos, benchmark year's interpolation method has a number of advantages which are as under:

- The method is transparent and relatively fast
- The revision corrections are determined explicitly
- Decisions taken in the past in the balancing of the data are upheld
- In the case of new revision, only the revision corrections for the benchmark year have to be determined

Contrary to the retropolation approach, the interpolation procedure assumes that the error is generated between the two periods. Consequently, it modifies the annual rate of variation between benchmarks (usually upwards) while keeps unaltered the initial level—that of the old benchmark. As a result, the initial level will be probably lower than the one derived from the retropolation approach (Escosura, 2014).

b) Layer Correction and Interpolation

Figures for the benchmark years are determined starting from the original, balanced data set. Corrections, resulting from revisions, are balanced and then superposed to the basic set of original data. In this way, layers of correction matrices become available (one for each revision). Corrections for the intermediate years are determined by means of interpolation of the correction matrices. Afterwards, figures for the years between the benchmark years are determined by integrating the original data and the corrections.

According to this method, corrections are determined for all years in the period to be revised. However, not all years are treated in the same way. Especially in estimating the revision corrections the difference between benchmark years and other years is evident. The figures for the benchmark years are estimated with the help of detailed information. The figures for the other years are estimated more roughly.

CHAPTER 2

Backward Series of Gross Value Added (GVA) at Constant Prices

In this series, different variations of the annual backward calculations have been applied, varying from the growth rates to fresh estimations, as detailed below. The calculations are at the most detailed level appropriate; the descriptions here are at the summarized level. The industry-wise methodology adopted for the backward calculations of GVA and GDP at constant prices is described in the following paragraphs:-

A: AGRICULTURE

Agriculture is comprised of four sub-sectors namely crops, livestock, forestry and fishing. The methodology used to derive the back-ward series of GVA at constant basic prices for the years 2005-06 to 1999-2000 is outlined in the following paragraphs.

A-I: Crops

In the 1999-2000 base estimates, the crops sub-sector was used to be divided into two groups called major crops and minor crops. While major crops were comprised of 12 crops namely Wheat, Maize, Rice, Sugarcane, Cotton, Gram, Barley, Bajra, Jowar, Sesamum, Rape seed & mustard and Tobacco and the remaining ones were used to be grouped together to form another group termed as minor crops.

The GVA estimates of crops, after change of base from 1999-2000 to 2005-06, are divided into three sub-groups called i) important crops, ii) other crops and iii) cotton ginning and miscellaneous. The sub-group known as important crops is comprised of Wheat, Maize, Rice, Sugarcane and Cotton while all other crops are included in the sub-group called minor crops. An important distinction between old and new base estimates was the inclusion of cotton ginning in crops sub-sector which was previously covered in large scale manufacturing. This regrouping of activities was inevitable after the adoption of Pakistan Standard Industrial Classification (PSIC) 2010 which was based on International Standard Industrial Classification (ISIC) Revision-4 released by United Nations in 2008. Own account capital formation in agriculture is new addition in 2005-06 base and grouped with cotton ginning. It also has been adjusted in the backward series.

In order to extract the back-ward series of GVA estimates of crops from 2005-06 to 1999-00, a slight adjustment in crop group of the old base series has been made. The crop-wise information on output for the time period in question was available with PBS and same is used in the derivation of back-ward series. The output of those 7 crops not making part of important crops in new base estimates has been deducted from the total output of 12 major crops of 1999-2000 base. Information on inputs at aggregate level was available in the PBS but not at crop level for all the crops. Crop-wise information was available for some inputs like seeds and ploughing & plunking, which are valued according to the area under cultivation of each crop. Like outputs, value of inputs was also derived separately for important and other crops. The crop-wise information was used to estimate value of inputs such as seeds and ploughing & plunking for

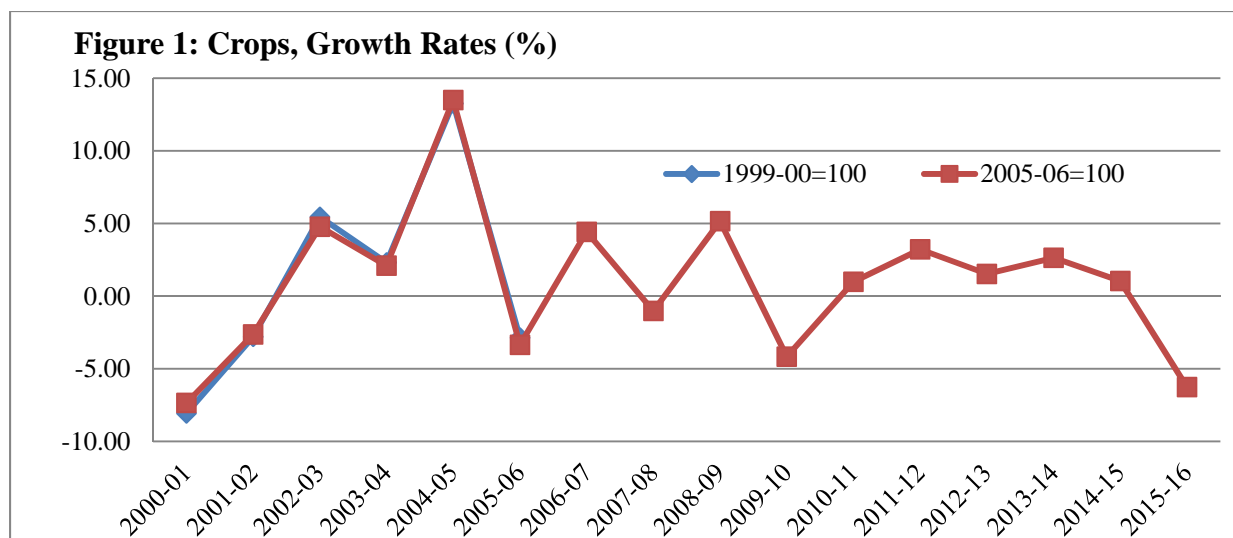
important and other crops. Whereas the remaining inputs such as fertilizers, pesticides and water were bifurcated between important and other crops by applying the fixed proportions of these crops in the base year after deducting the sum of value of inputs like seeds and ploughing & plunking.

The aforementioned information on output and inputs was used to derive the GVA of important and other crops on 1999-2000 base from 1999-2000 to 2005-06 and the growth rates thus derived were then applied to figures of GVA of important crops and other crops at constant basic prices of 2005-06 to have the back series of both groups of crops for the years 2004-05 to 1999-2000. Further, two more groups i.e. cotton ginning and own account capital formation (Misce. GVA) are also added in new base which were not part of old base series. The GVA of cotton ginning for the year 2005-06 at new base, was extrapolated backward by using the growth of cotton production whereas GVA of other small components known as miscellaneous GVA, was extrapolated back-ward by a fixed growth rate of 0.8%. The GVA of miscellaneous components is also included in cotton ginning. The GVA of these three groups i.e. important crops, other crops and cotton ginning is then added up to find the total of backward series of crops sub-sector. Comparison of GVA / growth rates of crops for 1999-2000 base and 2005-06 base is given in table 1 and figure 1 below:-

Year	Constant GVA 1999-2000 base						Constant GVA 2005-2006 base							
	Major Crops	GR	Minor Crops	GR	Total (Crops)	GR	Imp. Crops	GR	Other Crops	GR	Cotton Ginning	GR	Total Crops	GR
1999-00	342200		125679		467879		413529		261177		53438		728144	
2000-01	308474	-9.86	121673	-3.19	430147	-8.06	375550	-9.18	247347	-5.30	51715	-3.22	674612	-7.35
2001-02	300911	-2.45	117217	-3.66	418128	-2.79	365420	-2.70	240032	-2.96	51392	-0.62	656844	-2.63
2002-03	321505	6.84	119446	1.90	440951	5.46	385035	5.37	253146	5.46	50052	-2.61	688233	4.78
2003-04	327057	1.73	124121	3.91	451178	2.32	392617	1.97	260470	2.89	49583	-0.94	702670	2.10
2004-05	385058	17.73	125993	1.51	511051	13.27	462326	17.75	270391	3.81	64841	30.77	797558	13.50
2005-06	370005	-3.91	126457	0.37	496462	-2.85	452759	-2.07	257597	-4.73	60472	-6.74	770828	-3.35

GR stands for Growth Rates

The growth rates of major crops in the 1999-2000 base are roughly comparable with those of important crops in 2005-06 base but notable differences exist in the growth rates of minor crops in 1999-2000 base and other crops in 2005-06 base (Table 1). The year-to-year variation in the production of grams, which was part of major crops in 1999-2000 base but is now covered under other crops in 2005-06 base, is the major contributory factor behind generating these differences.



A-II: Livestock

Livestock estimates are based on livestock population, poultry & poultry products. The data on livestock is based on livestock census conducted after every 10 years by Agriculture Census Organization wing (ACO) and geometric growth rates between two consecutive censuses are utilized for annual projection until the next census. For bench mark estimates of 1999-00, annual livestock population has been projected by using inter-census growth of 1985-86 and 1995-96. Estimates up to 2004-05 were based on projected series of livestock population whereas in 2005-06 new livestock census was conducted. So estimates of 2005-06 (1999-00 base) were prepared using 2005-06 census data but the previous series was not updated in the light of new data. Therefore, whole series from 1999-00 to 2005-06 was not smooth as there was huge gap between 2004-05 and 2005-06.

For preparation of backward series from 2005-06 to 1999-00 the gap between 2004-05 and 2005-06 has been covered by smoothing livestock series in two stages. In the first stage, livestock population of 1995-96 census has been extrapolated by applying new inter-census growth between 1995-96 and 2005-06 for subsequent years, and second stage, this extrapolated population has been used to estimate the output and GVA of livestock for the years 1999-00 to 2004-05. In table 2, updated and revised figures are given in column “New”.

In 1999-00 base, livestock output was comprised of various groups namely net sale of animals, natural growth, livestock products and poultry & products. However, in 2005-06 base all groups are parallel to 1999-00 base except “natural growth”. Now in 2005-06 base this group is called as “Natural growth and Regeneration” which includes animals of all age groups except died and slaughtered whereas in old base, value of new born animals was used to be taken only.

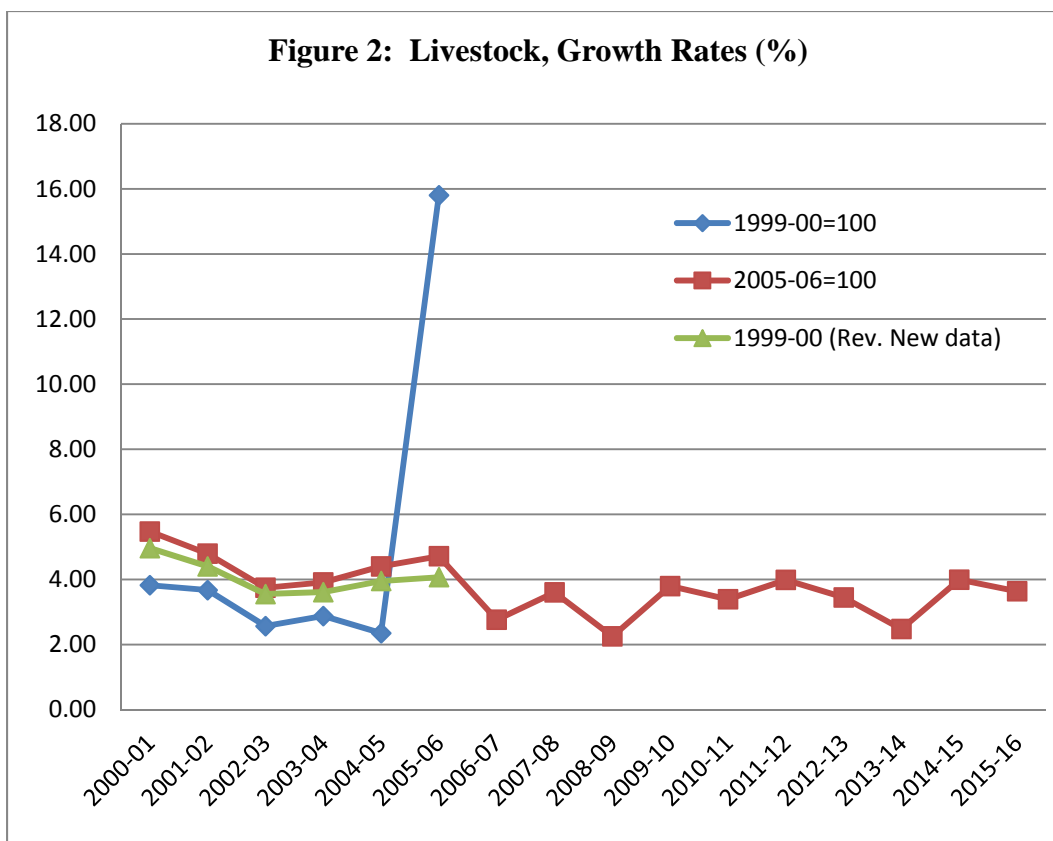
After smoothing of old base series, new growth of each component of output i.e. net sales, natural growth, livestock production and poultry & its products have been applied and then these are summed up to have total output. Similarly growth rates of the individual components of intermediate consumption have been applied and then combined together to have overall

intermediate consumption. Then the GVA estimates of backward series of livestock from 2005-06 to 1999-00 have been derived.

In the GVA estimates of livestock in base year 2005-06, there is an addition of a new component known as “Other Value Added” which contains value added of animal husbandry as well as of hunting. For backward series of value added of hunting, data has been taken from provincial budget books. The aforementioned components have been added up to obtain the overall value added of livestock for the period 2005-06 to 1999-2000. Comparison of GVA of livestock for 1999-2000 base and 2005-06 base is given in table 2 below:-

Year	Constant GVA 1999-2000 base				Constant GVA 2005-06 base	
	Original		New		Livestock	Growth Rate
	Livestock	Growth Rate	Livestock	Growth Rate		
1999-00	417120		464208		718984	
2000-01	433066	3.82	487240	4.96	758335	5.47
2001-02	448968	3.67	508684	4.40	794665	4.79
2002-03	460495	2.57	526720	3.55	824422	3.74
2003-04	473745	2.88	545758	3.61	856646	3.91
2004-05	484876	2.35	567316	3.95	894348	4.40
2005-06	561500	15.80	590421	4.07	936498	4.71

The differences in growth rates of GVA of livestock in 1999-2000 and 2005-06 bases exist for all the years and are principally due to the incorporation of the results of 2006 livestock census. Figure 2 is the graphical illustration of table 2. Original growth rates and the revised growth rates at 1999-2000 base are compared. The higher growth rate for the year 2005-06 has been absorbed by the years 1999-2000 to 2004-05. Also shown are the growth rates at 2005-06 base for the backward series of 2005-06 to 1999-2000 period.



A-III: Forestry

The figures of value added of forestry for the base year 1999-2000 were available in the PBS, which were used to derive the growth rate for all the years from 2005-06 to 1999-00. The growth rates thus derived have been applied to the GVA of forestry for the new base year 2005-06 to obtain the back-ward series of value added of this industry. Since there is no change in the methodology and data, the old growth rates are used for replotation. Comparison of GVA of forestry for 1999-2000 base and 2005-06 base is given in table 3 below:-

Year	Constant GVA at 1999-2000 base		Constant GVA at 2005-2006 base	
	Forestry	Growth Rate	Forestry	Growth Rate
1999-00	23447		47010	
2000-01	25571	9.06	51269	9.06
2001-02	24436	-4.44	48993	-4.44
2002-03	27150	11.11	54435	11.11
2003-04	26293	-3.16	52716	-3.16
2004-05	17785	-32.36	35658	-32.36
2005-06	17596	-1.06	35279	-1.06

A-IV: Fishing

The old base figures of value added of fishing were also available. The growth rate for all the years from 2005-06 to 1999-00 were calculated by using these figures and were applied to the 2005-06 figure of new base to obtain the back-ward series of value added of fishing industry. Since there is no structural and data change, the old growth rates have been applied. Comparison of GVA of fishing for 1999-2000 base and 2005-06 base is given in table 4 below:-

Year	Constant GVA at 1999-2000 base		Constant GVA at 2005-2006 base	
	Fishing	Growth Rate	Fishing	Growth Rate
1999-00	15163		39569	
2000-01	14715	-2.95	38400	-2.95
2001-02	12901	-12.33	33666	-12.33
2002-03	13346	3.45	34828	3.45
2003-04	13611	1.99	35519	1.98
2004-05	13691	0.59	35728	0.59
2005-06	16540	20.81	43163	20.81

Tables 18 and 19 are referred for comparison.

B: INDUSTRY SECTOR

Included in this group are the mining and quarrying, manufacturing (large scale manufacturing, small scale manufacturing and slaughtering), electricity generation and distribution and gas distribution and construction activities. The change of base of national accounts from 1999-2000 to 2005-06 document is referred to see the conceptual changes being incorporated. The industries/ sectors are discussed one by one in detail according to their data availability and the changes in methodology of the two bases.

B-I: Mining and Quarrying

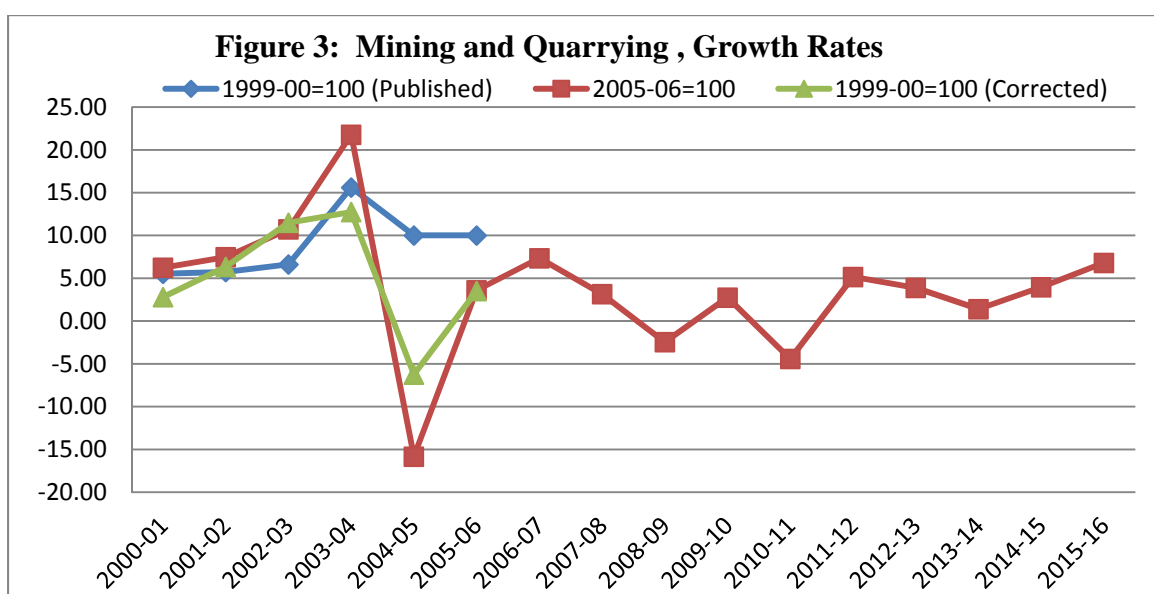
Gross value added of mining and quarrying is based on production of mines and minerals. In 1999-00 base gross output of mining and quarrying was prepared by using quantities reported by mineral departments. The GVA for new base year 2005-06 has been compiled by following through following steps:-

- The constant GVA of natural gas, crude oil, coal and other minerals has been compiled by applying the growth rates of GVA of these components in 1999-2000 base to the GVA of 2005-06 base, backward from 2004-05 to 1999-2000.
- The backward series of GVA of surface minerals has been compiled by applying the growth rate of other minerals for respective years.
- The GVA of crushing of stones (new addition in 2005-06 base) has been compiled by applying the growth rate of other minerals for respective years.

- The GVA of allied services has been compiled by applying the combined growth of natural gas and crude oil.
- Exploration services are basically compiled at current prices and have been converted into constant prices by applying the WPI crude oil deflator.

The aforementioned components have been added-up to obtain the overall GVA of the industry. Comparison of GVA and growth rates of Mining and Quarrying for 1999-2000 base and 2005-06 base are given in table 5 and figure 3. The growth rate of GVA in 2005-06 base estimates has significantly changed to 21.8% during 2003-04 as compared to 12.7% in 1999-2000 base estimates (including exploration costs) due to exploration services which have been compiled by applying the deflator to current estimates. The increase in valued added in 2003-04 has also resulted in the decline of growth rate in 2005-06 base estimates for the year 2004-05 to -15.8% as compared to -6.3% in 1999-2000 base estimates (including exploration costs).

Year	Published GVA 1999-2000 base		GVA 1999-2000 base inc. Exploration Cost		Constant GVA 2005-2006 base	
	Mining and Quarrying	Growth Rate	Mining and Quarrying	Growth Rate	Mining and Quarrying	Growth Rate
1999-00	81052		100296		192658	
2000-01	85528	5.52	103102	2.80	204673	6.24
2001-02	90431	5.73	109638	6.34	219954	7.47
2002-03	96418	6.62	122240	11.49	243541	10.72
2003-04	111473	15.61	137816	12.74	296588	21.78
2004-05	122621	10.00	129206	-6.25	249636	-15.83
2005-06	128288	4.62	133740	3.51	258628	3.60



B-II: Manufacturing

For compilation purpose, Manufacturing is divided into three subgroups, i.e. Large Scale Manufacturing Industries (LSMI), Small Scale Manufacturing Industries (SSMI) and Slaughtering. The methodology of compilation of GVA estimates for each sub-sector is described below in turn:-

a) Large Scale Manufacturing Industries (LSMI)

Large Scale Manufacturing Industries (LSMI) has witnessed a structural change in the rebasing of national account from 1999-2000 to 2005-06. Details can be seen in the change of base document. The notable changes between two bases are as under:-

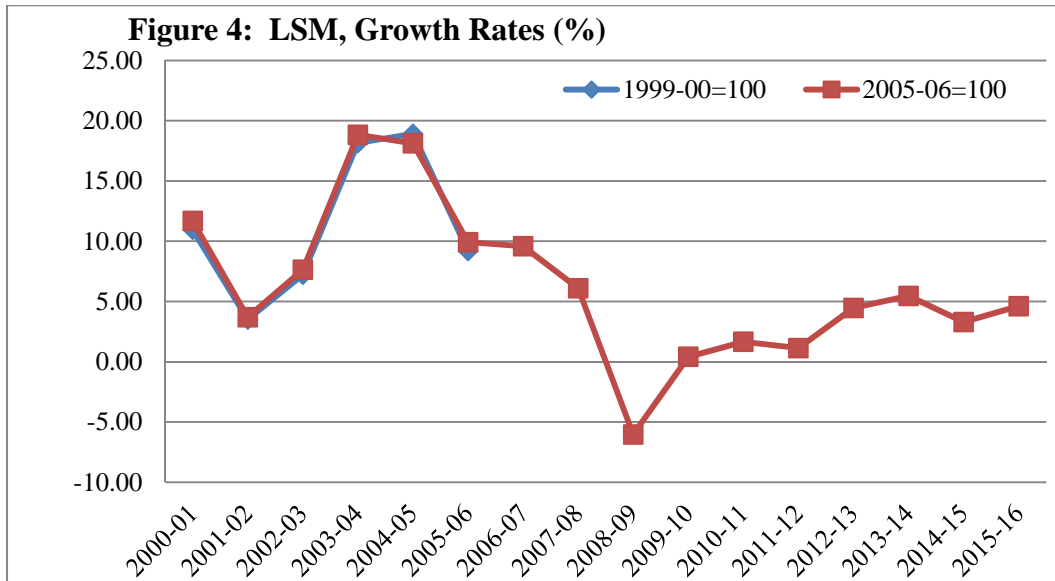
- Cotton ginning, which was part of LSM prior to 2005-06 rebasing, is now part of agriculture industry.
- Results of papers and paper products of Census of Manufacturing Industries (CMI) 2005-06 had to be enhanced by the figures for printing and publishing of newspapers, which were estimated by special study because this activity albeit being part of manufacturing was not covered in the CMI.
- GVA of meat and meat products were deducted from the results of CMI 2005-06.
- The GVA of LSM in 1999-2000 base was valued at factor cost whereas in the 2005-06 base it has been valued at basic prices.
- The GVA of LSM in 1999-2000 base was used to be extrapolated by QIM comprising of 100 items whereas in the 2005-06 base it is extrapolated by QIM comprising of 112 items.
- The estimates of GVA of LSM were not adjusted for FISIM in 1999-2000 base but in 2005-06 base they are adjusted for FISIM allocated to manufacturing. The GVA is extrapolated first by QIM and then FISIM is allocated.

GVA of LSMI at constant prices at 1999-2000 base was used to be extrapolated forward by applying the Quantum Index of Manufacturing (QIM) comprising 100 items having total weight of 75.0750. In principle, the same methodology has been maintained in new base 2005-06 but with QIM comprising of 112 items having total weight of 70.3317.

The GVA of LSMI at new base for the year 2005-06 has been extrapolated back ward by applying the specifically compiled QIM comprised of 99 items excluding cotton ginning having weight of 3.3682. Due to exclusion of cotton ginning, deviation in growth rates has been observed between newly generated backward series of LSMI at 2005-06 base and old series at 1999-2000 base for the years 2000-01 to 2005-06. The FISIM was adjusted independently of QIM for each year. The comparison of GVA at constant prices as well as of growth rates of LSMI for 1999-2000 base and 2005-06 base is presented in the table 6 below and graphically illustrated in figure 4.

Table 6: Comparison of GVA of LSM for 1999-2000 base and 2005-06 base (Rs. Million)

Year	Constant GVA 1999-2000 base			Constant GVA 2005-06 base	
	GVA	Growth Rate (inc. C.G)	Growth Rate (exc. C.G)	LSM (2005-06=100)	Growth Rate
1	2	3	4	5	6
1999-00	338602			485202	
2000-01	375687	10.95	11.68	541868	11.68
2001-02	388859	3.51	3.69	561874	3.69
2002-03	416955	7.23	7.64	604803	7.64
2003-04	492632	18.15	18.83	718695	18.83
2004-05	585781	18.91	18.12	848943	18.12
2005-06	639585	9.18	9.92	933139	9.92



b) Small Scale Manufacturing Industries (SSMI)

Small Scale manufacturing covers industrial establishments & households units, engaged in manufacturing activity having less than ten employees. Annual Estimates of GVA of SSMI for the base year 2005-06 have been compiled using information from “Small and Household Manufacturing Industries Survey (SHMI) 2006-07”, which are extrapolated at constant prices for subsequent periods by applying an inter-survey annual compound growth rate of 8.20% between 2006-07 and 1996-97. In the 1999-2000 base, SSMI was used to be extrapolated by a fixed growth rate of 7.51% based on the study conducted for change of base from 1980-81 to 1999-2000

The backward series of SSMI at constant prices for the base year 2005-06 has been compiled by applying the growth rate of the same sector in the base year 1999-2000. Resultantly, no change in the growth rates between 1999-2000 base and 2005-06 base has been observed. The

comparison of GVA of SSMI at constant prices for the two bases is presented in the table 7 below:-

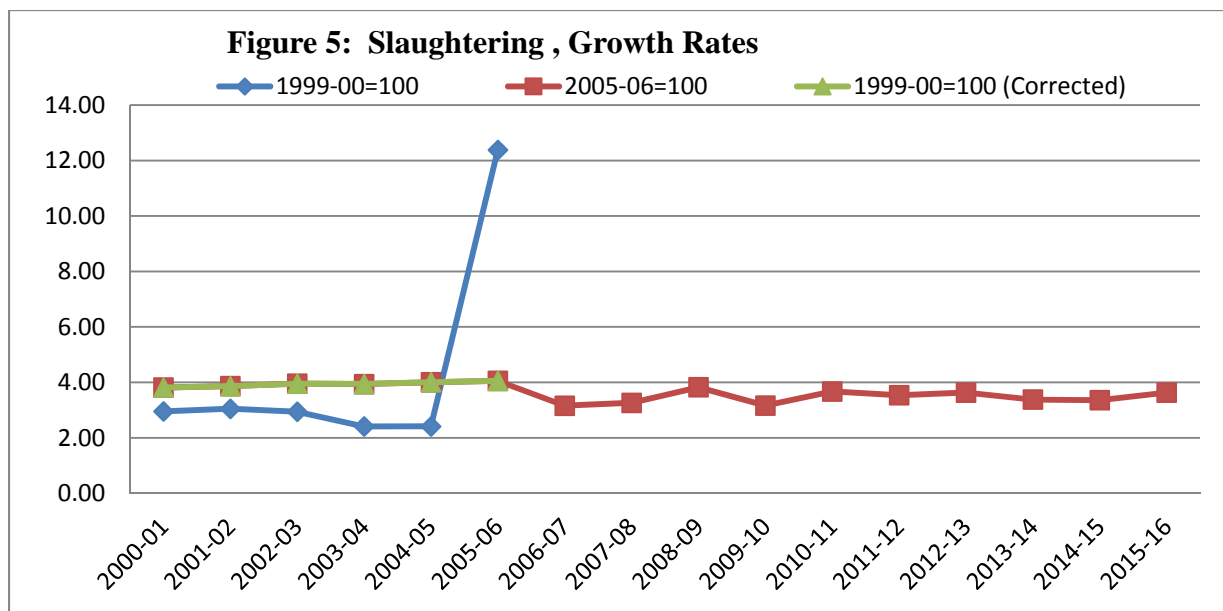
Year	Constant GVA at 1999-2000 base		Constant GVA at 2005-2006 base	
	GVA SSM	Growth Rate	SSM (2005-06 = 100)	Growth Rate
1	2	3	4	5
1999-00	132369		58878	
2000-01	142310	7.51	63300	7.51
2001-02	152997	7.51	68054	7.51
2002-03	164487	7.51	73165	7.51
2003-04	176841	7.51	78660	7.51
2004-05	190121	7.51	84567	7.51
2005-06	206656	8.70	91922	8.70

c) Slaughtering

The output of slaughtering is divided into two groups namely meat and other products whereas intermediate consumption includes value of animals slaughtered. So gross value added for the year 1999-2000 was the difference between output and intermediate consumption which was used to be extrapolated by applying the growth rate of meat of respective years. However, an extra ordinary increase in growth was observed between the years 2004-05 and 2005-06 due to use of new meat production in 2005-06.

For compilation of backward series of slaughtering, in the first stage inter-census growth of all the components of meat i.e. beef, mutton and poultry during 1995-96 and 2005-06 censuses were applied to obtain the total production of meat for the periods in question. In the second stage, growth rate of meat based on its aggregate production were derived which were subsequently used for the derivation of the value added estimates of slaughtering. All components of output as well as intermediate consumption are parallel to those in 1999-00 base, so there is no structural change in this activity and consequently no adjustment was needed. After incorporating the data changes, the growth rates have been re-determined as shown under the “New” column and applied for retropolation. The comparison of GVA of slaughtering at constant prices for the two bases is presented in the table 8 below. The behavior of the jump, visible in figure 5, is similar to that of livestock, slaughtering is heavily dependent on it.

Year	Constant GVA 1999-2000 base				Constant GVA 2005-2006 base	
	Original		New		Slaughtering	GR
	Slaughtering	GR	Slaughtering	GR		
1999-00	51830		52919		59762	
2000-01	53360	2.95	54935	3.81	62039	3.81
2001-02	54985	3.05	57057	3.86	64436	3.86
2002-03	56602	2.94	59312	3.95	66982	3.95
2003-04	57966	2.41	61646	3.94	69618	3.94
2004-05	59363	2.41	64113	4.00	72404	4.00
2005-06	66712	12.38	66712	4.05	75339	4.05



B-III: Electricity Generation & Distribution and Gas Distribution

These two activities are estimated independently and then combined together for the purpose of presentation. Methodology adopted for backward series is as under:

a) Electricity Generation and Distribution:

In order to construct backward series it was imperative to harmonize the structure of old and new series. For this purpose following structural changes have been adopted in the new base:

Structural Changes in New Base:

1. The output was roughly at the same level in both the basis, however, the only difference was that subsidy was added in the output of 2005-06.

2. In old base the word “others” was used for IPPs and captives however in 2005-06 they have been given separate status.
3. Water supply was part of this sector in 1999-00 however in 2005-06 it has been excluded.

Structural Changes in Old Base:

- a) Subsidy which was not part of output in the old base has been included since 1999-00 to 2005-06 in the old base.
- b) Water supply was also excluded since 1999-00 onwards.

Methodology

- i. First step in compilation of backward series was to harmonize the structure of both the basis. So, GVA of Water Supply at constant prices was excluded from the overall GVA of Electricity generation from 1999-00 to 2004-05.
- ii. Subsidies received by WAPDA and KESC were added in their output. The figures of subsidies were taken from the General Government Services Section of PBS. Figures at current prices were calculated for the period 1999-00 to 2005-06.
- iii. The current prices of the new old series were deflated using deflators of CPI (Electricity). Growth rates at constant prices were calculated for this newly developed old series (incorporating subsidies and excluding Water Supply). These growth rates were used for backward series.
- iv. The GVA for electricity generation at constant prices for new base 2005-06 was extrapolated backwards for 2004-05 till 1999-00 with the growth rate of old series.

b) Gas Distribution:

Structural Changes in Old Base:

Structural changes, which are recorded in the change of base document, are given below,.

1. Compressed Natural Gas was included in the distribution in 1999-00 but in 2005-06 base it has been included in trade and excluded from this sector.
2. OGDCL and PPL were part of the old base however in new base they were excluded as their major activity was exploration. Double counting has been rectified.
3. Output of Mari Gas Company was comprising of exploration activities and distribution activities in old base. However in new base only distribution activities have been made part of output while exploration activities have been excluded from its output. It is a component of mining industry.

Methodology:

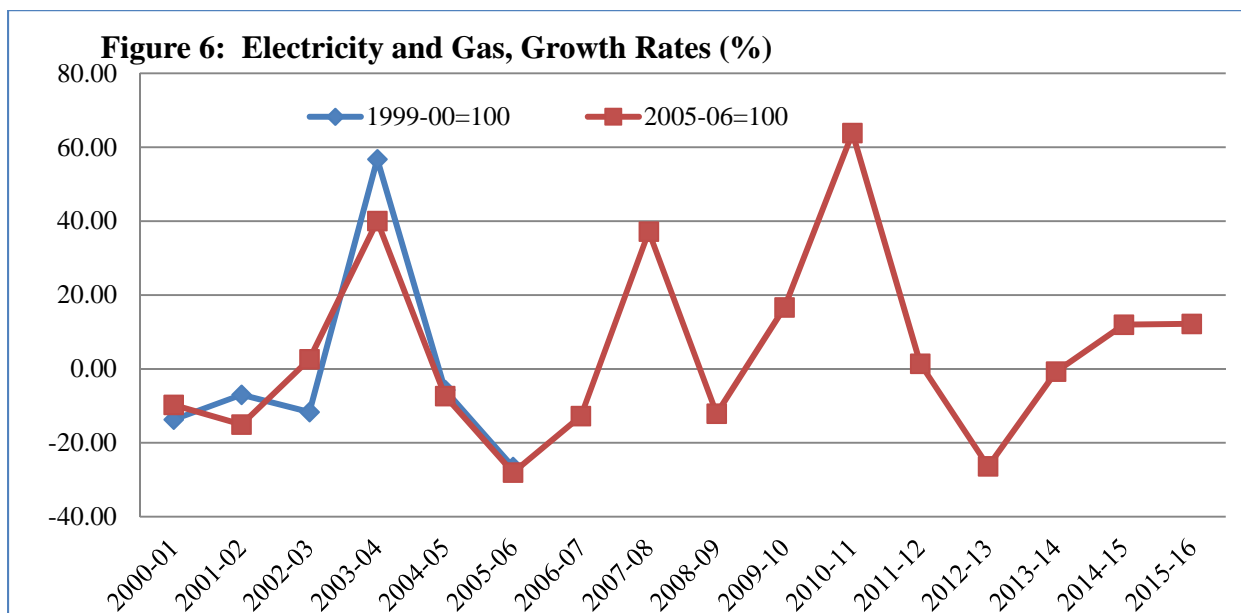
- i. First step in compilation of backward series was to harmonize the structure of both the basis. So, GVA of CNG at constant prices was excluded from the overall GVA of Gas Distribution from 1999-00 to 2005-06.

- ii. Growth rates of old series, after excluding CNG, LPG, OGDCL, PPL and exploration part of Mari Gas, were calculated. These growth rates were used for backward series.
- iii. The GVA for gas distribution sector at constant prices for new base 2005-06 was extrapolated backwards till 1999-00 with the growth rate of harmonized series.
- iv. GVAs at constant prices for Electricity generation and distribution and gas distribution were then added up to obtain overall GVA at constant prices for electricity and gas sector.
- v. This methodology is in-line with the one, used in the compilation of annual GVA in the new base.

The comparison of GVA of electricity generation & distribution and gas distribution at constant prices for the two bases is presented in the table 9 below while graphical is shown in figure 6.

Table 9: Comparison of GVA of Electricity Generation & Distribution and Gas Distribution for 1999-2000 base and 2005-06 base (Rs. Million)

Year	Constant GVA 1999-2000 base		Constant GVA 2005-2006 base					
	Electricity and Gas & Water Supply	Growth Rate	Electricity Generation & Distribution	Growth Rate	Gas Distribution	Growth Rate	Electricity Gen. & Distr. and Gas Distribution	Growth Rate
1999-00	139626		178679		11267		189946	
2000-01	120465	-13.72	163907	-8.27	7954	-29.40	171861	-9.52
2001-02	112026	-7.01	135000	-17.64	10246	28.82	145246	-15.49
2002-03	98932	-11.69	137706	2.00	11185	9.16	148891	2.51
2003-04	155078	56.75	194859	41.50	13960	24.81	208819	40.25
2004-05	146214	-5.72	171722	-11.87	20221	44.85	191943	-8.08
2005-06	107391	-26.55	93406	-45.61	23414	15.79	116820	-39.14



B-IV: Construction

The structure of construction industry has remained same in the new base year 2005-06 as was in the old base of 1999-2000. The estimates of GVA of construction industry are compiled primarily at current prices by incorporating construction expenditures incurred by various industries which are compiled through direct annual surveys/census of establishments. The estimates of value added in the backward series of construction industry at current prices from 2005-06 to 1999-2000 have been compiled by applying the current growth rates in 1999-2000 base series for the respective years. The estimates at constant prices have been obtained by applying the WPI building material deflator with 2005-06 as the base year.

The estimates of backward series for the period of 2005-06 to 1999-2000 at constant prices for 2005-06 base year as well as for 1999-2000 base year are presented in the table 10 given below:-

Year	Constant GVA 1999-2000 base		Constant GVA 2005-2006 base	
	Construction	Growth Rate	Construction	Growth Rate
1999-00	87386		136943	
2000-01	87846	0.53	144129	5.25
2001-02	89241	1.59	143355	-0.54
2002-03	92789	3.98	149255	4.12
2003-04	82818	-10.75	139024	-6.86
2004-05	98190	18.56	162348	16.78
2005-06	108195	10.19	189946	17.00

C: SERVICES SECTORS

C-I: Wholesale and Retail Trade

Wholesale and Retail Trade (WRT) is the combination of several distinct groups. The updated output, if any, of the components entering in this sector have been used to determine revised growth rates. These new growth rates are used for backward extrapolation of the components as described below:-

1) Crops

The old base figures of Trade Value Added (TVA) of each crop were available which were used to derive growth rates for all the years from 2005-06 to 1999-00 and then applied to the 2005-06 figure of new base to extrapolate the backward series of trade value added of each crop. The crop-wise trade value added was aggregated to obtain the figures of crop group.

2) Livestock

The livestock series of GVA in the old base series was not smooth and so was the trade value added of livestock owing to a huge jump in GVA during the year 2004-05. The same smoothened process which have already been described in detail during discussion in livestock section in agriculture, have been adopted for smoothing the trade value added of livestock. In old base series, livestock component was comprised of three sub-groups, i.e., milk, poultry & poultry products and other products whose respective market shares and trade margins were applied to the output of these three components to make a new series of trade value added of livestock on old base 1999-2000. The TVA of these three groups has been extrapolated backward by applying their respective growths of old base to the new base TVA of 2005-06.

In new base estimates, one more group i.e., live animals sold for slaughtering is also included in trade of livestock and estimates of TVA for the backward series for this component have been extrapolated backward by applying the fixed growth rate of net sales of animals. The TVA of all these groups are then added up to make a back series of trade value added of Livestock.

3) Forestry

The backward series of forestry is based on the growth rates of old base series of same industry which were derived from the old base figures of trade value added. The same growth rates for all the years were then applied to the new base figure of TVA for the year 2005-06 to derive the backward series of trade value added for forestry for the years 2005-06 to 1999-2000.

4) Fishing

The old base figures of trade value added of fishing are also available which were used to derive the growth for all the years from 2005-06 to 1999-00. These growth rates were applied to the 2005-06 figure of new base year to obtain the estimates of backward series of fishing trade value added.

5) Large Scale Manufacturing

The estimates of trade value added of large scale manufacturing for backward series were derived by applying the growth rate of specifically constructed Quantum Index of Manufacturing (QIM) comprising of 99 items whose detail has already been described during the discussion on large scale manufacturing above.

6) Small Scale Manufacturing

The trade value added of small scale has been extrapolated backward from 2005-06 to 1999-00 by using a same constant growth as was used to be in old base series.

7) Slaughtering

The output of slaughtering has also been smoothed due to an outlier for the year 2004-05 by following the same method as was described in livestock section above. The proportion of market share and trade margins being used in the 2005-06 base were applied to the specifically derived output of the two components of slaughtering i.e., meat and other products to make a new and smooth base series of trade value added of slaughtering.

8) Imports

The imports are categorized into three major groups i.e. consumer goods, capital goods and intermediate goods whose total value added figures on old base were used to derive the growth rates for all the years from 2005-06 to 1999-00. These growth rates were then applied to the 2005-06 figures of new base to obtain the estimates of backward series of trade value added of imports.

9) CNG (special stores)

The CNG was not part of old base series and thus is an addition in the new base estimates of trade value added. The estimates of TVA for backward series of CNG are based on the figures of production of CNG for the previous years which were taken from the year book on energy. These figures of production were then converted into trade value added by applying trade margin and Input-Output ratio used in the base year 2005-06.

10) Repair & Maintenance of Vehicles

The estimates of backward series of output of Repair & Maintenance of Vehicles have been derived by using the growth rates of mechanized road transport. The trade margins, which are being used in the new base estimates, have been applied to this output to make the trade value added of this component.

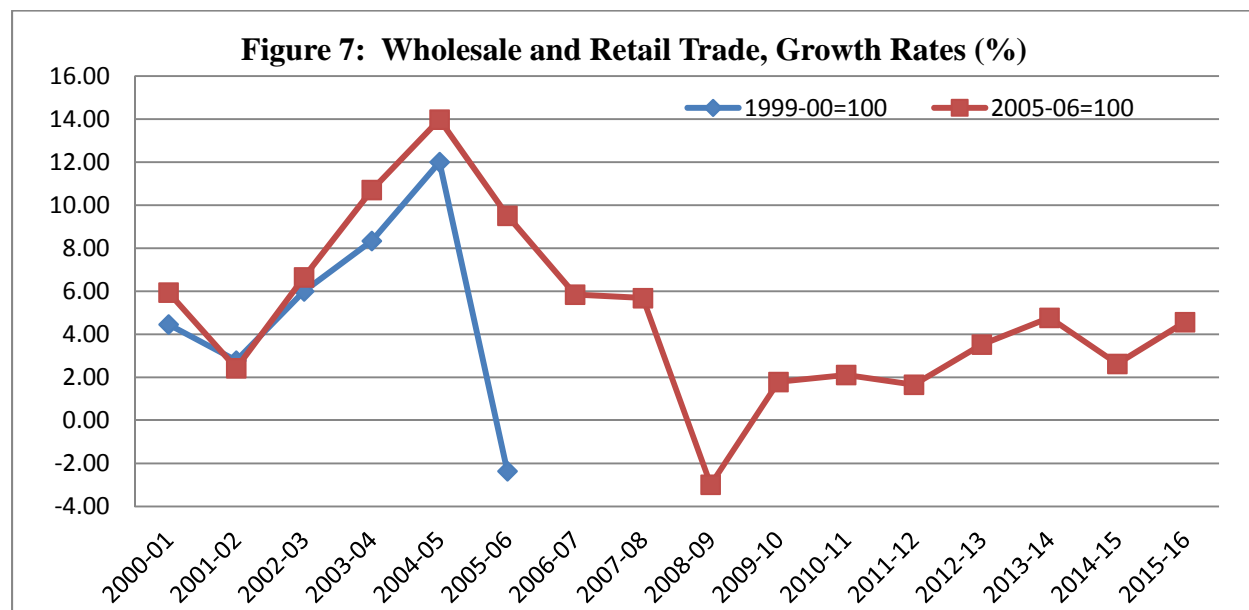
11) Hotels & Restaurants

The GVA estimates of trade value added of Hotels & Restaurants have been extrapolated backward by applying a fixed growth rate of 10% to the new base GVA of 2005-06. It is pertinent to mention that in the old base estimates, this activity was used to be extrapolated at the same 10% growth rate in contrary to the new base estimates where it is extrapolated at constant growth rate of 4.92%.

All the components mentioned above were then added up to make a backward series of WRT for base year 2005-06 and same is presented along with figures of 1999-2000 base in the table 11 below:-

Table 11: Comparison of GVA of Wholesale and Retail Trade (WRT) for 1999-2000 base and 2005-06 base (Rs. Million)				
Year	Constant GVA 1999-2000 base		Constant GVA 2005-2006 base	
	WRT	Growth Rate	WRT	Growth Rate
1999-00	621842		963832	
2000-01	649564	4.46	1021145	5.95
2001-02	667615	2.78	1045916	2.43
2002-03	707665	6.00	1115503	6.65
2003-04	766693	8.34	1234956	10.71
2004-05	858695	12.00	1407619	13.98
2005-06	838426	-2.36	1541563	9.52

The growth rates of GVA of WRT for 1999-2000 and 2005-06 bases are roughly comparable except for the year 2005-06 where a significant difference has been observed. This difference is mainly due to use of livestock census data in the trade value added of livestock and slaughtering industries for the year 2005-06. Further, correction of the detected error in the compilation of value added of WRT during 2005-06 where GVA of slaughtering was used in the value added compilation of WRT instead of output, is another reason behind generating that difference in growth rate between old and new base estimates. The accumulated changes are shown in figure 7.



C-II: Transport, Storage and Communication

Transport, Storage and Communication are three distinct activities and have been covered separately in the 1999-2000 and 2005-06 bases. For compilation purpose, transport activity is further divided into various activities comprising of railways, road transport, pipeline transport, water transport and air transport. The foreign airlines data decreased from 2002-03 to 2003-04

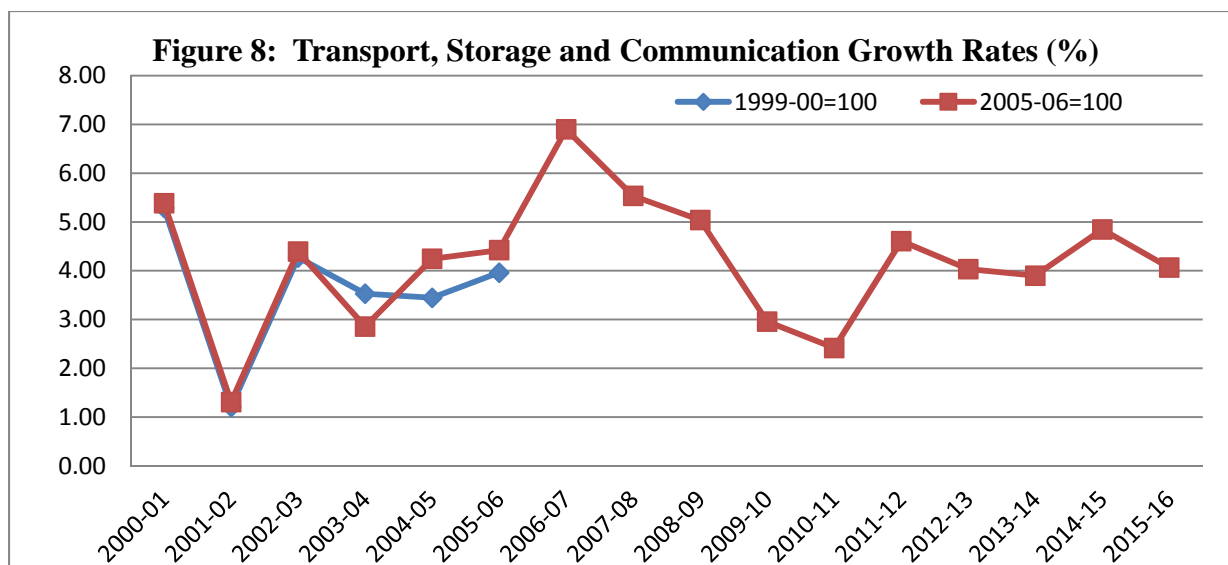
and the incorporation of this decreasing trend in the backward series has widened the growth rates due to the base effect. The detail of all the activities along with their old base growth rates which were used to derive the GVA estimates at constant prices and newly derived back series is presented in the table 13.

The estimates of backward series for all the activities included in the transport sub-sector, except road transport, for the years 2005-06 to 1999-2000 were derived separately using their specific individual growth rates of respective years on 1999-2000 base which were applied to the GVA of 2005-06 base of each activity. The road transport data is quantitative. The road transport activities is further divided into mechanized (buses, passenger wagons, trucks, NLC, oil & water tankers, pick-ups, taxis and rickshaws etc.), and non-mechanized categories. The output for each aforementioned component at constant prices for the years 2005-06 to 1999-2000 was derived separately using their specific individual growth rates based on actual quantities of respective years. The output of oil and water tankers (new addition in 2005-06 base) was derived by using the growth rates of trucks for respective years. The IC was derived by using the I/O ratio of 2005-06 base. The component-wise GVA was derived separately by taking difference of output and IC, which was later added-up to obtain the GVA of road transport subsector.

The estimates of backward series of storage sub-sector for the years 2005-06 to 1999-2000 were derived by using growth rates of same sub-sector of respective years on 1999-2000 base which was applied to the GVA of 2005-06 base. The detail of newly derived GVA figures at constant prices of storage industry on 2005-06 base and old base growth rates which were used to derive the estimates is presented in the table 13. The estimates for the backward series of communication industry have also been derived by applying the old base growth rate to the GVA of 2005-06 base and same are also presented in the table 13.

All the components mentioned above were then added up to make a backward series of Transport, Storage and Communication for base year 2005-06 and same is presented along with figures of 1999-2000 base in the table 12 and figure 8 below.

Table 12: Comparison of GVA of Transport, Storage and Communication for 1999-2000 base and 2005-06 base (Rs. Million)				
Year	Constant GVA 1999-2000 base		Constant GVA 2005-2006 base	
	Transport, Storage and Communication	Growth Rate	Transport, Storage and Communication	Growth Rate
1999-00	400983		777376	
2000-01	422195	5.29	819237	5.38
2001-02	427296	1.21	829927	1.30
2002-03	445552	4.27	866381	4.39
2003-04	461276	3.53	891117	2.86
2004-05	477171	3.45	928947	4.25
2005-06	496073	3.96	970028	4.42



C-III: Finance & Insurance Sector

Finance & Insurance Sector (FIS) is composed of State Bank of Pakistan, Scheduled Banks, Non-Scheduled Banks, Leasing Companies, Modarba Companies, Insurance & Pension Funds and Financial Auxiliaries. The noteworthy conceptual changes have been occurred in the FIS due to incorporation of the concept of Financial Intermediation Services Indirectly Measured (FISIM). The concept of FISIM is introduced in the new methodology in the light of 2008 SNA. The whole Sector is now FISIM based. Generally, the backwards estimates of FISIM have been prepared following the same methodology as was used during the change of base of national accounts from 1999-2000 to 2005-06¹. It is worth mentioning that “call money rate” was used as a reference rate of interest instead of “KIBOR” in the estimation of FISIM for scheduled banks for years 1999-2000 and 2000-01 as the later was not available for those periods. Further, backward estimates of GVA of stock exchange and asset companies have been compiled by using the all shares index of stock exchanges and deflated by CPI.

All components discussed above have been added up to obtain the estimates of GVA of Finance & Insurance Sector. The comparison of GVA of Finance and Insurance Industry at constant prices for newly derived series with the already existing series is presented in the table 14.

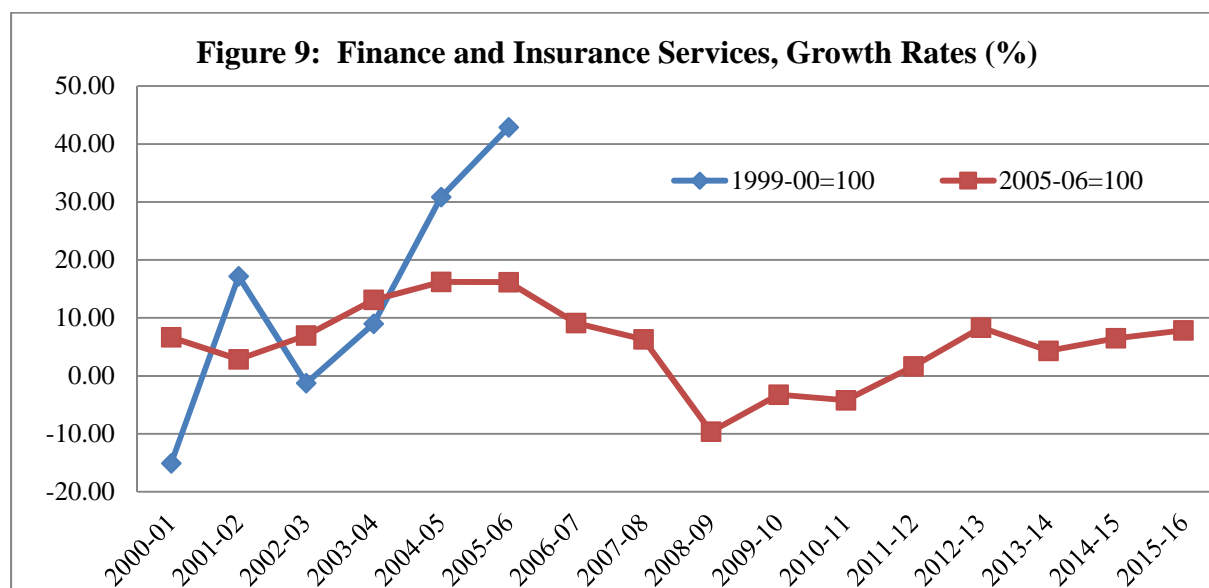
¹ See “National Accounts of Pakistan: Change of base from 1999-2000 to 2005-06” for detail

Table 13: Activity-wise detail of Transport, Storage and Communication (Rs. Million)

Name of Agencies	1999- 2000	2000- 01	2001- 02	2002- 03	2003- 04	2004- 05	2005-06 (2005-06 base)	2000-01/ 1999-00	2001-02/ 2000-01	2002-03/ 2001-02	2003-04/ 2002-03	2004-05/ 2003-04	2005-06/ 2004-05
Railways	1358	4199	1457	915	1339	6692	7474	209.14	-65.30	-37.22	46.33	399.88	11.69
Water Transport	16422	17636	16550	22046	23687	28005	33167	7.40	-6.16	33.21	7.44	18.23	18.43
Air Transport	53605	53077	53449	59985	52596	45975	43670	-0.98	0.70	12.23	-12.32	-12.59	-5.01
Pipeline Transport	8686	6165	7337	6838	6805	6157	5203	-29.02	19.01	-6.80	-0.48	-9.53	-15.50
Communication	112681	120774	118985	124394	134986	143376	130709	7.18	-1.48	4.55	8.52	6.22	-8.83
<i>Road Transport</i>	562903	594835	609176	628009	645513	669332	721597	5.67	2.41	3.09	2.79	3.69	7.81
i) Mechanized	498159	529630	543589	561904	578976	604111	655916	6.32	2.64	3.37	3.04	4.34	8.58
a) Intercity	234234	244608	249900	258130	315390	328926	364362	4.43	2.16	3.29	22.18	4.29	10.77
b) Within city	263926	285022	293689	303774	263586	275185	291555	7.99	3.04	3.43	-13.23	4.40	5.95
ii) Non-Mechanized	64744	65205	65586	66105	66537	65221	65681	0.71	0.58	0.79	0.65	-1.98	0.70
Storage	21721	22550	22973	24195	26191	29411	28209	3.82	1.88	5.32	8.25	12.29	-4.09
TOTAL Unadjusted	777376	819237	829927	866381	891117	928947	970028	5.38	1.30	4.39	2.86	4.25	4.42

Year	Constant GVA 1999-2000 base		Constant GVA 2005-2006 base	
	Finance and Insurance	Growth Rate	Finance and Insurance	Growth Rate
1999-00	132454		157924	
2000-01	112455	-15.10	168431	6.65
2001-02	131761	17.17	173234	2.85
2002-03	130081	-1.28	185309	6.97
2003-04	141768	8.98	209602	13.11
2004-05	185501	30.85	243563	16.20
2005-06	265056	42.89	282920	16.16

Incorporation of the FISIM in the GVA estimates of FIS have generated significant differences in the growth rates at 1999-2000 base and 2005-06 base. About 78% is the contribution of the FISIM component. The difference of the two approaches is clear from the figure 9.



C-IV: Housing Services

In 2005-06 based estimates, housing services is comprised of three sub-sectors namely ownership of dwellings, Real Estate agents activities related to residential housing, and Co-operative Housing Societies in contrast to 1999-2000 base where it was comprised of ownership of dwellings only. The important points regarding housing services are as under:-

- In the 1999-2000 base, this industry was known as “Ownership of Dwelling” whereas in the 2005-06 base it is known as “Housing Services”.
- Real estate activities are now covered under housing services which were part of other services known as “Social, Community and Personal Services” in the 1999-2000 base.

- Co-operative housing societies are also new addition to the housing services in the 2005-06 base.
- GVA was used to be extrapolated by growth rate of 3.51 in 1999-2000 base which is now being extrapolated by applying the constant growth rate (4.00%) of two and more room dwellings between 1981 and 1998 census.

For the purpose of backward series of housing services on 2005-06 base, the growth rate of aggregate of GVA of real estate agents activities, which was part of Social, Community and Personal services, and Ownership of Dwellings at 1999-2000 base has been used for the years 1999-2000 to 2005-06. The growth rates of newly generated backward series of housing services and old base series are almost same and their comparison is given in Table 15 below.

Year	Constant GVA at 1999-2000 base						Constant GVA at 2005-06 base	
	Ownership of Dwellings (OD)	Growth Rate	Real Estate	Growth Rate	Total (OD+ Real Est.)	Growth Rate	Housing Services (2005-06= 100)	Growth Rate
1999-00	110425		6353		116778		411458	
2000-01	114593	3.77	6577	3.53	121170	3.76	426933	3.76
2001-02	118604	3.50	6809	3.53	125413	3.50	441883	3.50
2002-03	122466	3.26	7047	3.50	129513	3.27	456330	3.27
2003-04	126764	3.51	7294	3.50	134058	3.51	472342	3.51
2004-05	131214	3.51	7549	3.50	138763	3.51	488921	3.51
2005-06	135820	3.51	7813	3.50	143633	3.51	506081	3.51

C-V: General Government Services

Details of the sector have been documented in the change of base document 2013. This sector includes the non-market goods and services producing industry under it. All government market producers are included in other industries like railway, airlines etc.. Market producing autonomous bodies have been included in their industries but non-market producing bodies, controlled by the government are included here. In the new base estimates, the output of the autonomous bodies and rent of residential buildings which were not covered in old base estimates, have also been covered. These two components are not significant but it improved the coverage. The estimates of backward series from 2005-06 to 1999-2000 have been compiled by following the steps, described as under:-

- In the first step backward series for wages & salaries and depreciation of Public Admin & Defense (PA&D) were calculated using their respective growth rates in old base series which were then used to obtain the backward series for PA & D of the general government sector.
- For autonomous bodies actual data was available only for the year 2005-06. The forward and backward series were calculated by using the growth rates of wages and salaries of PA&D. Further, depreciation for autonomous bodies was also calculated

by using the growth rates of depreciation of PA&D. Both figures were then added up to obtain the value added figure for autonomous bodies.

- In the next step, figures for PA & D and autonomous bodies were added to obtain the overall GVA figures for General Government Services from 2005-06 to 1999-2000.

The comparison of GVA along with growth rates at constant prices of general government services between 1999-2000 base and 2005-06 base is presented in the table 16 below:-

Year	Constant GVA at 1999-2000 base		Constant GVA at 2005-06 base	
	Public Admn. & Defense	Growth Rate	General Government Services	Growth Rate
1999-00	220291		314369	
2000-01	225152	2.21	321514	2.27
2001-02	240585	6.85	343739	6.91
2002-03	259148	7.72	370484	7.78
2003-04	267321	3.15	382762	3.31
2004-05	268826	0.56	385699	0.77
2005-06	295959	10.09	425218	10.25

C-VI: Other Private Services

Other private services industry is comprised of various distinct activities such as renting of machinery, computer related activities, other business activities (legal, accounting, auditing, market research, business consultancy, architectural & engineering services and advertising), education, health & social work, membership organizations, NGOs, recreational, cultural & sports activities, other services (washing, dry-cleaning, hairdressing, pet caring, shoe shining etc.) and activities of household as employers (domestic staff). The important points need to be considered for compilations of backward series of other private services are as under:-

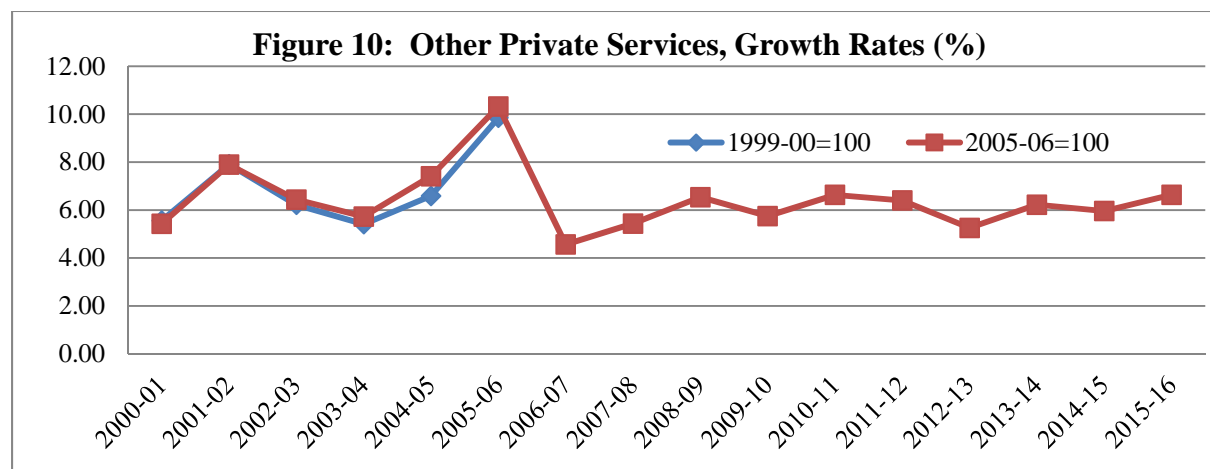
- In the 1999-2000 base, this industry was known as “Social, Community and Personal Services” which has been re-named as “Other Private Services” in the 2005-06 base.
- Real estate activities used to be included in this sector which is now covered under housing services.
- In the base 1999-2000 the activities of Membership Organizations and NGO’s were covered under one title “NPISH”. However, these activities are covered under separate titles in the 2005-06 base.
- Renting of machinery is the new addition to the GVA of other private services in the 2005-06 base.
- Autonomous bodies producing education services at market prices is also a new addition in 2005-06 base.

The backward series of other private services at 2005-06 base has been compiled by applying the growth rates of GVA of respective activities covered under Social, Community and Personal Services in the 1999-2000 base but with following exceptions:-

- The GVA of computer related activities covered under Software Export Board, which is a new addition in 2005-06 base, has been extrapolated backward by applying the growth rate of “Pakistan Software Housing Association” (PASHA) in 1999-2000 base.
- The GVA of autonomous bodies providing education services at significant market prices, which was not part of GVA in 1999-2000 base, has been obtained by applying the growth rate of education activities for the respective years.
- The GVA estimates of backward series of Membership Organizations and NGO’s have been obtained by applying the growth rate of “NPISH” in 1999-2000 base.
- The backward estimates of renting of machinery have been obtained by applying the overall growth rate of all the activities included in other private services due to non-availability of any other relevant indicator. However, no significant change in the overall growth rate was observed due to insignificant contribution of renting of machinery in other private services.

Resultantly, minor differences in growth rates of old base series of Social, Community and Personal Services and newly generated series of other private services have been observed for the years 2000-01 to 2005-06 and same are presented in the table 17 below. It is a heavy sector with smaller changes proportionally, hence smaller changes in the growth rates as shown in figure 10.

Year	Constant GVA 1999-2000 base		Constant GVA 2005-2006 base	
	Social, Community & Personal Services	Growth Rate	Other Private Services (2005-06=100)	Growth Rate
1999-00	321551		424886	
2000-01	339437	5.56	447960	5.43
2001-02	366285	7.91	483320	7.89
2002-03	389067	6.22	514431	6.44
2003-04	410125	5.41	543900	5.73
2004-05	437152	6.59	584219	7.41
2005-06	480217	9.85	644514	10.32



CHAPTER 3

Summary

In this chapter summary of the techniques and the results is presented. The crops sub-sector incorporated the structural as well data changes. Livestock component has been updated with the help of new data. There are structural changes in the LSM and data changes in slaughtering. Their treatment is like crops and livestock respectively. There are structural and data changes in the electricity generation and distribution and gas distribution. Wholesale and retail trade is resultant of other sectors, those changes have been introduced. Transport is a combination of different sub-components which have been updated and accumulated. Finance and insurance services component is totally based on new methodology. Minor changes are introduced in the general government services and other private services. Forestry and fishing remained unchanged, hence the original growth rates have been applied. Similar behavior is of the mining and quarrying sector. Construction and housing services remained unchanged, original growth rates have been applied.

Table 18 shows the GVA and growth rates (un-adjusted for fisim) of agricultural, industry and services sectors from 1999-2000 to 2005-06 at constant base prices of 1999-2000 and 2005-06. Table 19 shows the detailed industry-wise figures from 1999-2000 to 2005-06 at constant base prices of 2005-06. Table 20 shows the original and the backward series growth rates.

1. Un-adjusted summary tables (without FISIM)

The industry-wise GVA at constant prices for the period from 1999-2000 to 2005-06 on 2005-06 base is presented in the table 18 below:-

Base Year	Industry	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Constant GVA 1999-2000 base	Agricultural Sector	923609	903499	904433	941942	964827	1027403	1092098
	Growth (%)		-2.18	0.10	4.15	2.43	6.49	6.30
	Industrial Sector	830865	865196	888539	926183	1076808	1207268	1256827
	Growth (%)		4.13	2.70	4.24	16.26	12.12	4.11
	Services Sectors	1807546	1863396	1952146	2053979	2173947	2358559	2511551
	Growth (%)		3.09	4.76	5.22	5.84	8.49	6.49
	Total (GDP)	3562020	3632091	3745118	3922104	4215582	4593230	4860476
Growth (%)		1.97	3.11	4.73	7.48	8.96	5.82	
Constant GVA 2005-06 base	Agricultural Sector	1533707	1522616	1534168	1601918	1647551	1763292	1785768
	Growth (%)		-0.72	0.76	4.42	2.85	7.03	1.27
	Industrial Sector	1123389	1187871	1202919	1286637	1511403	1609841	1665794
	Growth (%)		5.74	1.27	6.96	17.47	6.51	3.48
	Services Sectors	3049845	3205220	3318019	3508438	3734679	4038968	4370324
	Growth (%)		5.09	3.52	5.74	6.45	8.15	8.20
	Total (GVA)	5706941	5915707	6055106	6396993	6893634	7412101	7821886
Growth (%)		3.66	2.36	5.65	7.76	7.52	5.53	

Table 19: Backward Series of Gross Value Added (GVA) (2005-06=100) (Rs. Million)

S. No	Industry	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
A.	Agricultural Sector (1 to 4)	1533707	1522616	1534168	1601918	1647551	1763292	1785768
-	1. Crops (i+ii+iii)	728144	674612	656844	688233	702670	797558	770828
-	Crop (i + ii)	674706	622897	605452	638181	653087	732717	710356
	i) Important Crops	413529	375550	365420	385035	392617	462326	452759
	ii) Other Crops	261177	247347	240032	253146	260470	270391	257597
	iii) Cotton Ginning	53438	51715	51392	50052	49583	64841	60472
	2. Livestock	718984	758335	794665	824422	856646	894348	936498
	3. Forestry	47010	51269	48993	54435	52716	35658	35279
	4. Fishing	39569	38400	33666	34828	35519	35728	43163
B.	Industrial Sector (1 to 4)	1123389	1187871	1202919	1286637	1511403	1609841	1665794
	1. Mining and Quarrying	192658	204673	219954	243541	296588	249636	258628
	2. Manufacturing (i+ii+iii)	603842	667208	694364	744950	866972	1005914	1100400
	i) Large Scale	485202	541868	561874	604803	718695	848943	933139
	ii) Small Scale	58878	63300	68054	73165	78660	84567	91922
	iii) Slaughtering	59762	62039	64436	66982	69618	72404	75339
	3 Electricity generation & distribution and Gas distribution	189946	171861	145246	148891	208819	191943	116820
	4. Construction	136943	144129	143355	149255	139024	162348	189946
	Commodity Producing Sectors (A+B)	2657096	2710487	2737087	2888555	3158954	3373133	3451562
C.	Services Sectors (1 to 6)	3049845	3205220	3318019	3508438	3734679	4038968	4370324
	1. Wholesale & Retail trade	963832	1021145	1045916	1115503	1234956	1407619	1541563
	2. Transport, Storage & Communication	777376	819237	829927	866381	891117	928947	970028
	3. Finance & Insurance	157924	168431	173234	185309	209602	243563	282920
	4. Housing Services (OD)	411458	426933	441883	456330	472342	488921	506081
	5. General Government Services	314369	321514	343739	370484	382762	385699	425218
	6. Other Private Services	424886	447960	483320	514431	543900	584219	644514
D.	GDP {Total of GVA at bp (A+B+C)}	5706941	5915707	6055106	6396993	6893634	7412101	7821886

2. Limitations

According to Escosura (2006, 2014), the most recent benchmark provides a higher GDP level for the overlapping year, as its coverage of economic activities is wider. Thus, the backwards projection of the new benchmark GDP level with the available growth rates computed at the previous benchmark's relative prices implies a systematic upwards revision of GDP levels for earlier years. This phenomena is clearly depicted in tables 18 and 19

Table 20: Comparison of Growth Rates of Gross Value Added (GVA) 1999-2000 base and 2005-06 base

S. No	Industry	1999-2000 base						2005-06 base					
		2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
A.	Agricultural Sector (1 to 4)	-2.18	0.10	4.15	2.43	6.48	6.30	-0.72	0.76	4.42	2.85	7.03	1.27
	1. Crops (i+ii+iii)							-7.35	-2.63	4.78	2.10	13.50	-3.35
	Crop (i + ii)	-8.06	-2.79	5.46	2.32	13.27	-2.85	-7.68	-2.80	5.41	2.34	12.19	-3.05
	i) Important Crops	-9.86	-2.45	6.84	1.73	17.73	-3.90	-9.18	-2.70	5.37	1.97	17.75	-2.07
	ii) Other Crops	-3.19	-3.66	1.90	3.91	1.51	0.40	-5.30	-2.96	5.46	2.89	3.81	-4.73
	iii) Cotton Ginning							-3.22	-0.62	-2.61	-0.94	30.77	-6.74
	2. Livestock	3.82	3.67	2.57	2.88	2.34	15.80	5.47	4.79	3.74	3.91	4.40	4.71
	3. Forestry	9.06	-4.44	11.11	-3.16	-32.36	-1.10	9.06	-4.44	11.11	-3.16	-32.36	-1.06
	4. Fishing	-2.95	-12.33	3.45	1.99	0.59	20.80	-2.95	-12.33	3.45	1.98	0.59	20.81
B.	Industrial Sector (1 to 4)	4.13	2.70	4.24	16.26	12.12	4.10	5.74	1.27	6.96	17.47	6.51	3.48
	1. Mining and Quarrying	5.52	5.73	6.62	15.61	10.00	4.60	6.24	7.47	10.72	21.78	-15.83	3.60
	2. Manufacturing (i+ii+iii)	9.29	4.46	6.90	14.01	15.51	8.70	10.49	4.07	7.29	16.38	16.03	9.39
	i) Large Scale	10.95	3.51	7.23	18.15	19.92	8.30	11.68	3.69	7.64	18.83	18.12	9.92
	ii) Small Scale	7.51	7.51	7.51	7.51	7.51	8.70	7.51	7.51	7.51	7.51	7.51	8.70
	iii) Slaughtering	2.95	3.05	2.94	2.41	2.41	12.38	3.81	3.86	3.95	3.94	4.00	4.05
	3 Electricity generation & distribution and Gas distribution	-13.72	-7.01	-11.69	56.75	-5.72	-26.60	-9.52	-15.49	2.51	40.25	-8.08	-39.14
	4. Construction	0.53	1.59	3.98	-10.75	18.56	10.20	5.25	-0.54	4.12	-6.86	16.78	17.00
	Commodity Producing Sectors (A+B)	0.81	1.37	4.19	9.29	9.45	5.10	2.01	0.98	5.53	9.36	6.78	2.33
C.	Services Sectors (1 to 6)	3.09	4.76	5.22	5.84	8.49	6.50	5.09	3.52	5.74	6.45	8.15	8.20
	1. Wholesale & Retail trade	4.46	2.78	6.00	8.34	12.00	-2.40	5.95	2.43	6.65	10.71	13.98	9.52
	2. Transport, Storage & Communication	5.29	1.21	4.27	3.53	3.45	4.00	5.38	1.30	4.39	2.86	4.25	4.42
	3. Finance & Insurance	-15.10	17.17	-1.28	8.98	30.85	42.90	6.65	2.85	6.97	13.11	16.20	16.16
	4. Housing Services (OD)	3.77	3.50	3.26	3.51	3.51	3.50	3.76	3.50	3.27	3.51	3.51	3.51
	5. General Government Services	2.21	6.85	7.72	3.15	0.56	10.10	2.27	6.91	7.78	3.31	0.77	10.25
	6. Other Private Services	5.56	7.91	6.22	5.41	6.59	9.90	5.43	7.89	6.44	5.73	7.41	10.32
D.	GDP {Total of GVA at bp (A+B+C)}	1.97	3.11	4.73	7.48	8.96	5.80	3.66	2.36	5.65	7.76	7.52	5.53

3. FISIM Adjusted Backward Series

The incorporation of FISIM is an important conceptual and methodological improvement in the value added estimates being produced by the PBS on 2005-06 base. To facilitate the comparison for a longer time period, FISIM adjusted value added estimates for the backward series for the years 1999-2000 to 2005-06 have also been produced. For this purpose, the same industry-wise yearly growth rates, which were used for the calculation of estimates for various industries as described in chapter 2, were applied to the base year figures of FISIM-adjusted value added estimates of respective industries. Resultantly, a comparable backward series comprising FISIM adjusted estimates was obtained and same is presented in the table 21 below. Table 22 compares the growth rates of the original and backward series after the FISIM adjustment. Figure 11 shows the original and the backward series growth rates while the figure 12 shows the systematic upward revision of the GDP levels.

S. No	Industry	2005-06 base (Rs. Million)						2005-06 (Fisim Adj.)
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	
A.	Agricultural Sector (1 to 4)	1524840	1513844	1525297	1592631	1637993	1753002	1775346
	1. Crops (i+ii+iii)	723902	670728	653067	684252	698603	792884	766274
	Crop (i + ii)	670464	619012	601674	634200	649020	728043	705802
	i) Important Crops	410119	372453	362406	381860	389379	458513	449025
	ii) Other Crops	260346	246560	239268	252340	259641	269530	256777
	iii) Cotton Ginning	53438	51715	51392	50052	49583	64841	60472
	2. Livestock	714642	753755	789866	819443	851472	888947	930842
	3. Forestry	46728	50961	48699	54108	52399	35444	35067
	4. Fishing	39569	38400	33666	34828	35519	35728	43163
B.	Industrial Sector (1 to 4)	1087468	1150635	1166111	1247508	1464252	1559566	1616157
	1. Mining and Quarrying	189467	201284	216311	239508	291676	245502	254345
	2. Manufacturing (i+ii+iii)	584594	645940	672234	721209	839339	973847	1065323
	i) Large Scale	469699	524554	543921	585478	695731	821817	903323
	ii) Small Scale	57081	61368	65977	70932	76259	81986	89116
	iii) Slaughtering	57815	60017	62336	64799	67349	70045	72884
	3. Electricity generation & distribution and Gas distri.	179034	161988	136902	140338	196823	180916	110109
	4. Construction	134372	141424	140664	146453	136414	159300	186380
	Commodity Producing Sectors (A+B)	2612308	2664479	2691408	2840138	3102245	3312568	3391503
C.	Services Sectors (1 to 6)	3018414	3172044	3283529	3471922	3695703	3996484	4324274
	1. Wholesale & Retail trade	952268	1008893	1033367	1102119	1220139	1390730	1523067
	2. Transport, Storage & Comm.	768938	810345	820919	856977	881444	918864	959499
	3. Finance & Insurance	157923	168430	173233	185308	209601	243562	282919
	4. Housing Services (OD)	410370	425804	440714	455123	471094	487629	504743
	5. General Government Services	314369	321514	343739	370484	382762	385699	425218
	6. Other Private Services	414545	437058	471557	501911	530663	570001	628828
D.	GDP {Total of GVA at bp (A+B+C)}	5630722	5836522	5974937	6312061	6797948	7309052	7715777

Table 22: Comparison of Growth Rates of Gross Value Added (GVA) 1999-2000 base and 2005-06 base

S. No	Industry	1999-2000 base						2005-06 base					
		2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
A.	Agricultural Sector (1 to 4)	-2.18	0.10	4.15	2.43	6.48	6.30	-0.72	0.76	4.41	2.85	7.02	1.27
	1. Crops (i+ii+iii)							-7.35	-2.63	4.78	2.10	13.50	-3.36
	Crop (i + ii)	-8.06	-2.79	5.46	2.32	13.27	-2.85	-7.67	-2.80	5.41	2.34	12.18	-3.05
	i) Important Crops	-9.86	-2.45	6.84	1.73	17.73	-3.90	-9.18	-2.70	5.37	1.97	17.75	-2.07
	ii) Other Crops	-3.19	-3.66	1.90	3.91	1.51	0.40	-5.30	-2.96	5.46	2.89	3.81	-4.73
	iii) Cotton Ginning							-3.22	-0.62	-2.61	-0.94	30.77	-6.74
	2. Livestock	3.82	3.67	2.57	2.88	2.34	15.80	5.47	4.79	3.74	3.91	4.40	4.71
	3. Forestry	9.06	-4.44	11.11	-3.16	-32.36	-1.10	9.06	-4.44	11.11	-3.16	-32.36	-1.06
	4. Fishing	-2.95	-12.33	3.45	1.99	0.59	20.80	-2.95	-12.33	3.45	1.98	0.59	20.81
B.	Industrial Sector (1 to 4)	4.13	2.70	4.24	16.26	12.12	4.10	5.81	1.34	6.98	17.37	6.51	3.63
	1. Mining and Quarrying	5.52	5.73	6.62	15.61	10.00	4.60	6.24	7.47	10.72	21.78	-15.83	3.60
	2. Manufacturing (i+ii+iii)	9.29	4.46	6.90	14.01	15.51	8.70	10.49	4.07	7.29	16.38	16.03	9.39
	i) Large Scale	10.95	3.51	7.23	18.15	19.92	8.30	11.68	3.69	7.64	18.83	18.12	9.92
	ii) Small Scale	7.51	7.51	7.51	7.51	7.51	8.70	7.51	7.51	7.51	7.51	7.51	8.70
	iii) Slaughtering	2.95	3.05	2.94	2.41	2.41	12.38	3.81	3.86	3.95	3.94	4.00	4.05
	3 Electricity generation & distribution and Gas distribution	-13.72	-7.01	-11.69	56.75	-5.72	-26.60	-9.52	-15.49	2.51	40.25	-8.08	-39.14
	4. Construction	0.53	1.59	3.98	-10.75	18.56	10.20	5.25	-0.54	4.12	-6.86	16.78	17.00
	Commodity Producing Sectors (A+B)	0.81	1.37	4.19	9.29	9.45	5.10	2.00	1.01	5.53	9.23	6.78	2.38
C.	Services Sectors (1 to 6)	3.09	4.76	5.22	5.84	8.49	6.50	5.09	3.51	5.74	6.45	8.14	8.20
	1. Wholesale & Retail trade	4.46	2.78	6.00	8.34	12.00	-2.40	5.95	2.43	6.65	10.71	13.98	9.52
	2. Transport, Storage & Comm.	5.29	1.21	4.27	3.53	3.45	4.00	5.38	1.30	4.39	2.86	4.25	4.42
	3. Finance & Insurance	-15.10	17.17	-1.28	8.98	30.85	42.90	6.65	2.85	6.97	13.11	16.20	16.16
	4. Housing Services (OD)	3.77	3.50	3.26	3.51	3.51	3.50	3.76	3.50	3.27	3.51	3.51	3.51
	5. General Government Services	2.21	6.85	7.72	3.15	0.56	10.10	2.27	6.91	7.78	3.31	0.77	10.25
	6. Other Private Services	5.56	7.91	6.22	5.41	6.59	9.90	5.43	7.89	6.44	5.73	7.41	10.32
D.	GDP {Total of GVA at bp (A+B+C)}	1.97	3.11	4.73	7.48	8.96	5.80	3.65	2.37	5.64	7.70	7.52	5.56

Figure 11: Gross Value Added, Growth Rates (%)

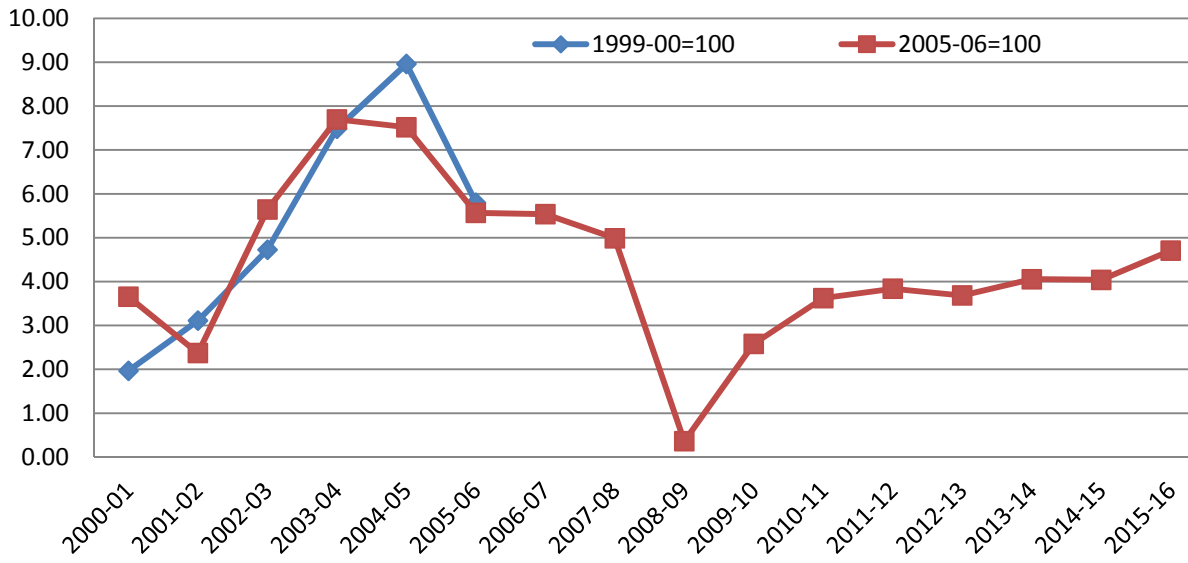
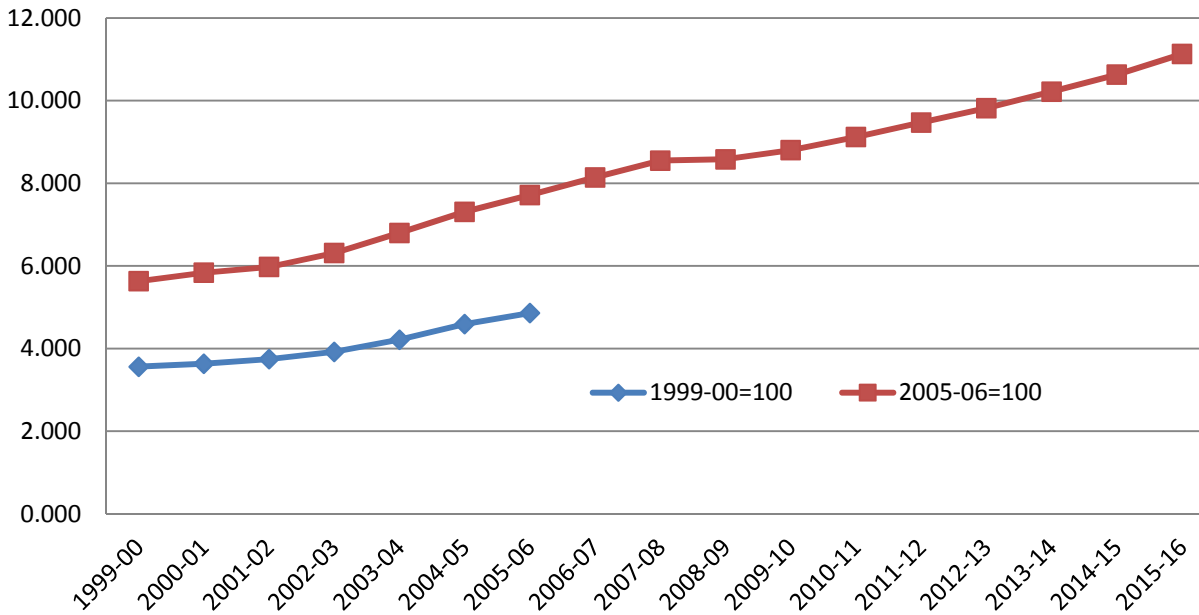


Figure 12: GVA (Trillion Rs.)



CHAPTER 4

Backward Series of Gross Value Added (GVA) at Current Prices

1. Introduction

The national accounts aggregates at current prices are equally important like those at constant prices. Whereas the constant estimates are used to make comparisons in real terms, the current estimates are used to make the comparison for accounting period in question. More specifically, compilation of GNI per capita and various components of aggregate demand like household and government final consumption expenditure, gross capital formation and external trade are generally analyzed at current prices. So, keeping in view the requirement of data users, PBS has also compiled backward series of value added at current prices. The detail of compilation methodology at broader industry level as well as at activity levels, where required, is given in following paragraphs:-

2. Industry-Wise Methodology

A: AGRICULTURE

A-I: Crops

In old base crops were divided in two groups' i.e. ., Major crops and Minor crops. Where Major crops included 12 crops namely Wheat, Maize, Rice, Sugarcane, Cotton, Gram, Barley, Bajra, Jowar, Sesamum, Rape seed & mustard and Tobacco and rest of the crops are included in minor crops. While in new base the two groups are converted to important crops and other crops. Where Important crops include 5 crops namely Wheat, Maize, Rice, Sugarcane and Cotton with their byproducts and all remaining crops are included in other crops. Backward series of crops at current prices is extracted in the following steps:

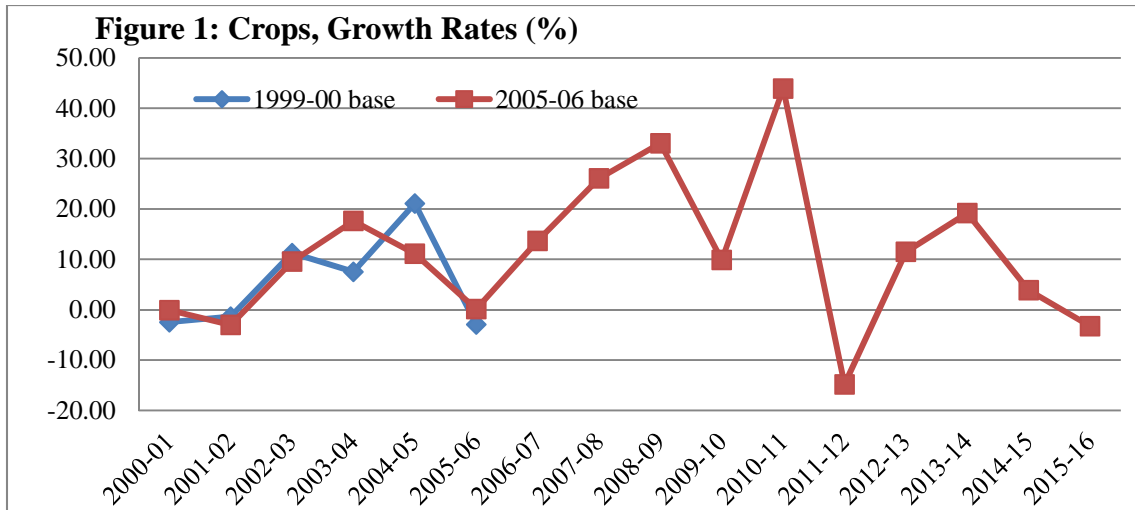
1. Output of Major crops and Minor crops published in 1999-00 base at constant prices have been grouped according to 2005-06 base methodology and growth rates are obtained for each crop (Wheat, Maize, rice, Sugarcane and Cotton) in important crops and by sub groups i.e., Gram, Barley, Jowar, Bajra, pulses, vegetables, fruits, fodder green, spices, oil seeds, Rape & Mustered, Tobacco, and Sesamum in other crops. Inputs (seed, fertilizers, pesticides, water, ploughing & planking, transport charges and wastage) are taken as in 1999-00 with some adjustments in seed, ploughing & planking and wastage for important crops and other crops and growth rates are obtained.
2. Growth rates obtained in step 1 are used to derive each component of output as well as inputs to extract backward series from 2005-06 to 1999-00 at constant prices and GVA is taken as value of output *less* inputs at constant prices.
3. Backward series of output as well as inputs component wise obtained in step 2 is then inflated by applying their Whole Sale Price Indices (WPI) deflators in order to get output and inputs at current prices. WPIs are taken from Price Section and Pakistan statistical year book (2010) are used to develop Inflaters (2005-06 base) for each component of output as well as inputs of crops for the years 1999-00 to 2005-06. Hence GVA of back

series of crops (Important & other Crops) at current prices is then taken as output minus inputs separately.

- Two new groups are added in 2005-06 base which were not the part of 1999-00 base series. These are Cotton ginning and own account capital formation (Miscellaneous GVA). Cotton Ginning is extracted backward by using the growth of cotton production at constant prices and this constant series is then inflated by applying WPI deflator of cotton. Miscellaneous GVA is extrapolated backward by a fix growth of 0.8% at constant prices and growth of aggregate of GVA of Important crops, other crops and Cotton ginning at current prices is used to obtain backward series of Miscell. GVA at current prices.

Hence, backward series of GVA of important crops, other crops, cotton ginning and miscellaneous is aggregated to obtain the GVA of crops at current prices. The comparison of value added for crops at current prices is presented in table 1 and figure 1. The GVA of important crops at current prices has registered a growth of 16.0% during 2002-03 due to rice (15% growth each in production and WPI deflator) and WPI cotton (21.0%). In 2003-04, the growth rate of 22.3% in important crops is due to WPI wheat (18.6%), rice (8% growth in production and 9.8% growth in deflator) and WPI cotton (30.8%). During 2004-05, the growth of important crops at constant prices was 17.8% whereas it is only 8.6% at current prices primarily due to WPI cotton (-34.1%). A slight improvement in growth of important crops at current prices (-1.8%) as compared to growth at constant prices (-2.1%) has been observed due to WPI sugarcane (28.6%). The other crops has registered a growth of 20.5% during 2004-05 which is due to WPI deflator used in vegetables (24.2%), increase in production of fruits (14%), WPI potatoes (91.9%) and WPI tomatoes (47.4%). The double digit growth in cotton ginning during 2002-03 (14.9%) and 2003-04 (26.4%) is due to deflators (21.0% in 2002-03 and 30.8% in 2003-04). A negative growth in cotton ginning has been observed at current prices during 2004-05 due to WPI cotton (-34.1%) in contrast to constant growth which was 30.8%.

Year	Current GVA 1999-2000 base						Current GVA 2005-2006 base							
	Major Crops	GR	Minor Crops	GR	Total (Crops)	GR	Important Crops	GR	Other Crops	GR	Cotton Ginning	GR	Total Crops	GR
1999-00	342200		125679		467879		325520		187157		42620		555297	
2000-01	325579	-4.86	130679	3.98	456258	-2.48	317657	-2.42	190135	1.59	46966	10.20	554758	-0.10
2001-02	316857	-2.68	133136	1.88	449993	-1.37	299172	-5.82	195659	2.91	43064	-8.31	537895	-3.04
2002-03	370117	16.81	130450	-2.02	500567	11.24	347134	16.03	192649	-1.54	49470	14.88	589253	9.55
2003-04	411836	11.27	126372	-3.13	538208	7.52	424438	22.27	206090	6.98	62513	26.37	693041	17.61
2004-05	497556	20.81	154218	22.03	651774	21.10	461032	8.62	248301	20.48	60650	-2.98	769983	11.10
2005-06	464276	-6.69	168461	9.24	632737	-2.92	452759	-1.79	257597	3.74	60472	-0.29	770828	0.11



A-II: Livestock

In 1999-00, GVA of livestock at current prices was used to be obtained by applying a single inflator (Producer Price Index for fresh milk) to the constant GVA but in 2005-06 base each component of output as well as input is inflated separately in order to get value added at current prices. Same (2005-06 base) approach has been applied to extract backward series of livestock.

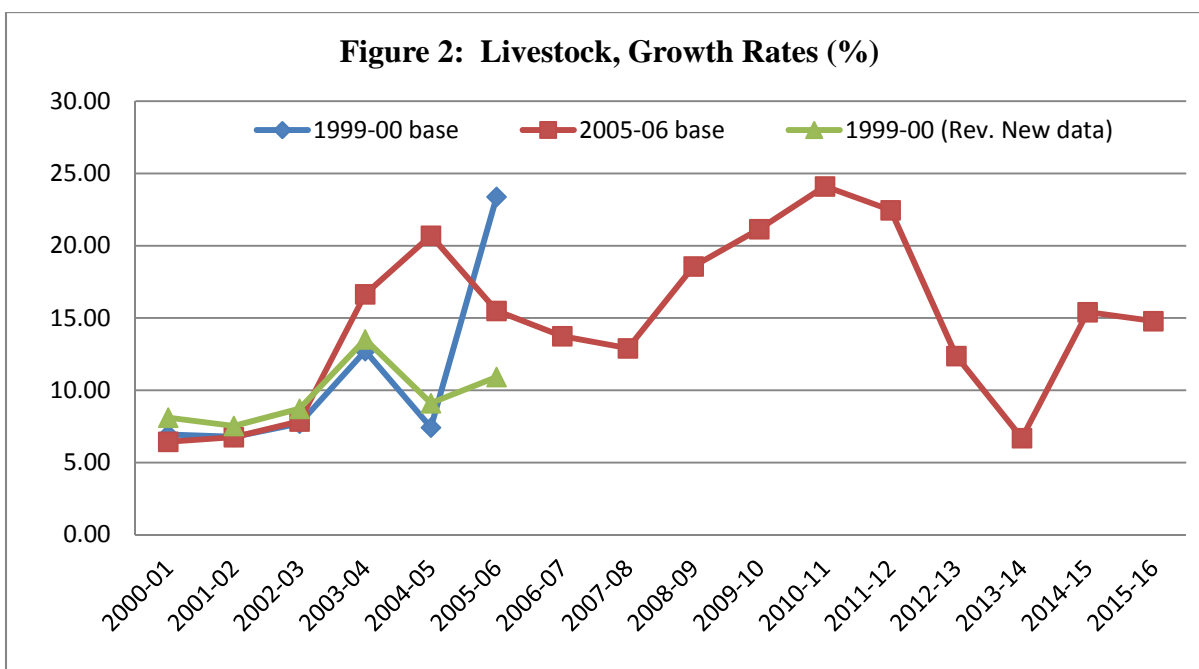
The backward series of output of livestock at constant prices was obtained separately for each component including natural growth & regeneration, sold for slaughtering, livestock products and poultry & poultry products. Therefore these components have been inflated separately by applying specifically compiled Wholesale Price Indices (WPI) prepared on 2005-06 base in order to get backward series of output of livestock. Same approach has been adapted to inflate components of intermediate consumption (IC) including poultry inputs & other inputs. The specific details are as under:-

- For natural growth and regeneration component, the combined WPI for meat and milk has been applied while the components of sold for slaughtering and livestock products have been inflated by using WPI meat and milk respectively.
- For the components of poultry & poultry products, WPI chicken and eggs have been applied separately. The aforementioned four components have been aggregated in order to obtain the total value of output for the backward series at current prices.
- Components of backward series of IC have also been inflated separately. The IC components of green fodders have been taken from the current value calculated in crops. Similar procedure has been adopted for dry fodders. The other inputs have been inflated by applying WPI milk whereas poultry inputs have been inflated by applying WPI chicken. These components form the total IC at current prices for the livestock industry.

Then backward series of value added of livestock at current prices is simply the difference of aggregated output and inputs. The backward series of the component “other value added” comprising of hunting & animal husbandry is originally taken at current prices and thus has been included in the value added of livestock to get overall GVA of this industry. For comparison of the GVA of livestock at current prices in 1999-2000 base and 2005-06 base, table 2 and figure 2 are referred. The overall GVA of livestock at current prices has registered a double digit growth during 2003-04, 2004-05 and 2005-06, which is primarily due to WPI deflators used in the output and inputs e.g. WPI milk & meat (15.9% in 2004-05 and 10.2% in 2005-06), WPI meat (23.0% in 2004-05 and 9.9% in 2005-06), WPI milk (11.3% in 2004-05 and 10.3% in 2005-06), WPI chicken (13.5% in 2004-05), and WPI eggs (24.8% in 2004-05) etc.

Table 2: Comparison of GVA of Livestock for 1999-2000 base and 2005-06 base (Rs. Mill)

Year	Current GVA 1999-2000 base		New		Livestock GVA 2005-2006 base			
	Livestock	G R	Livestock	G R	Constant	G R	Current	G R
1999-00	417120		464208		718984		469882	
2000-01	446058	6.94	501857	8.11	758335	5.47	500121	6.44
2001-02	476310	6.78	539662	7.53	794665	4.79	533933	6.76
2002-03	512976	7.70	586749	8.73	824422	3.74	575845	7.85
2003-04	578218	12.72	666097	13.52	856646	3.91	671742	16.65
2004-05	621170	7.43	726782	9.11	894348	4.40	810811	20.70
2005-06	766448	23.39	806151	10.92	936498	4.71	936498	15.50



A-III: Forestry

The output of forestry is comprised of timber, firewood and other products (resin, gums, mazri & silk worm etc.) whereas input is taken as 25% of output of timber and firewood and thus GVA is simply the difference of output and inputs. Components and compilation methodology of GVA is same in 2005-06 base as was in 1999-00 base.

In 1999-00 base constant GVA of forestry was used to be inflated by applying a combined PPI deflator for timber and firewood in order to get GVA at current prices, whereas in 2005-06 base WPI for firewood is applied in order to obtain GVA at current prices.

In the compilation of backward series of GVA of forestry at current prices, WPI for firewood has been applied. The comparison of GVA of forestry at current prices in 1999-2000 base and 2005-06 base is presented in table 3. Value added in forestry industry at current prices has decreased by 25% in 2004-05, which is due to decrease in production of timber (31.4%). Conversely, a positive growth of 17.7% has been observed in 2005-06 due to higher growth in deflator i.e. WPI firewood (18.9%).

Year	Current GVA 1999-2000 base		Forestry GVA 2005-2006 base			
	Forestry	G R	Constant	G R	Current	G R
1999-00	23447		47010		29947	
2000-01	26439	12.76	51269	9.06	33679	12.46
2001-02	25611	-3.13	48993	-4.44	32612	-3.17
2002-03	29148	13.81	54435	11.11	37167	13.97
2003-04	31597	8.40	52716	-3.16	39966	7.53
2004-05	23800	-24.68	35658	-32.36	29969	-25.01
2005-06	27545	15.74	35279	-1.06	35279	17.72

A-IV: Fishing

The output of fishing in 2005-06 base is comprised of marine and inland fish whereas inputs of marine and inland components are taken as 40% and 30% of their respective outputs. Hence GVA is calculated separately for marine and inland components in order to obtain over all GVA of fishing industry. Components of GVA are same in 2005-06 base as were in 1999-00 base except input-output ratios.

In 1999-00 base, GVA of fishing at current prices was used to be calculated by applying per unit (Kg) prices obtained from the figures of quantity and value supplied by the sources i.e. Marine Fisheries Department Karachi on annual basis. In 2005-06 base, WPI fish has been applied to inflate the overall constant GVA of fishing in order to obtain the GVA at current prices.

For backward series of fishing at current prices, specifically compiled WPI fish with 2005-06 base, has been used. For comparison of the GVA of fishing at current prices in 1999-

2000 base and 2005-06 base, table 4 is referred. The growth of value added of fishing industry at current prices in 1999-2000 base during 2005-06 was 74.3% due to incorporation of results of the study on fishing whereas value added in 2005-06 base has increased by 22.9% due to increase in production of inland fishing (25.6%).

Year	Current GVA 1999-2000 base		GVA 2005-2006 base			
	Fishing	G R	Constant	G R	Current	G R
1999-00	15163		39569		38213	
2000-01	16546	9.12	38400	-2.95	37684	-1.38
2001-02	16377	-1.02	33666	-12.33	36894	-2.10
2002-03	16625	1.51	34828	3.45	33758	-8.50
2003-04	16728	0.62	35519	1.98	35707	5.77
2004-05	17490	4.56	35728	0.59	35111	-1.67
2005-06	30492	74.34	43163	20.81	43163	22.93

B: INDUSTRY SECTOR

B-I: Mining and Quarrying

The components of GVA of mining & quarrying (M&Q) are natural gas, crude oil, coal, other minerals (limestone, marble iron ore etc.), surface minerals, crushing of stone, allied services and exploration services. For current backward series of M & Q, above mentioned components of GVA in backward series at constant prices have been inflated by applying appropriate WPI deflators (converted to 2005-06 base). The components-wise detail is an under:-

- The backward series of GVA of natural gas at current prices has been obtained by applying WPI Gas to constant backward component.
- The backward series of GVA of crude oil has been compiled by applying WPI crude oil, which was derived as combination of diesel oil, mobil oil, motor spirit, furnace oil and kerosene oil.
- Similarly, WPI coal has been used for obtaining the backward series of coal at current prices whereas for all other components, WPI crude oil has been used as an inflator.
- Exploration services have been compiled directly because current data was available for all the years.

The final backward series of GVA of M&Q at current prices is the sum of all the above mentioned components. For comparison of GVA of M&Q at current prices in 1999-2000 base and 2005-06 base is presented in table 5 and figure 3 are referred.

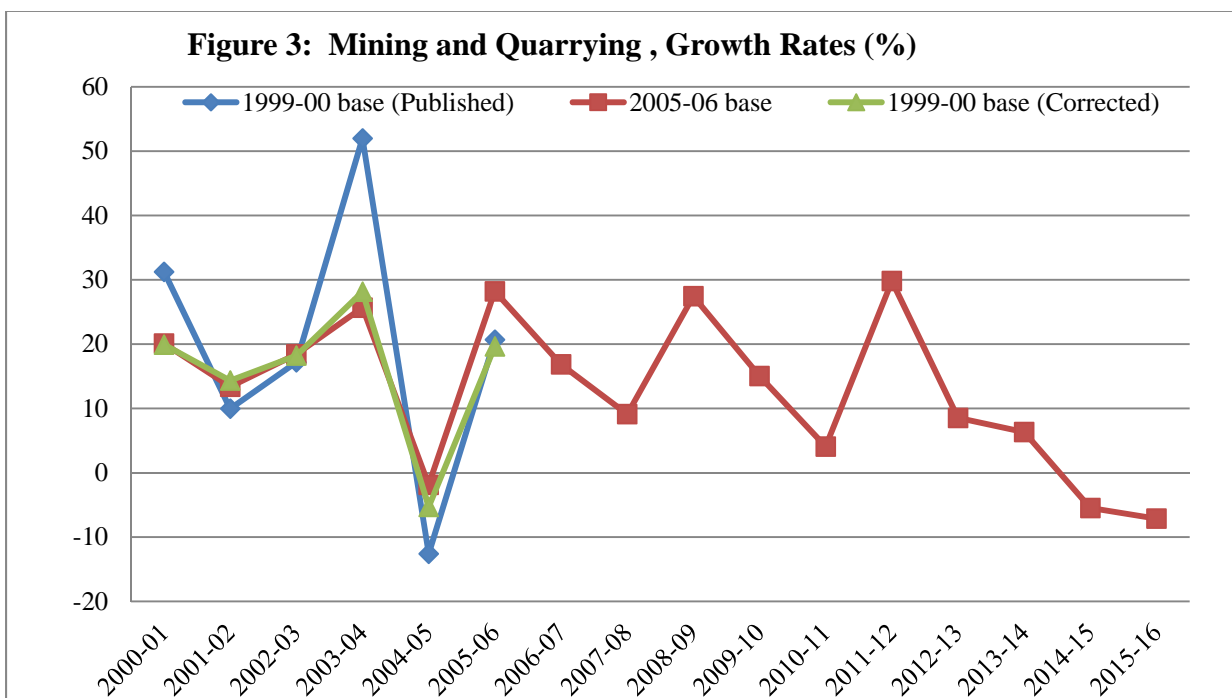
The value added of M&Q at constant prices from 1999-2000 to 2003-04 was revised in the 85th meeting of the National Accounts Committee held on May 24, 2006 on account of exclusion of exploration costs from the value added as well as correction of natural gas figures which were mistakenly treated in millions instead of billions. These corrections were incorporated in the value added at constant prices but not in the value added at current prices resulting in extreme growth rates during 2003-04 (52%) and 2004-05 (-12.6%). The corrected

GVA at current prices in 1999-2000 base along with revised growth rates is given in table 5 and figure 3. Consequently, more stable and comparable pattern of growth in GVA has been emerged in 2005-06 base and 1999-2000 base (Figure 3).

In the estimates of backward series of GVA at current prices, natural gas and crude oil, having 55.6 % and 19.1% share in the value added in 2005-06 respectively, are the major determinants of double digit growth in 2005-06 base estimates. WPI deflators have also contributed towards improvement in the growth rates at current prices e.g. natural gas (22.5% in 2000-01, 9.5% in 2004-05 and 19.3% in 2005-06) and crude oil (20.7% in 2004-05 and 30.5% in 2005-06).

Table 5: Comparison of GVA of Mining and Quarrying for 1999-2000 base and 2005-06 base (Rs. Million)

Year	Current GVA 1999-2000 base				Mining and Quarrying GVA 2005-2006 base			
	Original		New		Constant	GR.	Current	GR.
	M&Q	GR.	M&Q	GR.				
1999-00	81052		100296		192658		101502	
2000-01	106370	31.24	120277	19.92	204673	6.24	121887	20.08
2001-02	116952	9.95	137516	14.33	219954	7.47	138186	13.37
2002-03	137044	17.18	162558	18.21	243541	10.72	163642	18.42
2003-04	208290	51.99	208290	28.13	296588	21.78	205630	25.66
2004-05	182051	-12.60	197243	-5.30	249636	-15.83	201738	-1.89
2005-06	219682	20.67	235955	19.63	258628	3.60	258628	28.20



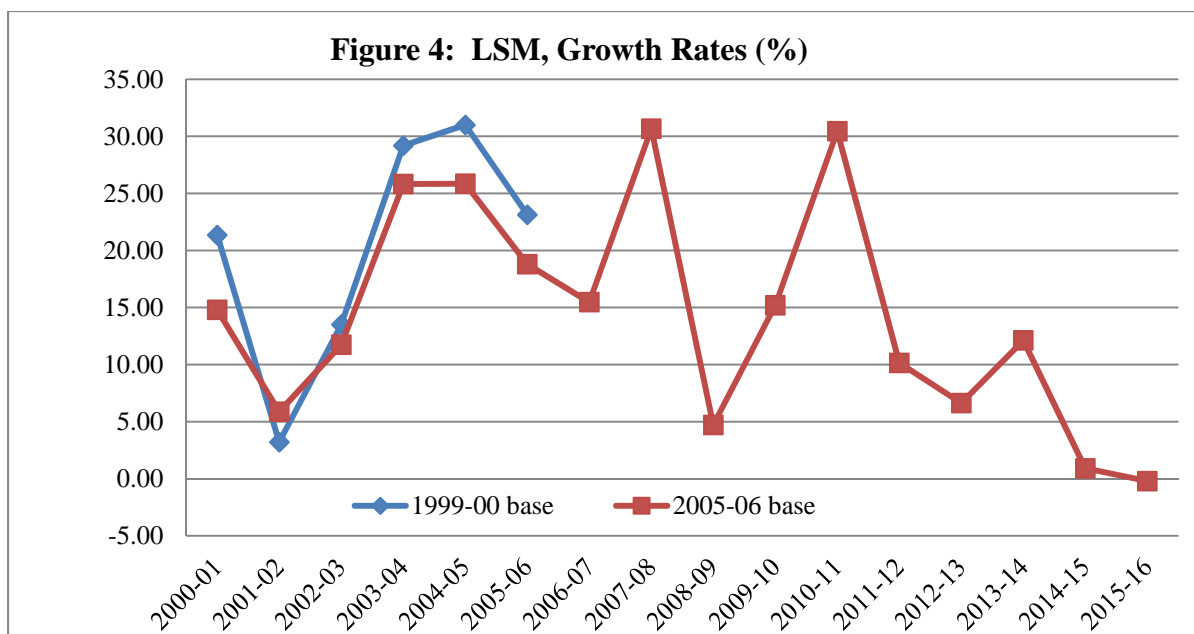
B-II: Manufacturing

a) Large Scale Manufacturing Industries (LSMI)

The Gross Value Added (GVA) of Large Scale Manufacturing (LSM) at constant prices is used to be converted into current prices by applying the specifically developed Producer's Price Index (PPI) comprising of 50 items having total weight of 53.6524 with 1999-2000 as base year. PPI is being compiled in the PBS Karachi office in comparison to Consumer Price Index (CPI) and Wholesale Price Index (WPI) which are compiled at PBS Headquarters Islamabad. But due to old weights and non-existence of appropriate data collection mechanism from the producers, the PPI is subject to wider fluctuations, sometimes too difficult to explain, interpret and defend.

Therefore, in order to compile the backward series of GVA at current prices for LSM, specifically compiled Wholesale Price Index (WPI) has been used. So, keeping in view product structure of LSM, 83 items from the WPI (2007-08 base) with total weight of 58.7217 have been selected. In this regard, item-wise data of WPI on 2000-01 base and 1990-91 base for the period in question was obtained from the Statistical Year Book 2009, an annual regular publication of the PBS. The indices of 83 selected items on 2007-08 base were extrapolated backward by applying the growth rates of comparable items from 2000-01 base and 1990-91 base. Then weights of the WPI (2007-08 base) were used to compile the weighted average index to be used as deflator in LSM and same has been used in the compilation of current backward series of LSM. The comparison of GVA of LSM at current prices on 1999-2000 base and 2005-06 base is presented in the table 6 and figure 4. The value added growth at current prices in 1999-2000 base and 2005-06 base is roughly comparable for all the years. The slight difference is due to exclusion of cotton ginning in 2005-06 base estimates. The current growth of 18.8% in 2005-06 is due to WPI deflators (8.1%) e.g. refined sugar (41.7%), tobacco products (11.3%), leather without hairs (17.7%), motor spirit (34.6%), diesel oil (34.2%), kerosene oil (26.1%), furnace oil (49.0%), fertilizers (10.8%), auto tyres (14.7%), cement (17.0%) and electrical wires (16.0%).

Year	Current GVA 1999-2000 base		GVA 2005-2006 base				
	GVA	GR	Constant	GR	Deflator	Current	GR
1999-00	338602		485202		75.28	365258	
2000-01	410879	21.35	541868	11.68	77.38	419324	14.80
2001-02	424089	3.22	561874	3.69	79.01	443951	5.87
2002-03	481374	13.51	604803	7.64	82.03	496094	11.75
2003-04	621899	29.19	718695	18.83	86.85	624184	25.82
2004-05	814657	31.00	848943	18.12	92.53	785501	25.84
2005-06	1003062	23.13	933139	9.92	100.00	933139	18.80



b) Small Scale Manufacturing Industries (SSMI)

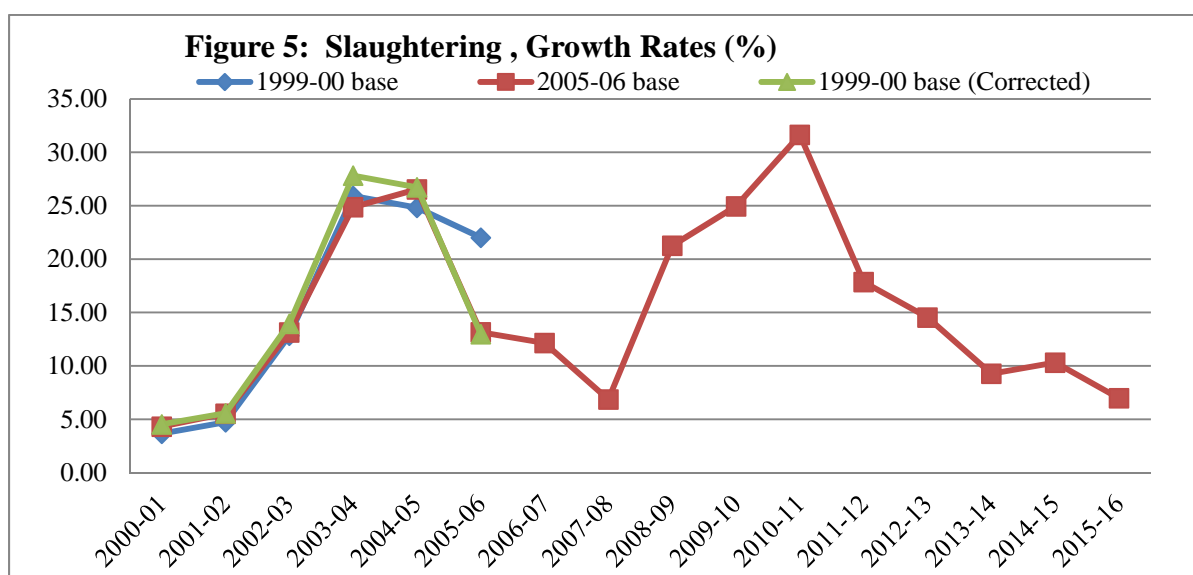
The GVA of Small Scale Manufacturing (SSM) at constant prices is used to be converted into current prices by applying the specifically developed Producer's Price Index (PPI) comprising of 29 items having total weight of 12.2269 with 1999-2000 as base year. The same problems/difficulties as encountered in LSM sector are also faced in SSM sector. The method used for the compilation of WPI deflators for LSM, has also been applied for SSM but with 25 commodities, relevant to SSM products, having total weight of 16.4643 and same has been applied for the compilation of backward estimates of value added. The comparison of GVA of SSM at current prices on 1999-2000 base and 2005-06 base is presented in the table 7. SSM has registered a growth of 19.1% in 2003-04 due to WPI deflator (10.7%) e.g. cotton yarn (23.4%), wheat flour (16.2%) and other cereal flour (18.8%). A higher growth in WPI items such as tobacco products (11.3%) and leather without hairs (17.7%) has contributed in growth of 11.5% in 2005-06.

Year	Current GVA 1999-2000 base		SSM GVA 2005-2006 base				
	GVA SSM	G R	Constant	G R	Deflator	Current	G R
1999-00	132369		58878		82.95	48842	
2000-01	143463	8.38	63300	7.51	84.81	53687	9.92
2001-02	161734	12.74	68054	7.51	85.42	58129	8.27
2002-03	180558	11.64	73165	7.51	87.66	64137	10.34
2003-04	200626	11.11	78660	7.51	97.08	76362	19.06
2004-05	222176	10.74	84567	7.51	97.51	82459	7.98
2005-06	245962	10.71	91922	8.70	100.00	91922	11.48

c) Slaughtering

Components of GVA of slaughtering are meat and other products. Meat is also combination of poultry meat and other. Similarly, IC is comprised of live poultry and other live animals. For backward series of GVA at current prices, a combined WPI inflator comprising of chicken and meat with 2005-06 as base, has been applied to the value added estimates at constant prices. The comparison of GVA of slaughtering at current prices in 1999-2000 base and 2005-06 base is presented in the table 8 and figure 5. The data changes have also been incorporated and both value added estimates and growth rates have been re-determined and are presented under the “New” column. A double digit growth in current value added of slaughtering has been noted at current prices from 2002-03 onwards primarily due to aforementioned WPI deflators which have registered growth of 8.8%, 20.1%, 21.7% and 8.8% during 2002-03, 2003-04, 2004-05 and 2005-06 respectively.

Year	Current GVA 1999-2000 base				Current GVA 2005-2006 base			
	Original		New		Slaughtering	GR.	Slaughtering	GR.
	Slaughtering	GR.	Slaughtering	GR.				
1999-00	51830		52919		61525		33831	
2000-01	53728	3.66	55314	4.53	63569	3.32	35292	4.32
2001-02	56272	4.73	58392	5.56	65806	3.52	37246	5.54
2002-03	63502	12.85	66542	13.96	68074	3.45	42139	13.14
2003-04	79961	25.92	85053	27.82	70347	3.34	52617	24.87
2004-05	99801	24.81	107787	26.73	72812	3.50	66580	26.54
2005-06	121770	22.01	121769	12.97	75339	3.47	75339	13.16



B-III: Electricity Generation & Distribution and Gas Distribution

Methodology adopted for current backward series for Electricity generation & distribution and Gas distribution is as under:

a) Electricity Generation and Distribution:

In order to construct backward series from 2005-06 (current base) to 1999-00 it was imperative to harmonize the structure of old and current series. For this purpose following structural changes have been adopted in the new base:

Structural Changes in 2005-06 Base:

1. The output was roughly at the same level in both the basis, however, the only difference was that subsidy was added in the output of 2005-06.
2. In old base the word “others” was used for IPPs and captives however in 2005-06 they have been given separate status.
3. Water supply was part of this sector in 1999-00 however in 2005-06 it has been excluded.

Methodology

- i. First step in compilation of backward series was to harmonize the structure of both the basis. So, GVA of Water Supply at current prices was excluded from the overall GVA of electricity generation from 1999-00 to 2004-05.
- ii. Subsidies received by WAPDA and KESC were added in their output from 1999-00 to 2004-05. The figures of subsidies were taken from the General Government Statistics Section of PBS.

b) Gas Distribution:

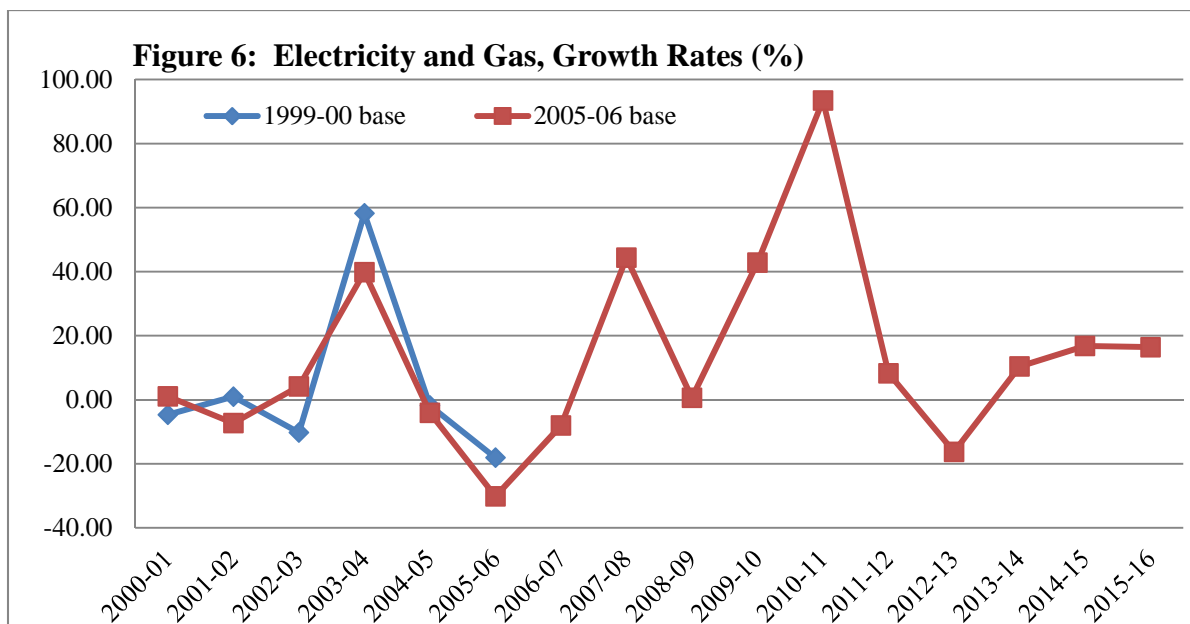
Methodology:

- i. Compressed Natural Gas (CNG), which was included in the distribution in 1999-00 base but is part of wholesale and trade in 2005-06 base. So, GVA of CNG at current prices was excluded from the overall GVA of Gas Distribution from 1999-00 to 2004-05.
- ii. OGDCL and PPL, which were part of the GVA in 1999-2000 base, have been excluded as their major activity was exploration. Further, output of Mari Gas Company comprised of exploration activities and distribution activities in 1999-2000 base. However in 2005-06 base, only distribution activities have been included in the output.
- iii. Growth rates of restructured series, after excluding CNG, LPG, OGDCL, PPL and exploration part of Mari Gas, were calculated.

c) Electricity generation and distribution and gas distribution

GVAs at current prices for Electricity generation & distribution and gas distribution were then added up to obtain overall GVA at current prices for electricity and gas sector. Comparison of value added of the above mentioned industry is presented in table 9 and figure 6. A fluctuating growth of electricity generation and distribution e.g. 41.2% in 2003-04, -8.2% in 2004-05 and -37.3% in 2005-06, has also resulted in fluctuations in the overall growth rates of the industry despite having positive and double digit growth from the gas distribution sub-sector from 2001-02 onwards.

Year	Current GVA 1999-2000 base		Current GVA 2005-2006 base					
	Electricity and Gas & Water Supply	G R	Electricity Generation & Distribution	G R	Gas Distribution	G R	Electricity Gen. & Dist. and Gas Dist.	G R
1999-00	139626		119999		7975		127974	
2000-01	133091	-4.68	123090	2.58	6199	-22.27	129289	1.03
2001-02	134350	0.95	110974	-9.84	8847	42.72	119821	-7.32
2002-03	120556	-10.27	114900	3.54	9897	11.87	124797	4.15
2003-04	190713	58.19	162274	41.23	12243	23.70	174517	39.84
2004-05	187267	-1.81	148979	-8.19	18378	50.11	167357	-4.10
2005-06	153338	-18.12	93406	-37.30	23414	27.40	116820	-30.20



B-IV: Construction

In the annual regular estimates on 2005-06 base, GVA of construction is primarily compiled at current prices based on construction expenditures incurred in various industries and

obtained from the GFCF estimates which are then converted into constant prices by applying the WPI building material. The backward series of GVA of construction at current prices has been compiled by applying the current growth rates of same industry for the respective years to GVA of 2005-06 i.e. the base year. The comparison of GVA of construction at current prices on 1999-2000 base and 2005-06 base is presented in the table 10.

Year	Current GVA 1999-2000 base		Construction GVA 2005-2006 base			
	Construction	G R	Constant	G R	Current	G R
1999-00	87386		136943		92274	
2000-01	94670	8.34	144129	5.25	99965	8.34
2001-02	95197	0.56	143355	-0.54	100521	0.56
2002-03	100880	5.97	149255	4.12	106522	5.97
2003-04	115497	14.49	139024	-6.86	121957	14.49
2004-05	153333	32.76	162348	16.78	161909	32.76
2005-06	179885	17.32	189946	17.00	189946	17.32

C: SERVICES SECTORS

C-I: Wholesale and Retail Trade (WRT)

WRT is the combination of several distinct groups which have been extrapolated backward separately as described below:-

1) Crops

Crops group in WRT is comprised of 19 items including wheat, maize, rice, cotton, sugarcane, grams, barley, jowar, bajra, pulses, potatoes, vegetables & fruits etc. and crop-wise value of output in 2005-06 has been used to derive the trade value added (TVA) by applying their respective marketable proportions and trade margins. The current backward series of TVA of crops has been compiled by using the crop-wise output at current prices for the aforementioned components and their respective marketable supply and trade margins.

2) Livestock

The output of livestock group in WRT in 2005-06 is comprised of live animals sold for slaughtering, milk, dung & urine and wool & hair whereas in 1999-2000 base component of live animals sold for slaughtering was not included. To extract backward series of livestock TVA, output at current prices has been used for components mentioned above and their respective marketable supply and trade margins have been applied in order to obtain component-wise TVA which has subsequently added-up get over all TVA of the group.

3) Forestry

Constant series of TVA of forestry was prepared by applying growth rates of same industry in 1999-2000 base. The TVA of forestry at current prices has been derived by applying the growth rates of TVA of forestry at current prices for the respective years.

4) Fishing

Constant series of TVA of fishing was prepared by applying growth rates of same industry in 1999-2000 base. The TVA of fishing at current prices has been derived by applying the growth rates of TVA of fishing at current prices for the respective years.

5) Large scale manufacturing (LSM)

The backward series of TVA of LSM products at constant prices was obtained by applying the growth rate of QIM. The constant values have been converted into current prices by applying the specifically compiled WPI deflators comprising of 83 items, having total weight of 58.7217. The detail has been given in the manufacturing section.

6) Small scale manufacturing

The TVA of small scale products was extrapolated from 2005-06 to 1999-00 by using the fixed growth of 7.51%, as was in 1999-2000 base series, which has been converted into current prices by applying the specifically compiled WPI comprising of 25 items. The detail has been given in the manufacturing section.

7) Slaughtering

The output of slaughtering at constant prices has been converted into current prices by applying the combined WPI inflator comprising of chicken and meat with 2005-06 as base. Then proportion of market share and trade margins being used in the 2005-06 base have been applied to obtain the TVA of slaughtering.

8) Imports

Imports are comprised of three distinct groups i.e. consumer goods, capital goods and intermediate goods. The data of imports for the year 1999-00 to 2005-06 at current prices was available in the National Accounts. Respective marketable supply and trade margins ratios were applied to obtain TVA at current prices.

9) CNG (special stores)

This component was not the part of 1999-00 base series. In order to obtain the GVA of CNG from 2004-05 to 1999-2000, the production data was taken from the Pakistan Energy book. These figures were then converted into TVA by applying trade margins at constant prices and same has been inflated by applying WPI Natural Gas in order to get current TVA of CNG.

10) Maintenance and repair of vehicles

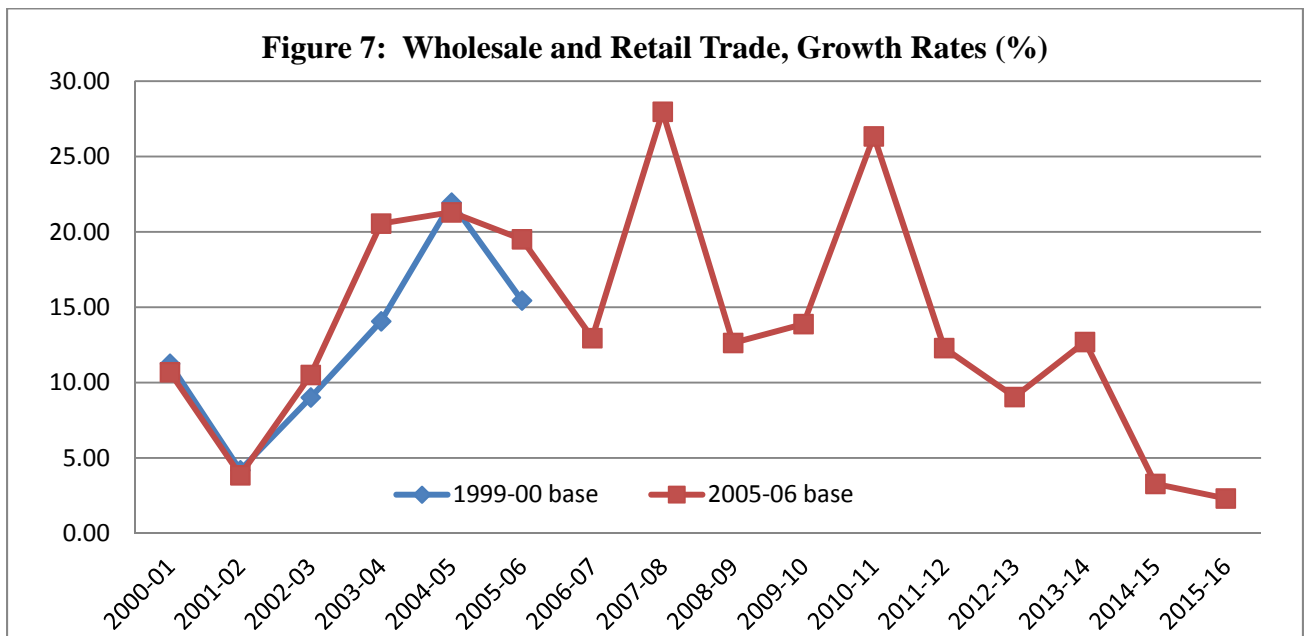
The output of maintenance & repair of vehicles at constant prices has been extrapolated backward by applying the growth rate of mechanized road transport. Then trade margin was applied to obtain the TVA at constant prices which has been converted into current prices by applying the WPI machinery.

11) Hotels & Restaurants

Backward series of GVA of Hotels & Restaurants at constant prices was extrapolated backward from 2005-06 to 1999-00 by a fixed growth rate of 10% and the same has been converted into current prices by applying food deflator.

All these components are then added up to make a backward series of WRT value added at current prices which is presented in table 11 along with value added figures on 1999-2000 base. Value added in WRT has registered a growth of 20.6%, 21.3% and 19.5% in 2003-04, 2004-05 and 2005-06 respectively due to high growth of LSM (45% in 2003-04, 26% in 2004-05 and 19% in 2005-06) and imported products (24% in 2003-04, 37% in 2004-05 and 40% in 2005-06).

Year	Current GVA 1999-2000 base		Current GVA 2005-2006 base	
	WRT	Growth Rate	WRT	Growth Rate
1999-00	621842		694367	
2000-01	691854	11.26	768588	10.69
2001-02	720812	4.19	798166	3.85
2002-03	785776	9.01	882046	10.51
2003-04	896357	14.07	1063340	20.55
2004-05	1093114	21.95	1289862	21.30
2005-06	1262001	15.45	1541563	19.51



C-II: Transport, Storage and Communication

Transport, Storage and Communication are three distinct activities and have been covered separately in 1999-2000 and 2005-06 bases. For the estimates of backward series of Pakistan Railways, actual current data has been used. Pakistan Railway Advisory & Consultancy Services Limited (PRACS) and Railways Franchised Booking Agents are new activities in 2005-06 base whose GVA at current prices has been derived by using the growth rates of Pakistan Railways at current prices for respective years.

The estimates of backward series of all the activities included in water transport subsector for the years from 2005-06 to 1999-2000 have been derived by using their specific individual current growth rates for respective years in 1999-2000 base which were applied to the GVA of 2005-06 base of each activity. Only for Port Qasim Authority actual current data were used. The backward estimates of GVA of new activity i.e. International Freight Forwarders has been derived by using growth rates of Shipping, Goods Forwarding & Custom Clearing Agents for the respective years.

The estimates of backward series of activities included in air transport subsector i.e. Pakistan International Airlines (PIA), Foreign Airlines, Civil Aviation Authority (CAA), Private Domestic Airlines & Travel Agents have been derived by applying their respective current growth rates in 1999-2000 base to the GVA of 2005-06 base. Although, composition of aforementioned subsector is same in 1999-2000 base and 2005-06 base but slight methodological changes have been made in the compilation of output and intermediate consumption (IC). In the PIA data, other operating income (operational) has been included in the output and insurance premium has been excluded from IC in 2005-06 base estimates. In the compilation of GVA of CAA in 2005-06 base, some components of non-aeronautical revenue given on sale of fixed assets etc. have been excluded from the output whereas insurance, interest charges on long-term loans etc. have been excluded from the IC. Estimates of GVA of travel agents in backward series have been compiled by applying the combined growth rate of PIA, foreign airlines and domestic airlines for respective years. The estimates of backward series of activities included in pipelines subsector has been compiled by applying their current growth rates in 1999-2000 base to the GVA of 2005-06 base. There was no change in the components of the sub-sector.

The estimates of backward series of output at current prices of all the activities included in road transport subsector for the year 2005-06 to 1999-2000 have been derived by applying the CPI (mechanized and non-mechanized) deflators to the output at constant prices of the backward series for the respective years. Similarly, IC at current prices has been derived by applying the WPI (Diesel) deflator to the constant IC. Consequently, current GVA for all the components of the road transport subsector has been derived as the residual of current output and current IC.

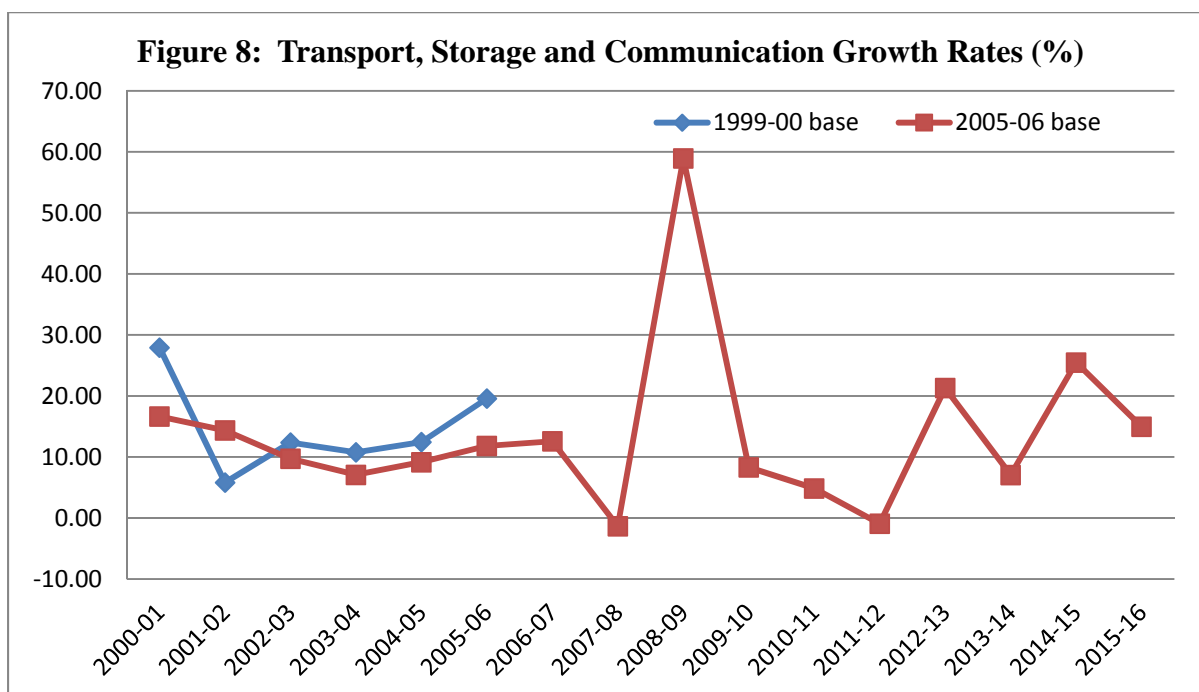
The estimates of backward series of storage sub-sector have been derived by using growth rates of same subsector of respective years in 1999-00 base which was applied to the GVA of 2005-06 base.

The estimates of backward series of all the activities included in communication subsector for the year 2005-06 to 1999-2000 have been derived by using their specific individual

growth rates of respective years in 1999-2000 base. Only for Mobile phone actual current data has been used. Franchised post offices are new activity in Communication subsector in 2005-06 base and its GVA estimates in backward series has been derived by using growth rates of post office activity for respective years.

The overall GVA of Transport, Storage and Communication at current prices has been compiled by summing up all the aforementioned activities which is presented in table 12 and figure 8 along with GVA in 1999-2000 base. An extraordinary increase in growth rate of GVA during 2008-09 in the estimates at current prices has been noticed during 2008-09 (Figure 8) which is due to PIA (202.2%), mechanized road transport (82.0%) and non-mechanized road transport (35.9%).

Year	Current GVA 1999-2000 base		Current GVA 2005-2006 base	
	Transport, Storage and Communication	Growth Rate	Transport, Storage and Communication	Growth Rate
1999-00	400983		507131	
2000-01	512997	27.93	591492	16.63
2001-02	542828	5.82	676463	14.37
2002-03	609929	12.36	742209	9.72
2003-04	675623	10.77	794747	7.08
2004-05	759711	12.45	867552	9.16
2005-06	908409	19.57	970028	11.81



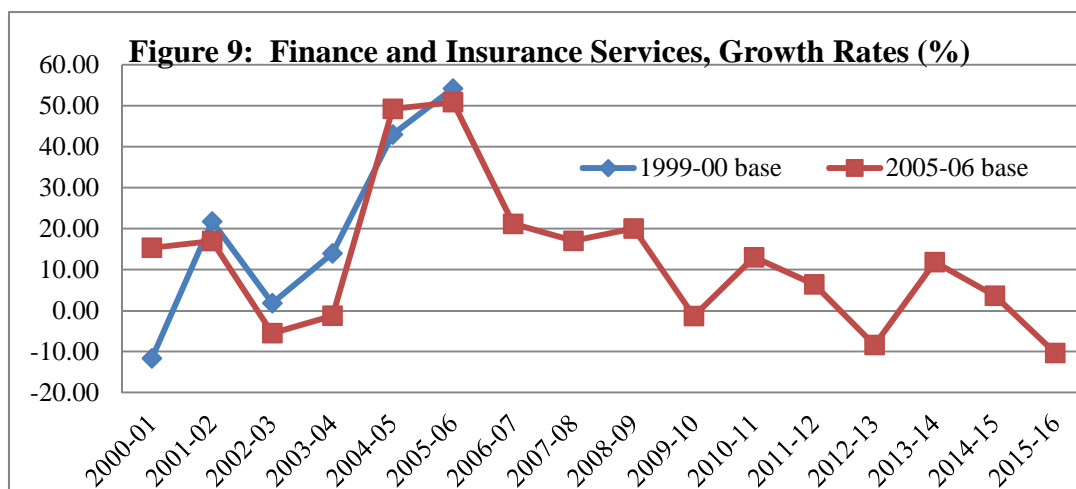
C-III: Finance & Insurance Sector

For compilation of the backward series, actual data has been used from 1999-00 to 2005-06 for every activity in Finance and Insurance. There is major change in methodology of GVA compilation in 2005-06 base as compared to the methodology in 1999-00 base. The backward current series is compiled in accordance with the methodology of 2005-06 base. The major difference is the incorporation of concept of FISIM.

There is also a change in the compilation of estimates for Central Banking and Insurance Industry. Moreover, GVA estimates for Stock Brokers and Stock Exchanges have also been added in the new base ie.2005-06.

The estimates from 1999-00 to 2005-06 at current prices have been compiled by using actual data and under 2005-06 base methodology. The comparison of value added in 1999-2000 base and 2005-06 is presented in the table 13. Due to major changes in compilation methodology, the estimates compiled are not directly comparable. The high growth rate in current GVA during 2004-05 and 2005-06 is due to increase in FISIM on deposits from Rs.20.8 billion in 2003-04 to Rs.100.5 billion in 2004-05 and Rs.183.5 billion in 2005-06. This is due to increase in spread on deposits (difference between KIBOR rate and rate of return) which has increased from 1.09 in 2003-04 to 4.34 in 2004-05 and 6.76 in 2005-06.

Year	Current GVA 1999-2000 base		Current GVA 2005-2006 base	
	Finance and Insurance	G R	Finance and Insurance	G R
1999-00	132454		99972	
2000-01	116997	-11.67	115282	15.31
2001-02	142424	21.73	134820	16.95
2002-03	144989	1.80	127340	-5.55
2003-04	165230	13.96	125690	-1.30
2004-05	236254	42.98	187549	49.22
2005-06	364320	54.21	282920	50.85



C-IV: Housing Services

In the 2005-06 base estimates, the GVA of housing services is primarily compiled at constant prices which are then converted into current prices by applying the CPI rent in contrast to 1999-2000 base where CPI (General) was used. In the compilation of backward series of GVA of housing services, the specifically compiled CPI (Rent) with 2005-06 as the base year, has been used. The comparison of GVA of housing services at current prices on 1999-2000 base and 2005-06 base is presented in the table 14.

Year	Current GVA 1999-2000 base		Housing Services GVA 2005-06 base			
	Ownership of Dwellings	G R	Constant	G R	Current	G R
1999-00	110425		411458		302003	
2000-01	124359	12.62	426933	3.76	322554	6.80
2001-02	126454	1.68	441883	3.50	343197	6.40
2002-03	135139	6.87	456330	3.27	357865	4.27
2003-04	146264	8.23	472342	3.51	386125	7.90
2004-05	165441	13.11	488921	3.51	444816	15.20
2005-06	184812	11.71	506081	3.51	506081	13.77

C-V: General Government Services

The backward series of current GVA of general government services from 2005-06 to 1999-2000 has been compiled by following steps described below:

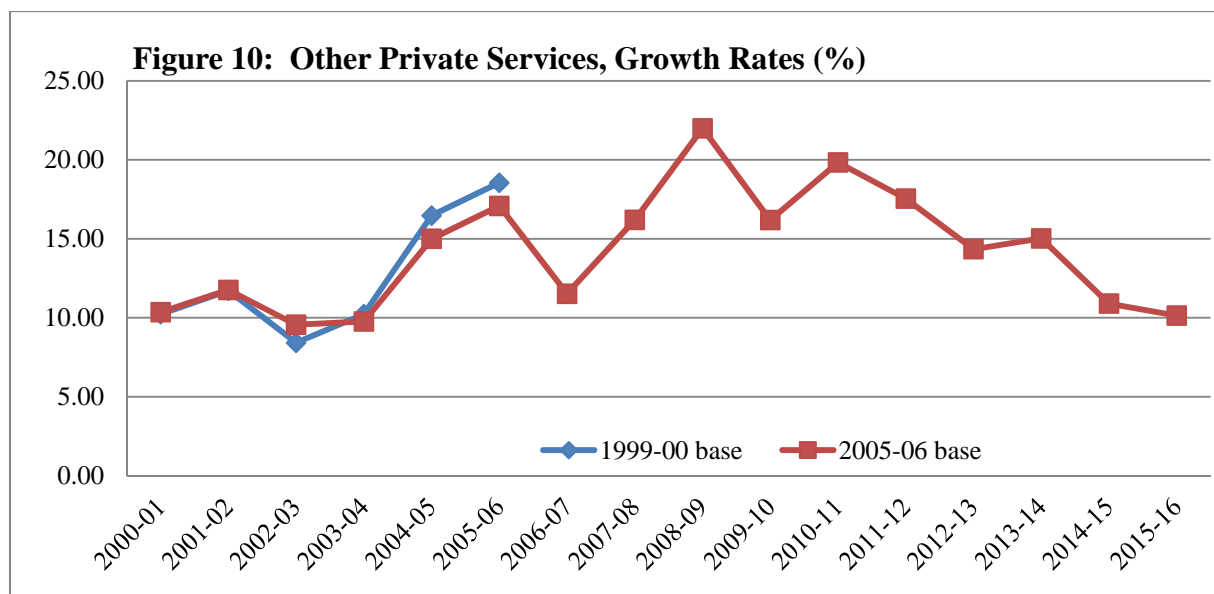
1. The backward series for wages and salaries of PA&D at current prices has been compiled by using the growth rates of wages and salaries of PA&D at current prices in 1999-2000 base.
2. The backward series for depreciation of PA&D at current prices has been derived by using the growth rates of depreciation of PA&D at current prices in 1999-2000 base.
3. For autonomous bodies actual data was available only for the year 2005-06. The backward series has been calculated by using the growth rates of wages and salaries of PA&D at current prices.
4. Depreciation for autonomous bodies was calculated by using the growth rates of depreciation of PA&D at current prices.
5. The figures for PA& D and autonomous bodies has been added-up to obtain the overall GVA for General Government Sector at current prices form 2004-05 to 1999-2000.

Year	Current GVA 1999-2000 base		Current GVA 2005-2006 base	
	Public Admn. & Defence	Growth Rate	General Government Services	Growth Rate
1999-00	220291		231842	
2000-01	235039	6.69	247372	6.70
2001-02	260042	10.64	273696	10.64
2002-03	285854	9.93	300837	9.92
2003-04	312105	9.18	328386	9.16
2004-05	343348	10.01	361217	10.00
2005-06	404628	17.85	425218	17.72

C-VI: Other Private Services

In the 1999-2000 base estimates, the current GVA of above mentioned industry were used to be compiled by applying the CPI (General) at aggregate level. However, in the 2005-06 base, the current GVA is compiled by applying the specific CPI deflator at more detailed level of the industry. Therefore, backward series of current GVA has been compiled by applying the specifically derived CPI deflators. The comparison of GVA of other private services at current prices on 1999-2000 base and 2005-06 base is presented in the table 16.

Year	Current GVA 1999-2000 base		Other Private Services GVA 2005-06 base			
	Social, Community & Personal Services	Growth Rate	Constant	Growth Rate	Current	Growth Rate
1999-00	321551		424886		322738	
2000-01	354434	10.23	447960	5.43	356147	10.35
2001-02	395967	11.72	483320	7.89	398051	11.77
2002-03	429301	8.42	514431	6.44	436095	9.56
2003-04	473211	10.23	543900	5.73	478673	9.76
2004-05	551181	16.48	584219	7.41	550475	15.00
2005-06	653437	18.55	644514	10.32	644514	17.08



Summary Results: Current GVA

Summary results of current GVA are presented in tables 17 through 21 and in figures 11 & 12.

Base Year	Industry	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Current GVA 1999-2000 base	Agricultural Sector	923609	945301	968291	1059316	1164751	1314234	1457222
	Growth (%)		2.35	2.43	9.40	9.95	12.83	10.88
	Industrial Sector	830865	942263	989349	1083914	1416986	1659285	1923698
	Growth (%)		13.41	5.00	9.56	30.73	17.10	15.94
	Services Sectors	1807546	2035680	2188527	2390988	2668790	3149049	3777607
	Growth (%)		12.62	7.51	9.25	11.62	18.00	19.96
	Total (GDP)	3562020	3923244	4146167	4534218	5250527	6122568	7158527
	Growth (%)		10.14	5.68	9.36	15.80	16.61	16.92
Current GVA 2005-06 base	Agricultural Sector	1093339	1126242	1141334	1236023	1440456	1645874	1785768
	Growth (%)		3.01	1.34	8.30	16.54	14.26	8.50
	Industrial Sector	769680	859444	897854	997331	1255266	1465543	1665794
	Growth (%)		11.66	4.47	11.08	25.86	16.75	13.66
	Services Sectors	2158053	2401435	2624393	2846392	3176961	3701472	4370324
	Growth (%)		11.28	9.28	8.46	11.61	16.51	18.07
	Total (GVA)	4021072	4387121	4663582	5079746	5872683	6812889	7821886
	Growth (%)		9.10	6.30	8.92	15.61	16.01	14.81

Table 18: Backward Series of Gross Value Added (GVA) at Current Prices (2005-06 base) (Rs. Million)

S. No	Industry	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
A.	Agricultural Sector (1 to 4)	1093339	1126242	1141334	1236023	1440456	1645874	1785768
	1. Crops (i+ii+iii)	555297	554758	537895	589253	693041	769983	770828
	Crop (i + ii)	512677	507792	494831	539783	630528	709333	710356
	i) Important Crops	325520	317657	299172	347134	424438	461032	452759
	ii) Other Crops	187157	190135	195659	192649	206090	248301	257597
	iii) Cotton Ginning	42620	46966	43064	49470	62513	60650	60472
	2. Livestock	469882	500121	533933	575845	671742	810811	936498
	3. Forestry	29947	33679	32612	37167	39966	29969	35279
	4. Fishing	38213	37684	36894	33758	35707	35111	43163
B.	Industrial Sector (1 to 4)	769680	859444	897854	997331	1255266	1465543	1665794
	1. Mining and Quarrying	101502	121887	138186	163642	205630	201738	258628
	2. Manufacturing (i+ii+iii)	447930	508303	539326	602370	753162	934539	1100400
	i) Large Scale	365258	419324	443951	496094	624184	785501	933139
	ii) Small Scale	48842	53687	58129	64137	76362	82459	91922
	iii) Slaughtering	33831	35292	37246	42139	52617	66580	75339
	3 Electricity generation & distribution and Gas distribution	127974	129289	119821	124797	174517	167357	116820
	4. Construction	92274	99965	100521	106522	121957	161909	189946
	Commodity Producing Sectors (A+B)	1863019	1985686	2039188	2233354	2695722	3111417	3451562
C.	Services Sectors (1 to 6)	2158053	2401435	2624393	2846392	3176961	3701472	4370324
	1. Wholesale & Retail trade	694367	768588	798166	882046	1063340	1289862	1541563
	2. Transport, Storage & Communication	507131	591492	676463	742209	794747	867552	970028
	3. Finance & Insurance	99972	115282	134820	127340	125690	187549	282920
	4. Housing Services (OD)	302003	322554	343197	357865	386125	444816	506081
	5. General Government Services	231842	247372	273696	300837	328386	361217	425218
	6. Other Private Services	322738	356147	398051	436095	478673	550475	644514
D.	GDP {Total of GVA at bp (A+B+C)}	4021072	4387121	4663582	5079746	5872683	6812889	7821886

Table 19: Comparison of Growth Rates (Without FISIM) of GVA at **Current Prices** (1999-2000 base and 2005-06 base) (%)

S. No	Industry	1999-2000 base						2005-06 base					
		2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
A.	Agricultural Sector (1 to 4)	2.35	2.43	9.40	9.95	12.83	10.88	3.01	1.34	8.30	16.54	14.26	8.50
	1. Crops (i+ii+iii)							-0.10	-3.04	9.55	17.61	11.10	0.11
	Crop (i + ii)	-2.48	-1.37	11.24	7.52	21.10	-2.92	-0.95	-2.55	9.08	16.81	12.50	0.14
	i) Important Crops	-4.86	-2.68	16.81	11.27	20.81	-6.69	-2.42	-5.82	16.03	22.27	8.62	-1.79
	ii) Other Crops	3.98	1.88	-2.02	-3.13	22.03	9.24	1.59	2.91	-1.54	6.98	20.48	3.74
	iii) Cotton Ginning							10.20	-8.31	14.88	26.37	-2.98	-0.29
	2. Livestock	6.94	6.78	7.70	12.72	7.43	23.39	6.44	6.76	7.85	16.65	20.70	15.50
	3. Forestry	12.76	-3.13	13.81	8.40	-24.68	15.74	12.46	-3.17	13.97	7.53	-25.01	17.72
	4. Fishing	9.12	-1.02	1.51	0.62	4.56	74.34	-1.38	-2.10	-8.50	5.77	-1.67	22.93
B.	Industrial Sector (1 to 4)	13.41	5.00	9.56	30.73	17.10	15.94	11.66	4.47	11.08	25.86	16.75	13.66
	1. Mining and Quarrying	31.24	9.95	17.18	51.99	-12.60	20.67	20.08	13.37	18.42	25.66	-1.89	28.20
	2. Manufacturing (i+ii+iii)	16.32	5.71	12.85	24.41	25.94	20.60	13.48	6.10	11.69	25.03	24.08	17.75
	i) Large Scale	21.35	3.22	13.51	29.19	31.00	23.13	14.80	5.87	11.75	25.82	25.84	18.80
	ii) Small Scale	8.38	12.74	11.64	11.11	10.74	10.71	9.92	8.27	10.34	19.06	7.98	11.48
	iii) Slaughtering	3.78	6.02	11.35	25.92	24.81	22.01	4.32	5.54	13.14	24.87	26.54	13.16
	3 Electricity generation & distribution and Gas distribution	-4.68	0.95	-10.27	58.19	-1.81	-18.12	1.03	-7.32	4.15	39.84	-4.10	-30.20
	4. Construction	8.34	0.56	5.97	14.49	32.76	17.32	8.34	0.56	5.97	14.49	32.76	17.32
	Commodity Producing Sectors (A+B)	7.59	3.71	9.48	20.46	15.18	13.70	6.58	2.69	9.52	20.70	15.42	10.93
C.	Services Sectors (1 to 6)	12.62	7.51	9.25	11.62	18.00	19.96	11.28	9.28	8.46	11.61	16.51	18.07
	1. Wholesale & Retail trade	11.26	4.19	9.01	14.07	21.95	15.45	10.69	3.85	10.51	20.55	21.30	19.51
	2. Transport, Storage & Communication	27.93	5.82	12.36	10.77	12.45	19.57	16.63	14.37	9.72	7.08	9.16	11.81
	3. Finance & Insurance	-11.67	21.73	1.80	13.96	42.98	54.21	15.31	16.95	-5.55	-1.30	49.22	50.85
	4. Housing Services (OD)	12.62	1.68	6.87	8.23	13.11	11.71	6.80	6.40	4.27	7.90	15.20	13.77
	5. General Government Services	6.69	10.64	9.93	9.18	10.01	17.85	6.70	10.64	9.92	9.16	10.00	17.72
	6. Other Private Services	10.23	11.72	8.42	10.23	16.48	18.55	10.35	11.77	9.56	9.76	15.00	17.08
D.	GDP {Total of GVA at bp (A+B+C)}	10.14	5.68	9.36	15.80	16.61	16.92	9.10	6.30	8.92	15.61	16.01	14.81

Table 20: Backward Series of GVA (FISIM Adjusted) at **Current Basic Prices**

S. No	Industry	2005-06 base (Rs. Million)						
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06 (Fisim Adj.)
A.	Agricultural Sector (1 to 4)	1087041	1119794	1134823	1228846	1432002	1636204	1775346
	1. Crops (i+ii+iii)	552017	551533	534805	585777	688885	765390	766274
	Crop (i + ii)	509397	504567	491741	536307	626372	704740	705802
	i) Important Crops	322835	315037	296705	344271	420938	457230	449025
	ii) Other Crops	186561	189530	195036	192036	205434	247511	256777
	iii) Cotton Ginning	42620	46966	43064	49470	62513	60650	60472
	2. Livestock	467044	497101	530708	572367	667685	805914	930842
	3. Forestry	29767	33477	32416	36944	39726	29789	35067
	4. Fishing	38213	37684	36894	33758	35707	35111	43163
B.	Industrial Sector (1 to 4)	744651	831934	869622	966270	1215556	1419763	1616157
	1. Mining and Quarrying	99821	119868	135898	160932	202225	198397	254345
	2. Manufacturing (i+ii+iii)	433666	492116	522153	583187	729173	904754	1065323
	i) Large Scale	353587	405926	429766	480242	604239	760402	903323
	ii) Small Scale	47351	52048	56354	62179	74031	79942	89116
	iii) Slaughtering	32729	34142	36032	40766	50902	64410	72884
	3 Electricity generation & distribution and Gas distribution	120622	121862	112938	117628	164491	157743	110109
	4. Construction	90541	98088	98634	104522	119667	158869	186380
	Commodity Producing Sectors (A+B)	1831692	1951728	2004445	2195115	2647559	3055968	3391503
C.	Services Sectors (1 to 6)	2135563	2376272	2596879	2816193	3142905	3662005	4324274
	1. Wholesale & Retail trade	686036	759366	788589	871463	1050582	1274386	1523067
	2. Transport, Storage & Communication	501626	585072	669120	734153	786120	858135	959499
	3. Finance & Insurance	99972	115282	134820	127340	125690	187548	282919
	4. Housing Services (OD)	301205	321701	342289	356919	385104	443640	504743
	5. General Government Services	231842	247372	273696	300837	328386	361217	425218
	6. Other Private Services	314883	347479	388364	425482	467024	537078	628828
D.	GDP {Total of GVA at bp (A+B+C)}	3967255	4328001	4601324	5011308	5790464	6717972	7715777

Table 21: Comparison of Growth Rates (FISIM Adjusted) of GVA at **Current Prices** (1999-2000 base and 2005-06 base) (%)

S. No	Industry	1999-2000 base						2005-06 base					
		2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
A.	Agricultural Sector (1 to 4)	2.35	2.43	9.40	9.95	12.83	10.88	3.01	1.34	8.29	16.53	14.26	8.50
	1. Crops (i+ii+iii)							-0.09	-3.03	9.53	17.60	11.11	0.12
	Crop (i + ii)	-2.48	-1.37	11.24	7.52	21.10	-2.92	-0.95	-2.54	9.06	16.79	12.51	0.15
	i) Important Crops	-4.86	-2.68	16.81	11.27	20.81	-6.69	-2.42	-5.82	16.03	22.27	8.62	-1.79
	ii) Other Crops	3.98	1.88	-2.02	-3.13	22.03	9.24	1.59	2.91	-1.54	6.98	20.48	3.74
	iii) Cotton Ginning	0.00	0.00	0.00	0.00	0.00	0.00	10.20	-8.31	14.88	26.37	-2.98	-0.29
	2. Livestock	6.94	6.78	7.70	12.72	7.43	23.39	6.44	6.76	7.85	16.65	20.70	15.50
	3. Forestry	12.76	-3.13	13.81	8.40	-24.68	15.74	12.46	-3.17	13.97	7.53	-25.01	17.72
	4. Fishing	9.12	-1.02	1.51	0.62	4.56	74.34	-1.38	-2.10	-8.50	5.77	-1.67	22.93
B.	Industrial Sector (1 to 4)	13.41	5.00	9.56	30.73	17.10	15.94	11.72	4.53	11.11	25.80	16.80	13.83
	1. Mining and Quarrying	31.24	9.95	17.18	51.99	-12.60	20.67	20.08	13.37	18.42	25.66	-1.89	28.20
	2. Manufacturing (i+ii+iii)	16.32	5.71	12.85	24.41	25.94	20.60	13.48	6.10	11.69	25.03	24.08	17.75
	i) Large Scale	21.35	3.22	13.51	29.19	31.00	23.13	14.80	5.87	11.75	25.82	25.84	18.80
	ii) Small Scale	8.38	12.74	11.64	11.11	10.74	10.71	9.92	8.27	10.34	19.06	7.98	11.48
	iii) Slaughtering	3.78	6.02	11.35	25.92	24.81	22.01	4.32	5.54	13.14	24.87	26.54	13.16
	3 Electricity generation & dist. and Gas distribution	-4.68	0.95	-10.27	58.19	-1.81	-18.12	1.03	-7.32	4.15	39.84	-4.10	-30.20
	4. Construction	8.34	0.56	5.97	14.49	32.76	17.32	8.34	0.56	5.97	14.49	32.76	17.32
	Commodity Producing Sectors (A+B)	7.59	3.71	9.48	20.46	15.18	13.70	6.55	2.70	9.51	20.61	15.43	10.98
C.	Services Sectors (1 to 6)	12.62	7.51	9.25	11.62	18.00	19.96	11.27	9.28	8.45	11.60	16.52	18.08
	1. Wholesale & Retail trade	11.26	4.19	9.01	14.07	21.95	15.45	10.69	3.85	10.51	20.55	21.30	19.51
	2. Transport, Storage & Communication	27.93	5.82	12.36	10.77	12.45	19.57	16.63	14.37	9.72	7.08	9.16	11.81
	3. Finance & Insurance	-11.67	21.73	1.80	13.96	42.98	54.21	15.31	16.95	-5.55	-1.30	49.22	50.85
	4. Housing Services (OD)	12.62	1.68	6.87	8.23	13.11	11.71	6.80	6.40	4.27	7.90	15.20	13.77
	5. General Govt. Services	6.69	10.64	9.93	9.18	10.01	17.85	6.70	10.64	9.92	9.16	10.00	17.72
	6. Other Private Services	10.23	11.72	8.42	10.23	16.48	18.55	10.35	11.77	9.56	9.76	15.00	17.08
D.	GDP {Total of GVA at bp (A+B+C)}	10.14	5.68	9.36	15.80	16.61	16.92	9.09	6.32	8.91	15.55	16.02	14.85

Figure 11: Gross Value Added (Current), Growth Rates (%)

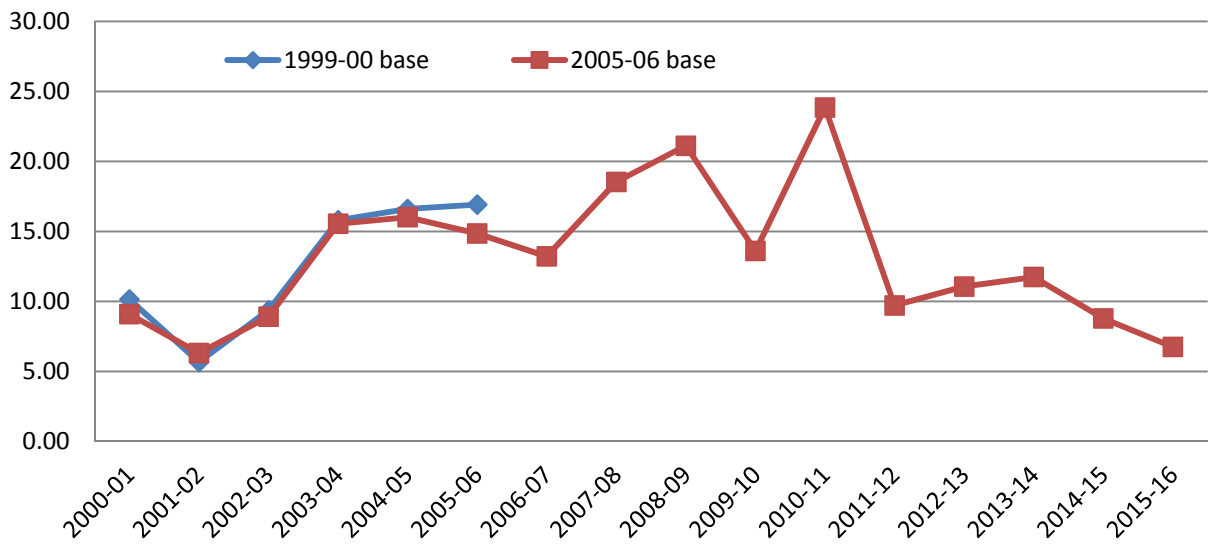
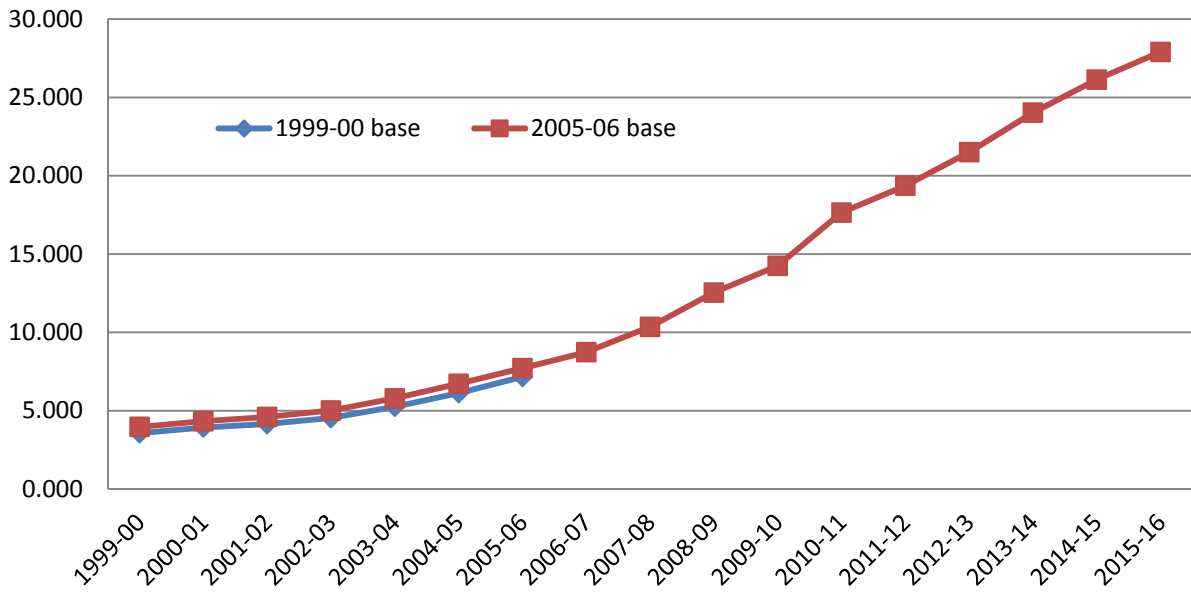
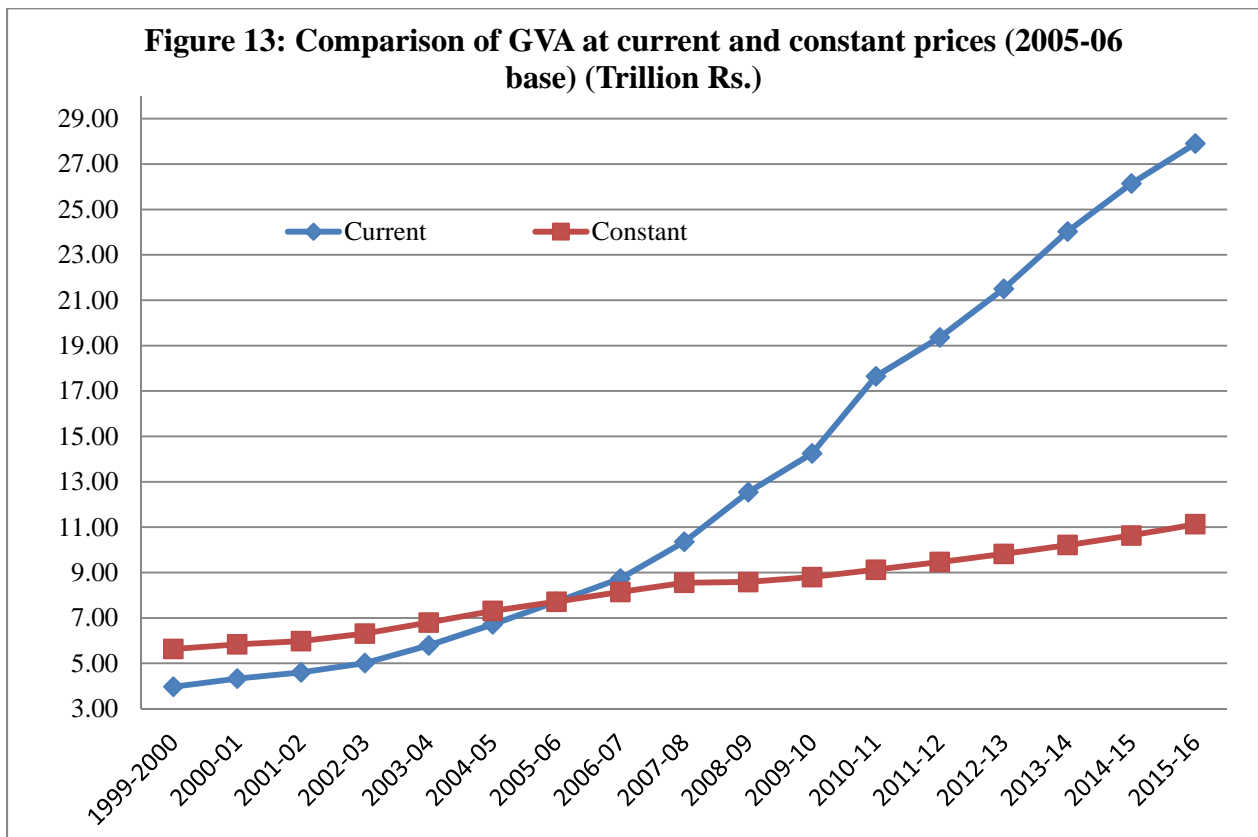


Figure 12: Current GVA (Trillion Rs.)



Overall Summary: Current and Constant GVA

The comparison of overall GVA at current and constant basic prices in the back ward series with 2005-06 as the base year is presented in the figure 13. The overall volume of GVA at both current as well as constant prices for the year 2005-06 i.e. the base year stands at Rs.7.72 trillion. The GVA at current prices for the years from 1999-2000 to 2004-05 falls short of the GVA at constant prices e.g. Rs.3.97 trillion at current prices vs Rs.5.63 trillion at constant prices in 1999-2000, Rs.4.33 trillion at current prices vs Rs.5.84 trillion at constant prices in 2000-01, Rs.4.60 trillion at current prices vs Rs.5.97 trillion at constant prices in 2001-02 and so on. However, after 2005-06 GVA at current prices exceeds the GVA at constant prices e.g. Rs.8.74 trillion at current prices vs Rs.8.14 trillion at constant prices in 2006-07, Rs.10.36 trillion at current prices vs Rs.8.55 trillion at constant prices in 2007-08 and so on. Further, the trend of increasing gap between current and constant GVA after the base year i.e. 2005-06 can also be observed in the figure 13. This increasing trend lead to the conclusion that farther we move from the base year, the higher will be the gap between current and constant GVA. This phenomenon in turn gives rise to the need of change of base of national accounts after regular intervals.



CHAPTER 5

Backward Series of Expenditure on Gross Domestic Product

A. Introduction

Expenditure on Gross Domestic Product (GDP), which is known as final uses of GDP, is comprised of individual consumption expenditures of households and NPISH, collective consumption expenditure (general government), gross fixed capital formation (GFCF), changes in inventories, acquisitions less disposals of valuables and exports and imports of goods and services.

B. Individual Consumption Expenditure of Households and NPISH

Household's individual consumption expenditure consists of expenditure incurred by resident households on consumption of goods or services. Apart from the consumer goods and services, final consumption expenditure by households also include the estimated value of barter transactions, goods and services received in kind, and goods and services produced and consumed by the same household but exclude expenditure on fixed assets in the form of dwellings and valuables. When a household includes one or more persons who own an unincorporated enterprise, all expenditure incurred for business purposes is excluded from household individual consumption expenditure. It is necessary to ensure that only expenditure for the direct satisfaction of human needs and wants is included in household individual consumption expenditure.

Non-Profit Institutions Serving Households (NPISH) include political parties, trade unions, religious organizations, sports clubs, cultural associations, charities associations with philanthropic aims and certain charitable foundations but do not include those institutions with non-commercial aims. NPISH are units formed by groups of households in order to supply services to themselves or to other households on a noncommercial basis whose major source of funding are the donations by households or regular subscriptions. As the non-market services provided by NPISH are consumed by themselves, therefore their final consumption expenditures are equal to their operating costs.

Household expenditure is recorded at the purchasers' prices paid by households including any taxes on products that may be payable at the time of purchase. In Pakistan, household's final consumption expenditure including those of the NPISH is estimated as the residual of the GDP while the remaining components of the aggregate demand such as final consumption of the government, gross capital formation and exports less imports of goods & non-factor services are compiled directly (details are discussed in following paragraphs). This practice is common in estimates of 1999-2000 base as well as 2005-06 base. As such, the household's final consumption expenditure in the estimates of backward series has also been derived as the residual of the GDP separately at current and constant prices.

C. Collective Consumption Expenditure (General government)

The collective consumption expenditures by the general government are incurred on the outputs of non-market producers that are provided either free of cost or at economically insignificant prices to individual households or community. Although, government may produce output for own final use and some market output but most production by units of general government is non-market in nature. The value of the non-market output is estimated by the sum of the costs involved in production. Therefore, final consumption expenditure by government is equal to its cost as under:-

Collective consumption expenditure =
Compensation of employees of the government,
Plus purchases by government of materials and other intermediate consumption items,
Plus consumption of government fixed capital,
Plus purchases of goods and services by the government for the benefit of households
Plus other taxes on production
minus partial payments by households or firms for services provided by government
Plus non-market output of the central bank

The final consumption expenditure by government is the second largest final use of the GDP after the household consumption. In Pakistan, the final consumption expenditure by government is compiled by the aforementioned sum of costs approach and is also classified according to the classification of the functions of government (COFOG). The method of compilation of the government's final consumption expenditure in 1999-2000 base and 2005-06 base is almost same with the exception of inclusion of non-market output of State Bank of Pakistan and those of autonomous bodies in 2005-06 base.

D. Gross fixed capital formation

GFCF is precisely defined in the national accounts as the net acquisition of produced fixed assets, i.e. assets intended for use in the production of other goods and services for a period of more than one year. GFCF is measured by the total value of a producer's acquisitions, less disposals, of fixed assets during the accounting period plus certain specified expenditure on services that adds to the value of non-produced assets and own account capital formation.

The GFCF in national accounts signifies only the produced assets i.e. the assets that are the result of a production process recognized whereas transactions in non-produced assets are included in balance sheet accounts. The assets are broadly categories into two categories (i) tangible fixed assets such as dwellings, other buildings and structures, machinery & equipment, cultivated assets and weapon systems and (ii) intangible fixed assets such as mineral exploration, software & databases, research & development and literary & artistic originals etc. In Pakistan, GFCF is compiled by type of industries as well as by type of assets.

The GFCF in private sector is being compiled by commodity flow approach, survey method or financing approach. The detail is available in the PBS publication titled "National Accounts of Pakistan: Change of base from 1999-2000 to 2005-06". The commodity flow

approach is adopted in crops, construction, and transport industries whereas financing approach is used to estimate GFCF in under construction units engaged in the large scale manufacturing. The GFCF in all other industries is compiled by survey method.

GFCF: Industry-Wise Methodology

It is important to note that foreign direct private investment (FDPI) was used to be included in the private sector estimates of GFCF in 1999-2000 base. This practice has been discontinued in the 2005-06 base estimates in order to avoid double counting as this component is covered in the GFCF expenditure reported directly by the establishment under relevant industries in the annual surveys. Accordingly, FDPI has been excluded from the private sector GFCF estimates in 1999-2000 base of relevant industries while making comparison in the backward series estimates being presented in the following paragraphs. Another point need to be considered while reading this section is that the detailed methodology of compilation of GFCF has been given in the PBS publication titled “National Accounts of Pakistan: Change of base from 1999-2000 to 2005-06”. In this section, only the procedure of compiling the GFCF estimates for the backward series from 2005-06 to 1999-2000 at current and constant prices has been documented. The industry-wise detail of compilation methodology and estimates in the backward series are presented in following paragraphs:-

I: AGRICULTURE

I (a): Crops

i) Private sector

In the private sector, GFCF in crops is comprised of agriculture machinery (domestic production and imported), tube wells and miscellaneous components comprising of monetized land improvements, farms, building & sheds, wells & bundat, farm transport, water courses, orchards, non-monetized investment and construction of tube wells. The procedure for the compilation of backward series of GFCF in crops by private sector is as under:-

- The estimates of imported machinery have been compiled at current prices by using direct annual data and by applying trade mark-up rates of 2005-06 base which have been converted into constant prices by applying the specifically compiled WPI deflator comprising of 19 items relating to metal products, machinery & equipment having total weight of 8.7156.
- The GFCF expenditure incurred on purchase of domestically produced tractors has been compiled at current prices by using direct annual data whereas GFCF expenditure incurred on remaining components of domestic machinery such as wheat thrashers, sugarcane machines & chaff cutters has been compiled at constant prices by using actual annual quantities and prices & trade mark-up rates of 2005-06 base. For conversion purpose, the aforementioned WPI deflator has been applied.
- The methodology for the compilation of GFCF of tube wells has been changed in 2005-06 base. In 1999-2000 base estimates, the actual data from the provinces was used but in 2005-06 base it is extrapolated by the growth of number of tube wells at constant prices. Moreover, construction of tube wells (new addition in 2005-06 base) has been estimated

as fixed proportion i.e. 25% of the GFCF of tube wells also at constant prices. The current GFCF of this component has been obtained by applying the WPI deflator.

- The GFCF expenditure incurred on miscellaneous components has been estimated at constant prices by applying their respective inter-census growth rates between 1990 and 2000 censuses except construction of tube wells which has been converted into current prices by applying the WPI deflator.

All of the above mentioned have been added-up at respective current and constant price level separately in order to obtain the overall GFCF estimates of crops and are presented in table 1(a). While compiling the backward series of GFCF few errors have been detected in the published GFCF series in 1999-2000 base. First, GFCF of farms, buildings and sheds (a component of miscellaneous GFCF) was used to be extrapolated mistakenly by inter-census growth rate of 16.4% instead of actual growth of 2.08%. Second, the entire component of miscellaneous GFCF, which is actually compiled at constant prices, was used to be included in the GFCF at current prices. Third, CIF value of imported agriculture machinery has been corrected for the year 2005-06. All these changes have been incorporated in the 1999-2000 base series of GFCF at current and constant prices and corrected series has also been presented in table 1 for comparison purpose. Resultantly, a significant variation among the growth rates of GFCF in 1999-2000 base and 2005-06 base have been noted mainly due to incorporation of detected corrections as well as change of deflators.

Table 1(a): Backward Series of GFCF in Crops: Private Sector

Years	Constant Prices						Current Prices					
	1999-00 base			2005-06 base			1999-00 base			2005-06 base		
	Published GFCF Rs. Mill.	Gr. (%)	Corrected GFCF Rs. Mill.	Gr. (%)	GFCF Rs. Mill.	Gr. (%)	Published GFCF Rs. Mill.	Gr. (%)	Corrected GFCF Rs. Mill.	Gr. (%)	GFCF Rs. Mill.	Gr. (%)
1999-00	53346		53346		78130		53346		53346		66278	
2000-01	44938	-15.76	45163	-15.34	73269	-6.22	46448	-12.93	46681	-12.49	63348	-4.42
2001-02	42140	-6.23	42440	-6.03	68787	-6.12	45157	-2.78	45479	-2.57	63883	0.84
2002-03	46562	10.49	47239	11.31	77707	12.97	52782	16.89	53550	17.75	71180	11.42
2003-04	36456	-21.7	40954	-13.31	77158	-0.71	53044	0.5	59588	11.27	74141	4.16
2004-05	38245	4.91	45114	10.16	77020	-0.18	67744	27.71	79911	34.11	77582	4.64
2005-06	32738	-14.4	41177	-8.73	84348	9.51	67807	0.09	85285	6.73	84348	8.72

ii) Public Sector

The GFCF estimates of crops in public sector are based upon data supplied by the public sector organizations. The GFCF in the backward series at current prices has been derived by applying the growth rates of current GFCF in 1999-2000 base series applied to GFCF for the year 2005-06. These estimates have been converted into constant prices by applying the WPI deflators. The comparison of public sector GFCF at current and constant prices is presented in table 1(b).

Table 1(b): Backward Series of GFCF in Crops: Public Sector (Rs. Million)

Years	Constant Prices		Current Prices	
	1999-00 base	2005-06 base	1999-00 base	2005-06 base
1999-00	2921	85	2921	72
2000-01	658	19	680	17
2001-02	3703	105	3968	97
2002-03	1224	37	1388	34
2003-04	75	3	109	3
2004-05	125	5	222	5
2005-06	983	50	2037	50

I (b): Livestock

In 2005-06 base, GFCF of livestock is comprised of the “Cultivated Assets” i.e. value of mature (3 + years) and immature (> 1 & <3 years) animals, natural growth, new born and imports of live animals. The detail of compilation of backward series of GFCF of livestock is described below:-

- The entire population of livestock population has been smoothed by applying new inter-census growth rates between 1996 and 2006 censuses.
- The revised population, obtained in the above step, has been used to prepare GFCF of livestock in the format of 1999-2000 base at constant prices and growth rates have been obtained separately for cultivated assets. These growth rates have been used to derive the backward series of GFCF at constant prices for cultivated assets. The GFCF at current prices of these components has been compiled by applying the WPI deflator comprising of meat and fresh milk.
- The GFCF expenditure incurred on imports of live animals (new addition in 2005-06) has been directly compiled from the available data at current prices. The imports unit value index has been used to obtain the GFCF series at constant prices of this component.

The aforementioned components have been added-up at respective current and constant price levels and overall estimates of GFCF livestock in 1999-2000 base and 2005-06 base are presented in table 2. Some compilation errors have also been detected in the GFCF series of livestock both at current and constant prices. First, the GFCF of cultivated assets, which in principle was used to be compiled at constant prices in accordance with the methodology in 1999-2000 base, was used to be incorporated in the current estimates from 1999-2000 to 2003-04. Second, a new component i.e. natural growth compiled at constant prices, was included in the GFCF estimates from 2004-05 onwards and was incorporated in the current series of GFCF. In 1999-2000 base GFCF in published estimates during 2004-05 has unusual increase i.e.217.7% & 286.71% at constant and current prices respectively, which is due to use of estimated livestock population on the basis of livestock census 2006. The high growth rate 15.2% & 34.7% during 2005-06 in published estimates of 1999-2000 base was due to use of fresh census’s data. The differences between growth rates in 1999-2000 base and 2005-06 base at both current and constant prices are also due to use of different deflators.

Table 2: Backward Series of GFCF in Livestock: Private Sector

Years	Constant Prices						Current Prices					
	1999-00 base				2005-06 base		1999-00 base				2005-06 base	
	Published	Gr.	Corrected	Gr.	GFCF Rs.Mill.	Gr. (%)	Published		Corrected		GFCF Rs.Mill.	Gr. (%)
	Mill. Rs.	(%)	Mill. Rs.	(%)			GFCF Mill. Rs.	Gr. (%)	GFCF Mill. Rs.	Gr. (%)		
1999-00	17782		60498		135252		17782		60498		87868	
2000-01	18510	4.1	62491	3.29	139694	3.28	19132	7.59	64591	6.76	91128	3.71
2001-02	19147	3.44	64937	3.91	145102	3.87	20518	7.24	69587	7.74	95946	5.29
2002-03	20003	4.47	67278	3.60	150374	3.63	22675	10.51	76267	9.6	103742	8.12
2003-04	20697	3.47	69860	3.84	156096	3.81	30114	32.81	101646	33.28	122288	17.88
2004-05	65745	217.66	72584	3.90	162166	3.89	116455	286.71	128568	26.49	147206	20.38
2005-06	75731	15.19	75487	4.00	168657	4.00	156854	34.69	156348	21.61	168657	14.57

Note: In 2004-05 and 2005-06 natural growth has been included.

I (c): Forestry

The GFCF of forestry in 2005-06 base is compiled primarily at constant prices by applying the fixed growth rate of 3.5%. The same method has been adopted for the compilation of GFCF estimates at constant prices in the backward series from 2004-05 to 1999-2000. The GFCF so compiled has been converted into current prices by applying the WPI deflator comprising of metal and machinery products.

The comparison of GFCF in 1999-2000 base and 2005-06 base at current and constant prices is presented in table 3. In 1999-2000 base, GFCF estimates were used to be compiled primarily at current prices and were based on results of the study for the years from 1999-2000 to 2002-03, which were extrapolated by fixed growth of 5.08% from 2003-04 and onwards. The compilation of GFCF at current prices at nominal growth of 5.08% lead to negative growth rates in the constant series in 1999-2000 base (Table 4). In order to make the comparison reasonable, an exercise has been made by compiling the GFCF at constant prices with fixed aforementioned growth rate and same has been converted into current prices by applying the investment deflator of 1999-2000 base. The results of this exercise are also presented in the table 3 under the title of corrected series.

Table 3: Backward Series of GFCF in Forestry: Private Sector

Years	Constant Prices						Current Prices					
	1999-00 base				2005-06 base		1999-00 base				2005-06 base	
	Published GFCF Rs. Mill.	Gr. (%)	Corrected GFCF Mill. Rs.	Gr. (%)	GFCF Rs. Mill.	Gr. (%)	Published GFCF Rs. Mill.	Gr. (%)	Corrected GFCF Mill. Rs.	Gr. (%)	GFCF Rs. Mill.	Gr. (%)
1999-00	187		187		205		187		187		174	
2000-01	275	46.93	196	5.08	212	3.5	284	51.87	203	8.61	183	5.49
2001-02	54	-80.3	206	5.08	219	3.5	58	-79.58	221	8.94	204	11.17
2002-03	191	253.68	217	5.08	227	3.5	217	274.14	246	11.16	208	2.08
2003-04	157	-18.13	228	5.08	235	3.5	228	5.08	332	34.87	226	8.57
2004-05	135	-13.68	240	5.08	243	3.5	240	5.08	424	27.92	245	8.5
2005-06	122	-10.13	252	5.08	252	3.5	252	5.08	521	22.87	252	2.75

I (d): Fishing

In 2005-06 base, GFCF of fishing is based on result of study on marine & inland fishing and is being extrapolated at constant prices by applying the growth of fishing crafts. The backward series of GFCF at constant prices has also been compiled by applying the growth rate of fishing crafts for the respective years from 2004-05 to 1999-2000 and same has been converted into current prices by applying the WPI deflator comprising of metal & machinery.

The comparison of GFCF in 1999-2000 base and 2005-06 base is presented in table 4. In 1999-00 base, GFCF in fishing was used to be extrapolated at current prices by compound growth rate of 2.49% between 1999-2000 and 2002-03 from 2003-04 onwards. This compilation practice lead to negative growth rates at constant prices due to impact of deflators. As an exercise, constant estimates of GFCF in 1999-2000 base has been extrapolated by the aforementioned fixed growth rate and same have been inflated by the investment deflator (1999-2000 base). The results have been reported in the table 4 under the 'corrected' columns for comparison purpose. In 2005-06 base, GFCF for the year 2003-04 has registered a negative growth at constant prices due to decrease in number of fishing crafts whereas negative growth in

GFCF at current prices has also been noted during 2002-03 and 2005-06 due to deflators (-1.37% during 2002-03 and -0.72% during 2005-06).

Table 4: Backward Series of GFCF in Fishing: Private Sector

Years	Constant Prices						Current Prices					
	1999-00 base			2005-06 base			1999-00 base			2005-06 base		
	Published GFCF Rs. Mill.	Gr. (%)	Corrected GFCF Mill. Rs.	Gr. (%)	GFCF Rs. Mill.	Gr. (%)	Published GFCF Rs. Mill.	Gr. (%)	Corrected GFCF Mill. Rs.	Gr. (%)	GFCF Rs. Mill.	Gr. (%)
1999-00	1199		1199		1461		1199		1199		1240	
2000-01	1186	-1.07	1229	2.49	1471	0.69	1226	2.25	1270	5.93	1272	2.62
2001-02	1189	0.23	1259	2.49	1492	1.38	1274	3.92	1350	6.26	1385	8.90
2002-03	1139	-4.21	1291	2.49	1499	0.52	1291	1.33	1463	8.42	1373	-0.86
2003-04	909	-20.15	1323	2.49	1474	-1.68	1323	2.49	1925	31.55	1417	3.14
2004-05	766	-15.81	1356	2.49	1483	0.56	1356	2.49	2402	24.77	1493	5.42
2005-06	671	-12.35	1390	2.49	1489	0.43	1390	2.49	2878	19.84	1489	-0.29

Table 5: Backward Series of GFCF in Agriculture: Private Sector

Years	Constant Prices						Current Prices					
	1999-00 base			2005-06 base			1999-00 base			2005-06 base		
	Published GFCF Rs. Mill.	Gr. (%)	Corrected GFCF Rs. Mill.	Gr. (%)	GFCF Rs. Mill.	Gr. (%)	Published GFCF Rs. Mill.	Gr. (%)	Corrected GFCF Rs. Mill.	Gr. (%)	GFCF Rs. Mill.	Gr. (%)
1999-00	72513		115230		215049		72514		115230		155560	
2000-01	64307	-11.32	109080	-5.34	214646	-0.19	66468	-8.34	112745	-2.16	155932	0.24
2001-02	61250	-4.75	108844	-0.22	215600	0.44	65636	-1.25	116637	3.45	161418	3.52
2002-03	65537	7.00	116025	6.60	229808	6.59	74293	13.19	131526	12.77	176503	9.35
2003-04	55704	-15.00	112364	-3.15	234963	2.24	81050	9.10	163490	24.30	198072	12.22
2004-05	76264	36.91	119293	6.17	240911	2.53	135085	66.67	211304	29.25	226526	14.37
2005-06	69302	-9.13	118305	-0.83	254745	5.74	143538	6.26	245033	15.96	254745	12.46

II: INDUSTRY SECTOR

II (a): Mining and Quarrying

i) Private Sector

GFCF estimates in mining & quarrying industry in 1999-2000 base at current and constant prices were used to be compiled by including FDI but same has been excluded from the estimates in order to make them comparable with those in 2005-06 base. The revised growth rates of 1999-2000 base have been used to calculate GFCF at current prices for the years 2005-06 to 1999-00 in the backward series. GFCF at constant prices for backward series for 2005-06 to 1999-2000 has been derived by applying the specifically compiled WPI deflator. The comparison of GFCF estimates in the private sector at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 6(a).

Table 6(a) : Backward Series of GFCF in Mining & Quarrying: Private Sector (Rs. Million)

Year	Current Prices						WPI Deflators (2005-06=100)	Constant Prices				
	1999-2000 base			2005-06 base				1999-2000 base			2005-06 base	
	Published GFCF	GFCF Exc. FDI	Gr. (%)	GFCF	Gr. (%)			Published GFCF	GFCF Exc. FDI	Gr. (%)	GFCF	Gr. (%)
1999-00	13108	8982		16841		70.11	13108	8982		24022		
2000-01	13230	8280	-7.81	15525	-7.81	83.96	12805	8014	-10.77	18491	-23.02	
2001-02	26710	9886	19.39	18535	19.39	91.12	24624	9113	13.71	20341	10.00	
2002-03	48252	37240	276.71	69822	276.71	95.95	41589	32098	252.20	72766	257.73	
2003-04	12701	988	-97.35	1852	-97.35	96.77	8330	648	-97.98	1914	-97.37	
2004-05	18384	6809	589.17	12766	589.17	91.41	9629	3566	450.38	13967	629.60	
2005-06	31323	12176	78.82	22829	78.82	100.00	13915	5409	51.67	22829	63.45	

ii) Public Sector

In the estimates of backward series from 2004-05 to 1999-2000, GFCF of mining & quarrying industry in the public sector at current prices has been derived by applying the growth rates of current series in 1999-2000 base for the respective years. GFCF estimates in mining & quarrying industry in public sector during 2005-06 has witnessed a significant difference between 1999-2000 base and 2005-06 base at both current and constant prices mainly due to plant & machinery which decreased from Rs.2809 million (1999-2000 base) to Rs.1784 million (2005-06 base) and mineral exploration cost Rs.13612 million (1999-2000 base) to Rs.3681 million (2005-06 base). GFCF at constant prices has been derived by applying the specifically compiled WPI deflator. The comparison of GFCF estimates in the public sector at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 6(b).

Table 6(b): Backward Series of GFCF in Mining & Quarrying: Public Sector (Rs. Million)

Year	Current Prices				WPI Deflators (2005- 06=100)	Constant Prices			
	1999-2000 base		2005-06 base			1999-2000 base		2005-06 base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	5113		1719		70.11	5113		2451	
2000-01	20463	300.22	6878	300.22	83.96	19805	287.35	8192	234.18
2001-02	22285	8.90	7491	8.90	91.12	20545	3.73	8221	0.35
2002-03	29178	30.93	9808	30.93	95.95	25149	22.41	10221	24.33
2003-04	5950	-79.61	3142	-67.96	96.77	6131	-75.62	3247	-68.23
2004-05	14994	152.0	5040	60.40	91.41	7853	28.10	5514	69.81
2005-06	18246	21.69	6133	21.69	100.00	8106	3.21	6133	11.23

Table 6(c): Backward Series of total GFCF in Mining & Quarrying: Public and Private Sectors (Rs. Million)

Year	Current Prices					Constant Prices				
	1999-2000 base			2005-06 base		1999-2000 base			2005-06 base	
	Published GFCF	GFCF Exc. FDI	Gr. (%)	GFCF	Gr. (%)	Published GFCF	GFCF Exc. FDI	Gr. (%)	GFCF	Gr. (%)
1999-00	18221	14095		18559		18221	14095		26473	
2000-01	33693	28743	103.93	22403	20.71	32610	27819	97.37	26683	0.79
2001-02	48995	32171	11.92	26025	16.17	45169	29658	6.61	28561	7.04
2002-03	77430	66418	106.46	79629	205.97	66738	57247	93.02	82987	190.56
2003-04	18651	10336	-84.44	4995	-93.73	12232	6779	-88.16	5161	-93.78
2004-05	33378	21803	110.94	17806	256.51	17482	11420	68.46	19480	277.43
2005-06	49569	30422	39.53	28962	62.65	22021	13515	18.35	28962	48.67

II (b): Manufacturing

The manufacturing sector is comprised of large scale, small scale and slaughtering industries. The GFCF estimates in the backward series have been derived separately for the aforementioned industries. The detail is described as under:-

i) Large Scale Manufacturing Industries (LSMI)

1. Private Sector

For readers interested in the complete exposure of the GFCF compilation methodology of LSM, the PBS publication titled "National Accounts of Pakistan: Change of base from 1999-

2000 to 2005-06” is referred. However, the backward series of GFCF has been compiled in following steps:-

- FDI, which was included in the GFCF estimates of 1999-2000 base, has been excluded in 2005-06 base series.
- The GFCF of in-production LSM units comprising of listed and non-listed companies has been exactly incorporated from 1999-2000 base estimates because they were compiled through direct survey/census.
- The GFCF expenditure incurred on under-construction LSM units is based on financing data obtained from banks, Development Finance Institutions (DFI's), leasing and modarba companies. This expenditure has been retained from 1999-2000 base estimates.
- In the 2005-06 base estimates, a new component of owner's equity has been added in the GFCF estimates of under-construction units and is taken as 50% of the actual financing provided by the sources. By convention, owner's equity must be the same amount as described above. Therefore, the GFCF of under-construction units in the backward series has been enhanced by exactly the same amount compiled in the 1999-2000 base series.

All of the above mentioned components have been added-up in order to obtain the overall backward series of GFCF of LSM at current prices for the years from 2004-05 to 1999-2000. The GFCF at constant prices has been derived by applying the WPI general deflator with 2005-06 as the base year. The comparison of GFCF estimates at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 7(a).

Table 7(a) : Backward Series of GFCF in LSM: Private Sector (Rs. Million)

Year	Current Prices					Deflators (WPI Gen.) (2005-06=100)	Constant Prices				
	1999-2000 base			2005-06 base			1999-2000 base			2005-06 base	
	Published GFCF	GFCF Exc. FDI	Gr. (%)	GFCF	Gr. (%)		Published GFCF	GFCF Exc. FDI	Gr. (%)	GFCF	Gr. (%)
1999-00	99345	83319		91144		68.88	99345	83319		132323	
2000-01	114933	102349	22.84	113191	24.19	73.16	107908	96093	15.33	154717	16.92
2001-02	141607	134299	31.22	137619	21.58	74.63	128186	121571	26.51	184402	19.19
2002-03	134666	125801	-6.33	132955	-3.39	78.85	119724	111844	-8.00	168618	-8.56
2003-04	161162	151367	20.32	167225	25.78	85.08	113303	106417	-4.85	196550	16.57
2004-05	193448	178199	17.73	201701	20.62	90.83	115865	106732	0.30	222064	12.98
2005-06	254727	239504	34.40	277719	37.69	100.00	136935	128751	20.63	277719	25.06

2. Public Sector

In the public sector, GFCF of LSM is compiled based upon the data obtained through annual census of public corporations like Pakistan Steel Mills etc. In 2005-06 base, GFCF of some companies amounting to Rs. 2.7 billion was shifted to private sector. However, for the remaining years no change has been made at current prices because of actual data which was obtained from the public sector enterprises at the time of compilation but at constant prices, the change can be noticed due to change in deflator. The comparison of GFCF of LSM sector at both current and constant prices is presented in table 7(b).

Table 7(b): Backward Series of GFCF in LSM: Public Sector (Rs.Million)

Year	Current Prices				Deflators (WPI Gen.) (2005- 06=100)	Constant Prices			
	1999-2000 base		2005-06 base			1999-2000 base		2005-06 base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	21187		21187		68.88	21187		30759	
2000-01	13893	-34.43	13893	-34.43	73.16	13044	-38.43	18990	-38.26
2001-02	1398	-89.94	1398	-89.94	74.63	1265	-90.30	1873	-90.14
2002-03	1400	0.14	1400	0.14	78.85	1245	-1.58	1776	-5.22
2003-04	3410	143.57	3410	143.57	85.08	2397	92.53	4008	125.74
2004-05	2140	-37.24	2140	-37.24	90.83	1282	-46.52	2356	-41.22
2005-06	6296	194.21	3609	68.66	100.00	3385	164.04	3609	53.20

Table 7(c): Backward Series of total GFCF in LSM: Public and Private Sectors (Rs. Million)

Year	Current Prices					Constant Prices				
	1999-2000 base			2005-06 base		1999-2000 base			2005-06 base	
	Published GFCF	GFCF Exc. FDI	Gr. (%)	GFCF	Gr. (%)	Published GFCF	GFCF Exc. FDI	Gr. (%)	GFCF	Gr. (%)
1999-00	120532	104506		112331		120532	104506		163082	
2000-01	128826	116242	11.23	127084	13.13	120952	109137	4.43	173707	6.51
2001-02	143005	135697	16.74	139017	9.39	129451	122836	12.55	186275	7.24
2002-03	136066	127201	-6.26	134355	-3.35	120969	113089	-7.93	170393	-8.53
2003-04	164572	154777	21.68	170635	27.00	115700	108814	-3.78	200558	17.70
2004-05	195588	180339	16.52	203841	19.46	117147	108014	-0.74	224420	11.90
2005-06	261023	245800	36.30	281329	38.01	140320	132136	22.33	281329	25.36

ii) Small Scale Manufacturing Industries (SSMI)

In 1999-2000 base estimates, GFCF of SSMI at constant prices was used to be extrapolated by a fixed growth rate of 9.44%. The same growth rate has been used to obtain the backward estimates of GFCF at constant prices in 2005-06 base. The GFCF at current prices in 1999-2000 base was used to be calculated by applying the specifically compiled investment deflator. However, in 2005-06 base estimates, GFCF at current prices is derived by applying the WPI deflator comprising of food, beverage, tobacco, textile & leather products.

The comparison of GFCF estimates at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 8. The significant differences in the volume of GFCF at both current and constant prices have been emerged in 1999-2000 base and 2005-06 base. This is due to use of survey results in 2005-06 base estimates i.e. Rs.5.78 billion as compared to the 67.77 billion at current prices in 1999-2000 base. It is pertinent to mention that GFCF estimates in 1999-2000 base were derived from the results of the study and were on higher side. The complete detail has been given in the PBS publication titled "National Accounts of Pakistan: Change of base from 1999-2000 to 2005-06".

Table 8: Backward Series of GFCF Small Scale Manufacturing Industries (Rs. Million)

Year	Constant Prices				Deflator* (2005-06=100)	Current Prices			
	1999-2000 base		2005-06 base			1999-2000 base		2005-06 base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	19732		3365		81.94	19732		2757	
2000-01	21595	9.44	3683	9.44	84.23	22191	12.46	3102	12.50
2001-02	23633	9.44	4030	9.44	84.53	25047	12.87	3407	9.83
2002-03	25864	9.44	4411	9.44	87.43	28851	15.19	3856	13.20
2003-04	28306	9.44	4827	9.44	94.07	39354	36.40	4541	17.75
2004-05	30978	9.44	5283	9.44	95.70	51505	30.88	5055	11.33
2005-06	33902	9.44	5781	9.44	100.00	65767	27.69	5781	14.36

* WPI Food, Beverage, Tobacco, Textile & Leather Products

iii) Slaughtering

The GFCF estimates of slaughtering industry at constant prices in 1999-2000 base were used to be extrapolated by the growth rate of meat. In 2005-06 base estimates, the same methodology has been adopted but revised growth rate of meat, as explained under slaughtering section in Chapter 2, has been used to obtain the backward estimates of GFCF at constant prices. The GFCF at current prices in 1999-2000 base was used to be calculated by applying the specifically compiled investment deflator. However, in 2005-06 base estimates, GFCF at current prices has been derived by applying the WPI meat deflator.

The comparison of GFCF estimates at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 9. The significant differences in the volume of GFCF at both current and constant prices have been noted for the year 1999-2000 in 1999-2000 base and 2005-06 base. This is due to adoption of results of study i.e. Rs.81.4 million in 1999-2000 base estimates which reported huge expenditure on GFCF incurred on two model slaughter houses in Hyderabad and Balochistan sponsored by Asian Development Bank.

Table 9: Backward Series of GFCF of Slaughtering Industries (Rs.Million)

Year	Constant Prices				Deflator (WPI Meat) (2005-06=100)	Current Prices			
	1999-2000 base		2005-06 base			1999-2000 base		2005-06 base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	81.398		5.984		53.39	81.398		3.195	
2000-01	3.210	-96.06	6.212	3.81	53.78	3.304	-95.94	3.341	4.56
2001-02	3.308	3.05	6.452	3.86	54.87	3.511	6.27	3.541	5.98
2002-03	3.405	2.93	6.707	3.95	59.75	3.775	7.52	4.007	13.18
2003-04	3.487	2.41	6.971	3.94	73.97	4.760	26.09	5.157	28.68
2004-05	3.571	2.41	7.250	4.00	90.99	5.785	21.53	6.597	27.92
2005-06	4.013	12.38	7.544	4.05	100.00	7.544	30.41	7.544	14.36

II (c): Electricity Generation & Distribution and Gas Distribution

The methodology adopted for compilation of backward series of GFCF for electricity generation & distribution and gas distribution is outlined as under:-

i) Private Sector

GFCF estimates in electricity & gas industry in 1999-2000 base at current and constant prices were used to be compiled by including FDI but same has been excluded from the estimates in order to make them comparable with those in 2005-06 base. The revised growth rates of 1999-2000 base have been used to calculate GFCF at current prices for the years 2005-06 to 1999-00 in the backward series. GFCF at constant prices for backward series for 2005-06 to 1999-2000 has been derived by applying the specifically compiled WPI deflator. The comparison of GFCF estimates in the private sector at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 10(a).

Table 10(a) : Backward Series of GFCF in Electricity & Gas: Private Sector (Rs. Million)

Year	Current Prices					WPI Deflator (2005- 06=100)	Constant Prices				
	1999-2000 base			2005-06 base			1999-2000 base			2005-06 base	
	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)		Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)
1999-00	15169	10588		2651		70.11	15169	10588		3782	
2000-01	15258	12903	21.86	3231	21.86	83.96	14796	12512	18.17	3848	1.76
2001-02	35141	32905	155.02	8240	155.02	91.12	32632	30556	144.20	9043	134.98
2002-03	26417	24501	-25.54	6135	-25.54	95.95	23001	21332	-30.19	6394	-29.29
2003-04	3050	2226	-90.91	557	-90.91	96.77	2044	1492	-93.01	576	-90.99
2004-05	11612	7261	226.19	1818	226.19	91.41	6280	3927	163.23	1989	245.32
2005-06	32372	13206	81.88	3307	81.88	100.00	14868	6065	54.46	3307	66.25

ii) Public Sector

In the public sector estimates of GFCF of electricity & gas industry in 1999-2000 base, water supply and sanitation was also included. For the compilation of backward series of GFCF at current prices, the water supply and sanitation has been excluded from the data and revised growth rates of 1999-2000 base have been applied to GFCF at current prices for the years 2005-06 to 1999-00. GFCF at constant prices has been derived by applying the specifically compiled WPI deflator. The comparison of GFCF estimates at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 10(b).

Table 10(b): Backward Series of GFCF in Electricity & Gas: Public Sector (Rs.Million)

Year	Current Prices				WPI Deflators (2005- 06=100)	Constant Prices			
	1999-2000 base		2005-06 base			1999-2000 base		2005-06 base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	52185		71756		70.11	52185		102356	
2000-01	52370	0.35	72011	0.35	83.96	50785	-2.68	85769	-16.20
2001-02	21724	-58.52	29871	-58.52	91.12	20173	-60.28	32783	-61.78
2002-03	31145	43.37	42826	43.37	95.95	27118	34.43	44632	36.14
2003-04	22222	-28.65	30556	-28.65	96.77	14890	-45.09	31577	-29.25
2004-05	28438	27.97	39103	27.97	91.41	15379	3.28	42780	35.48
2005-06	37423	31.60	51458	31.60	100.00	17188	11.76	51458	20.29

Table 10(c): Backward Series of total GFCF in Electricity & Gas: Public and Private Sectors (Rs. Million)

Year	Current Prices					Constant Prices				
	1999-2000 base			2005-06 base		1999-2000 base			2005-06 base	
	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)
1999-00	67354	62773		74408		67354	62773		106138	
2000-01	67628	65273	3.98	75242	1.12	65582	63298	0.84	89618	-15.56
2001-02	56865	54629	-16.31	38111	-49.35	52804	50728	-19.86	41826	-53.33
2002-03	57562	55646	1.86	48961	28.47	50119	48450	-4.49	51026	22.00
2003-04	25272	24448	-56.06	31113	-36.45	16934	16382	-66.19	32153	-36.99
2004-05	40050	35699	46.02	40922	31.52	21659	19306	17.85	44769	39.24
2005-06	69795	50629	41.82	54765	33.83	32056	23253	20.45	54765	22.33

II (d): Construction**i) Private Sector**

In 1999-2000 base estimates, GFCF of construction at current prices was used to be compiled as the sum of imported and domestically produced construction machinery. The data sources remained unchanged in 2005-06 base with the exception of FDI which was included in the 1999-2000 base estimates and has been excluded from the estimates in order to make them comparable with those in 2005-06 base. Further, in 2005-06 base WPI building material deflator is being used to convert the GFCF estimates into constant prices whereas in 1999-2000 base PPI deflator was used.

Table 11(a) : Backward Series of GFCF Construction: Private Sector (Rs. Million)

Year	Current Prices					Deflator (WPI Bul. Mat.) (2005-06=100)	Constant Prices				
	1999-2000 base			2005-06 base			1999-2000 base			2005-06 base	
	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)		Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)
1999-00	12373	11281		8459		67.38	12373	11281		12554	
2000-01	11360	10638	-5.70	7958	-5.92	69.36	10268	9615	-14.76	11473	-8.61
2001-02	11689	10904	2.50	7909	-0.62	70.12	10289	10289	7.01	11279	-1.69
2002-03	4178	3151	-71.10	2361	-70.15	71.37	3871	2919	-71.63	3308	-70.67
2003-04	6608	4763	51.16	3474	47.14	87.72	5175	3730	27.77	3960	19.72
2004-05	13418	13418	181.71	11461	229.91	99.73	9903	9903	165.49	11492	190.18
2005-06	19248	13886	3.49	14597	27.36	100.00	14287	10307	4.08	14597	27.02

ii) Public Sector

In the public sector, GFCF of construction industry in 1999-2000 base as well as in 2005-06 base is compiled based on the expenditure incurred on capital assets by development authorities such as National Construction Company, Indus Basin etc. However, in 2005-06 base GFCF under improvement of land and costs of ownership transferred has been taken as 10% of the total expenditures, whereas in 1999-2000 base it was mistakenly taken as a whole.

Table 11(b): Backward Series of GFCF Construction: Public Sector (Rs. Million)

Year	Current Prices				Deflator (WPI Bul.Mat) (2005- 06=100)	Constant Prices			
	1999-2000 base		2005-06 base			1999-2000 base		2005-06 base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	2744		2551		67.38	2744		3790	
2000-01	2229	-18.77	2072	-18.78	69.36	2015	-26.57	2987	-21.19
2001-02	3474	55.85	3229	55.84	70.12	3058	51.76	4605	54.15
2002-03	2952	-15.03	2744	-15.02	71.37	2735	-10.56	3845	-16.51
2003-04	3505	18.73	3258	18.73	87.72	2745	0.37	3714	-3.40
2004-05	4406	25.71	4096	25.72	99.73	3252	18.47	4107	10.58
2005-06	6858	55.65	6375	55.64	100.00	5091	56.55	6375	55.22

Table 11(c): Backward Series of total GFCF in Construction: Private and Public Sectors (Rs. Million)

Year	Current Prices					Constant Prices				
	1999-2000 base			2005-06 base		1999-2000 base			2005-06 base	
	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)
1999-00	15117	14025		11010		15117	14025		16345	
2000-01	13589	12867	-8.26	10030	-8.90	12283	11630	-17.07	14461	-11.53
2001-02	15163	14378	11.74	11138	11.05	13347	13347	14.76	15884	9.84
2002-03	7130	6103	-57.55	5105	-54.17	6606	5654	-57.63	7153	-54.97
2003-04	10113	8268	35.47	6732	31.87	7919	6475	14.51	7674	7.29
2004-05	17824	17824	115.58	15557	131.09	13155	13155	103.16	15599	103.26
2005-06	26106	20744	16.38	20972	34.81	19378	15398	17.05	20972	34.44

III: SERVICES SECTORS

III (a): Wholesale and Retail Trade (WRT)

In 1999-2000 base GFCF estimates of WRT were used to be compiled primarily at current prices by extrapolating at fixed growth rate of 20.8% which were then used to be converted into constant prices by applying the investment deflator. However, in 2005-06 base, GFCF estimates of WRT industry are compiled at constant prices by applying the constant growth rate of gross value added of same sector. The same method has been applied for the compilation of GFCF estimates at constant prices in the backward series from 2005-06 to 1999-2000. The GFCF estimates at constant prices have been converted into current prices by applying the WPI general deflator with 2005-06 as the base year.

The comparison of GFCF estimates at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 12. The significant difference between the growth rates of GFCF at current prices in 1999-2000 base and 2005-06 base has been observed due to change in compilation methodology i.e. fixed growth rate was applied at current prices in 1999-2000 base as compared to constant growth of GVA at constant prices in 2005-06 base. Further, foreign direct private investment was also used to be included in the GFCF estimates in 1999-2000 base but is not part of GFCF estimates in 2005-06 base.

Table 12: Backward Series of GFCF of Wholesale and Retail Trade Services (Rs.Million)

Year	Constant Prices					Deflators (WPI Gen.) (2005- 06=100)	Current Prices				
	1999-2000 base			2005-06 base			1999-2000 base			2005-06 base	
	Publis hed GFCF	GFCF Exc.FDI	Growt h (%)	GFCF	Growt h (%)		Publishe d GFCF	GFCF Exc.FDI	Growt h (%)	GFCF	Growt h (%)
1999-00	7111	7111		13815		68.88	7111	7111		9516	
2000-01	8369	8369	17.69	14636	5.95	73.16	8589	8589	20.78	10708	12.53
2001-02	9925	9925	18.59	14991	2.43	74.63	10375	10375	20.79	11188	4.48
2002-03	11692	11692	17.80	15988	6.65	78.85	12533	12533	20.80	12607	12.68
2003-04	13760	12118	3.64	17701	10.71	85.08	17192	15140	20.80	15060	19.46
2004-05	15165	12972	7.05	20175	13.98	90.83	21381	18289	20.80	18324	21.68
2005-06	18123	13734	5.87	22095	9.52	100.00	29157	22095	20.81	22095	20.58

III (b): Transport, Storage and Communication

i) Private Sector

For Private sector's GFCF compilation during 2005-06 base, a change in the methodology has been adopted as compared to 1999-00 base. The major changes are in the percentage of taxes and duties as compared to previous methodology and FDI and foreign loans are not included as per 2005-06 base methodology for compiling GFCF estimates. The backward estimates of GFCF at current prices are derived by using available data on various GFCF components. The constant estimates at 2005-06 base year's prices are derived by using WPI Other Transport Goods with 2005-06 as the base years.

The comparison of GFCF at current and constant prices in 1999-00 base and 2005-06 base is provided in table 13(a) below. The volume estimates at current prices on the 2005-06 base are on the lower side as compared to that of 1999-00 base. The primary reason behind this decrease is the change in the methodology of compilation of private sector's GFCF. Various components have been removed during 2005-06 base which were included in the previous base e.g. FDI and foreign loans.

As may be noted from the growth rates of estimates of the two base years, there is sharp increase in the growth rate in the year 2002-03. The basic reason behind this increase is nearly 85% increase in the CIF value of the import of transport machinery. It is the primary constituent component of the GFCF in the private sector. Moreover an increase of more than 50% was also observed in LSM which is another major constituent component of the GFCF in private sector in transport & communication. The consistent growth of more than 60% percent in the year 2002-03 and afterwards is primarily because of these two components.

Table 13(a): Backward Series of GFCF in Transport & Communication: Private Sector (Rs.Million)

Year	Current Prices					Deflator (WPI Transportable goods) (2005- 06=100)	Constant Prices				
	1999-2000 base			2005-06 base			1999-2000 base			2005-06 base	
	Publis hed GFCF	GFCF exc. FDI	Growt h (%)	GFCF	Growt h (%)		Publis hed GFCF	GFCF exc. FDI	Growt h (%)	GFCF	Growt h (%)
1999-00	23868	22263		23262		56.51	23868	22263		41164	
2000-01	31697	26934	20.98	27884	19.87	59.74	30590	25994	16.76	46676	13.39
2001-02	31476	29388	9.11	29580	6.08	60.76	29370	27421	5.49	48684	4.30
2002-03	51381	44709	52.14	47992	62.24	66.43	45979	40009	45.90	72245	48.40
2003-04	86951	73669	64.77	79994	66.68	68.49	61918	52460	31.12	116796	61.67
2004-05	153558	121986	65.59	133038	66.31	79.64	91431	72632	38.45	167049	43.03
2005-06	312549	196338	60.95	214628	61.33	100.00	160818	101023	39.09	214628	28.48

WPI other transport goods at 2005-06 prices is used for deriving constant estimates of GFCF for the private sector. Constant series also depicts the similar trend as that of the current series of GFCF and the explanation provided there holds in this case as well.

ii) Public Sector

The methodology of compiling the GFCF estimates of aforementioned industry in the public sector has been remained same in 1999-2000 base as well as in 2005-06 base. Consequently, growth rates of GFCF at current prices are same. The comparison of the estimates of current and constant estimates of GFCF compiled at 1999-00 base and 2005-06 base years has been provided in the table 13(b) below. The same deflator i.e. WPI other transport goods with 2005-06 as the base year, has been used for converting the estimates at current prices into constant prices. The estimates and growth rates are different at constant prices in 1999-2000 base and 2005-06 base due to change in deflator but trend of growth rates is same.

Table 13(b): Backward Series of GFCF in Transport & Communication: Public Sector (Rs. Million)

Year	Current Prices				Deflator (WPI Transportable goods) (2005-06=100)	Constant Prices			
	1999-2000 base		2005-06 base			1999-2000 base		2005-06 base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	56213		56213		56.51	56213		99474	
2000-01	72982	29.83	72982	29.83	59.74	70432	25.29	122166	22.81
2001-02	54884	-24.80	54884	-24.80	60.76	51212	-27.29	90329	-26.06
2002-03	31483	-42.64	31483	-42.64	66.43	28173	-44.99	47393	-47.53
2003-04	61695	95.96	61695	95.96	68.49	43933	55.94	90079	90.07
2004-05	71416	15.76	71416	15.76	79.64	42522	-3.21	89674	-0.45
2005-06	80102	12.16	80102	12.16	100.00	41215	-3.07	80102	-10.67

The aggregate estimates of overall transport & communication industry are provided in the table 13(c) below for comparison purposes.

Table 13(c): Backward Series of GFCF in Transport & Communication: Private & Public Sectors (Rs. Million)

Year	Current Prices					Constant Prices				
	1999-2000 base			2005-06 base		1999-2000 base			2005-06 base	
	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)
1999-00	80081	78476		79475		80081	78476		140639	
2000-01	104679	99916	27.32	100866	26.92	101022	96426	22.87	168842	20.05
2001-02	86360	84272	-15.66	84464	-16.26	80582	78633	-18.45	139013	-17.67
2002-03	82864	76192	-9.59	79475	-5.91	74151	68182	-13.29	119637	-13.94
2003-04	148646	135364	77.66	141689	78.28	105851	96393	41.38	206875	72.92
2004-05	224974	193402	42.88	204454	44.30	133953	115154	19.46	256722	24.10
2005-06	392651	276440	42.94	294730	44.15	202033	142238	23.52	294730	14.81

III (c): Finance & Insurance Sector (FIS)

GFCF compilation in the FIS is based upon direct data collected from the source agencies on quarterly/annual basis. The methodology of compilation of the GFCF has been the same in 1999-2000 base and 2005-06 base. The methodology of the compilation of the backward series of the GFCF of above mentioned industry in private and public sectors is described below:-

i) Private Sector

The private sector GFCF of FIS in the backward series from 2005-06 to 1999-2000 has been compiled in following steps:-

- Most of the current data in 1999-2000 base has been used to compile the GFCF at current prices in the backward series.
- The GFCF of stock exchanges and stock brokers (new addition in 2005-06 base) has been compiled by applying their respective growth rates of GVA.
- The data on GFCF of private insurance companies was available and same has been used in the backward series. The GFCF of life and non-life insurance companies has been estimated by applying their proportions in the total for the year 2005-06. The GFCF of insurance agents (new addition in 2005-06 base) has been estimated as 10% of GFCF of public & private life insurance companies.
- The GFCF of Development Finance Institutions (DFI's), which was included in the public sector estimates in 1999-2000 base from 1999-00 to 2003-04, has been included in the private sector for those years. DFI's data was already part of private sector estimates of GFCF for the years 2004-05 & 2005-06 and same has been retained accordingly.
- Foreign direct investment, which was included in the private sector estimates of GFCF in 1999-2000 base, has been excluded in order to avoid double counting. Similarly, GFCF of mutual companies has also been excluded in 2005-06 base estimates.

The aforementioned components have been added-up to compile the GFCF at current prices. The GFCF of private sector at constant prices has been derived by applying the WPI general deflator with 2005-06 as the base year. The comparison of GFCF in the private sector of FIS at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 14(a). The growth rates of GFCF in 1999-2000 base and 2005-06 base are comparable. However, in 2005-06 base estimates, the GFCF for the year 2000-01 has registered negative growth rates due to decrease in DFI's (from Rs.327.5 million in 1999-2000 to Rs.101.4 million in 2000-01) and stock brokers (from Rs.791.0 million in 1999-2000 to Rs.551.0 million in 2000-01), both being the new addition in private sector GFCF.

Table 14(a) : Backward Series of GFCF Financial & Insurance Sector: Private Sector (Rs. Million)

Year	Current Prices					Deflator (WPI Gen.) (2005- 06=100)	Constant Prices				
	1999-2000 base			2005-06 base			1999-2000 base			2005-06 base	
	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)		Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)
1999-00	6312	4469		5750		68.88	6312	4469		8348	
2000-01	2827	4716	5.52	5410	-5.92	73.16	2745	4579	2.46	7394	-11.43
2001-02	7996	7996	69.54	9146	69.06	74.63	7519	7518	64.17	12255	65.73
2002-03	20897	8740	9.3	10150	10.98	78.85	19018	7953	5.79	12872	5.04
2003-04	26599	12698	45.29	14504	42.89	85.08	20964	10007	25.83	17047	32.43
2004-05	30520	14529	14.41	15836	9.18	90.83	21102	10042	0.35	17434	2.27
2005-06	38692	19007	30.83	20360	28.57	100.00	23772	11678	16.29	20360	16.78

ii) Public Sector

The composition and methodology of compilation of GFCF in the public sector of FIS has mainly remained the same except the shifting of DFI's for the years 1999-00 to 2003-04 to private sector. Accordingly, the public sector data available in 1999-2000 base has been retained. Further, the GFCF figures for public insurance have been further divided into public life, public nonlife and reinsurance by using proportion of 2005-06. The GFCF estimates at constant prices have been derived by applying WPI general deflator with 2005-06 as the base year. The comparison of GFCF in the public sector of FIS at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 14(b). The difference in growth rates of GFCF in 1999-2000 base and 2005-06 base has been noted primarily due to exclusion of DFI's from the data in 2005-06 base, which is now included in private sector. The difference in growth rate during 2004-05 in 1999-2000 base and 2005-06 base is due to change in figures of 2003-04 while for 2005-06, it is mainly due to revision in the insurance data.

Table 14(b): Backward Series of GFCF Financial & Insurance Sector: Public Sector (Rs. Million)

Year	Current Prices				Deflator (WPI Gen.) (2005-06=100)	Constant Prices			
	1999-2000 base		2005-06 base			1999-2000 base		2005-06 base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	3680		3352		68.88	3680		4867	
2000-01	2277	-38.11	2176	-35.09	73.16	2211	-39.91	2974	-38.89
2001-02	2162	-5.04	1730	-20.49	74.63	2033	-8.05	2318	-22.06
2002-03	2469	14.2	2228	28.81	78.85	2247	10.53	2826	21.92
2003-04	1346	-45.48	1128	-49.4	85.08	1061	-52.78	1325	-53.11
2004-05	1060	-21.23	1060	-5.97	90.83	733	-30.91	1167	-11.92
2005-06	2318	118.55	1878	77.09	100.00	1424	94.27	1878	60.85

Table 14(c): Backward Series of total GFCF Financial & Insurance Sector: Public and Private Sectors (Rs. Million)

Year	Current Prices					Constant Prices				
	1999-2000 base			2005-06 base		1999-2000 base			2005-06 base	
	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)	Published GFCF	GFCF exc. FDI	Growth (%)	GFCF	Growth (%)
1999-00	9992	8149		9103		9992	8149		13215	
2000-01	5104	6993	-14.18	7586	-16.67	4957	6790	-16.68	10368	-21.54
2001-02	10158	10158	45.26	10876	43.37	9552	9551	40.65	14573	40.55
2002-03	23366	11209	10.34	12378	13.82	21265	10200	6.80	15699	7.73
2003-04	27945	14045	25.3	15631	26.28	22025	11068	8.51	18372	17.03
2004-05	31580	15589	11	16896	8.09	21835	10775	-2.65	18602	1.25
2005-06	41009	21325	36.79	22238	31.62	25196	13102	21.60	22238	19.55

III (d): Housing Services

In 2005-06 base, GFCF estimates of housing services industry at constant prices are compiled by applying the fixed growth rate (4.0%) of dwellings comprising of 2 room & more between 1998 and 1981 censuses. The same growth rate has been applied for the compilation of GFCF estimates at constant prices in the backward series from 2005-06 to 1999-2000. The GFCF estimates at constant prices have been converted into current prices by applying the WPI building material deflator with 2005-06 as the base year.

The comparison of GFCF estimates at current and constant prices in 1999-2000 base and 2005-06 base is presented in table 15. The GFCF estimates at current prices in 2005-06 base have shown improvement over the estimates in 1999-2000 base due to improved coverage.

Table 15: Backward Series of GFCF of Housing Services (Rs.Million)

Year	Constant Prices				Deflators (WPI Building Material) (2005- 06=100)	Current Prices			
	1999-2000 base		2005-06 base			1999-2000 base		2005-06 base	
	Published GFCF	Growth (%)	GFCF	Growth (%)		Published GFCF	Growth (%)	GFCF	Growth (%)
1999-00	77973		150260		67.38	77973		101247	
2000-01	84926	8.92	156270	4.00	69.36	87448	12.15	108386	7.05
2001-02	82596	-2.74	162521	4.00	70.12	87833	0.44	113961	5.14
2002-03	83163	0.69	169022	4.00	71.37	91379	4.04	120630	5.85
2003-04	87010	4.63	175783	4.00	87.72	110398	20.81	154203	27.83
2004-05	89213	2.53	182814	4.00	99.73	129247	17.07	182320	18.23
2005-06	91648	2.73	190127	4.00	100.00	149167	15.41	190127	4.28

III (e): General Government Services

The GFCF estimates of General Government Services are compiled on the basis of budget documents of Federal, Provincial and District Governments primarily at current prices. The process of compiling the backward series of GFCF for the aforementioned industry is described as under:-

- In 1999-00 base, GFCF estimates at current prices were used to be estimated by taking the object codes including transport, machinery, furniture & fixture, computer, buildings and construction work.
- In the GFCF estimates at federal level in 1999-2000 base, 50% of development IC of Federal Government (Civil) was also used to be taken as the part of GFCF. But in 2005-06 base, feasibility studies (object code 021) and research & surveys (object code 022) have been included in GFCF as Intellectual Property Product (IPP) and the component of others is included in IC instead of applying the ratio.
- In 1999-2000 base commodity purchase -food (object code 093) and store and stock (object code 094) were included in GFCF but in 2005-06 base they are not.
- In 2005-06 base, GFCF of autonomous bodies and social security is also included in the GFCF of federal government.

The significant differences in the volume of GFCF at both current and constant prices have been emerged in 1999-2000 base and 2005-06 base. The detail of methodological changes in General Government Sector has been given in the PBS publication titled “National Accounts of Pakistan: Change of base from 1999-2000 to 2005-06”. The comparison of GFCF estimates at current and constant prices in 1999-2000 base and 2005-06 base is presented in tables 16(a),16(b),16(c) and 16(d) at Federal, Provincial, District and aggregate levels respectively.

Table 16(a): Backward Series of GFCF of General Government: Federal (Rs. Million)

Years	Current Prices				Deflators (WPI Gen.) (2005- 06=100)	Constant Prices			
	1999-00 Base		2005-06 Base			1999-00 Base		2005-06 Base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	24980		17412		68.88	24980		25279	
2000-01	24029	-3.81	16749	-3.81	73.16	23404	-6.31	22894	-9.43
2001-02	29657	23.42	20672	23.42	74.63	28277	20.82	27699	20.99
2002-03	31581	6.49	22013	6.49	78.85	29217	3.32	27918	0.79
2003-04	41304	30.79	28791	30.79	85.08	32357	10.75	33839	21.21
2004-05	38938	-5.73	27141	-5.73	90.83	26694	-17.50	29881	-11.70
2005-06	53522	37.45	37307	37.45	100.00	32017	19.94	37307	24.85

Table 16(b): Backward Series of GFCF of General Government: Provincial (Rs. Million)

Years	Current Prices				Deflators (WPI Gen.) (2005- 06=100)	Constant Prices			
	1999-00 Base		2005-06 Base			1999-00 Base		2005-06 Base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	31763		35138		68.88	31763		51013	
2000-01	31371	-1.23	34704	-1.23	73.16	30555	-3.80	47436	-7.01
2001-02	17729	-43.49	19613	-43.49	74.63	16904	-44.68	26280	-44.60
2002-03	26689	50.54	29525	50.54	78.85	24691	46.07	37444	42.48
2003-04	50059	87.56	54144	83.38	85.08	39216	58.83	63638	69.96
2004-05	71567	42.97	77407	42.97	90.83	49062	25.11	85221	33.91
2005-06	113512	58.61	122774	58.61	100.00	67902	38.40	122774	44.06

Table 16(c): Backward Series of GFCF of General Government: District (Rs. Million)

Years	Current Prices				Deflators (WPI Gen.) (2005- 06=100)	Constant Prices			
	1999-00 Base		2005-06 Base			1999-00 Base		2005-06 Base	
	GFCF	Growth (%)	GFCF	Growth (%)		GFCF	Growth (%)	GFCF	Growth (%)
1999-00	9006		8765		68.88	9006		12725	
2000-01	11586	28.65	11276	28.65	73.16	11285	25.31	15413	21.12
2001-02	23000	98.52	22384	98.52	74.63	21930	94.33	29994	94.61
2002-03	29008	26.12	28232	26.12	78.85	26837	22.38	35804	19.37
2003-04	33423	15.22	32528	15.22	85.08	26183	-2.44	38233	6.78
2004-05	42531	27.25	41393	27.25	90.83	29157	11.36	45572	19.20
2005-06	39042	-8.20	37997	-8.20	100.00	23355	-19.90	37997	-16.62

Table 16(d): Backward Series of GFCF of General Government: Consolidated (Rs. Million)

Years	Current Prices				Constant Prices			
	1999-00 Base		2005-06 Base		1999-00 Base		2005-06 Base	
	GFCF	Growth (%)	GFCF	Growth (%)	GFCF	Growth (%)	GFCF	Growth (%)
1999-00	65749		61315		65749		89017	
2000-01	66986	1.88	62729	2.31	65243	1.88	85742	-3.68
2001-02	70386	5.08	62669	-0.10	67111	5.08	83973	-2.06
2002-03	87278	24.00	79769	27.29	80746	24.00	101166	20.47
2003-04	124786	42.98	115463	44.75	97756	42.98	135711	34.15
2004-05	153036	22.64	145940	26.40	104913	22.64	160674	18.39
2005-06	206076	34.66	198078	35.73	123273	34.66	198078	23.28

III (f): Other Private Services

The other private services has witnessed a number of changes in 2005-06 base estimates and are comprised of distinct activities whose detail has already given in Section C-VI, Chapter 2. Details are also available in the in the PBS publication titled “National Accounts of Pakistan: Change of base from 1999-2000 to 2005-06”.

In 2005-06 base, the GFCF estimates of all the activities included in other private services at current and constant prices are compiled by applying their respective growth rates at current and constant prices. Accordingly, the GFCF estimates at current and constant prices in the backward series from 2005-06 to 1999-2000 have been compiled separately by aforementioned methodology. All the components have been added-up in order to obtain the overall GFCF estimates of the industry and are presented in table 17. The GFCF estimates at current prices in 2005-06 base are mostly on lower side as compared to those in 1999-2000 base due to change in methodology and exclusion of foreign direct private investment . It is also important to note that in 1999-2000 base GFCF estimates of public sector were also used to be included but in 2005-06 base are covered under general government services.

Table 17 : Backward Series of GFCF in Other Private Services: Private Sector (Rs. Million)

Year	Constant Prices					Current Prices				
	1999-2000 base			2005-06 base		1999-2000 base			2005-06 base	
	Published GFCF	GFCF Exc.F DI	Growth (%)	GFCF	Growth (%)	Published GFCF	GFCF Exc.F DI	Growth (%)	GFCF	Growth (%)
1999-00	47164	44233		56607		47164	44233		42690	
2000-01	47691	45683	3.28	59557	5.21	49093	46719	5.62	47073	10.27
2001-02	49607	48426	6.00	63377	6.41	52951	50363	7.80	51859	10.17
2002-03	46411	46411	-4.16	67214	6.05	52254	52254	3.75	56649	9.24
2003-04	50695	48671	4.87	70960	5.57	71455	68602	31.29	62140	9.69
2004-05	55492	51880	6.59	75846	6.89	94259	88123	28.45	71249	14.66
2005-06	61243	57096	10.06	83010	9.45	121193	112988	28.22	83010	16.51

Summary Results: GFCF

The consolidated GFCF of all the industries at current prices in private and public sectors is presented in tables 18(a), 18(b) and 18(c) below:-

Table 18(a):-GROSS FIXED CAPITAL FORMATION
PRIVATE, PUBLIC & GENERAL GOVERNMENT SECTORS
BY ECONOMIC ACTIVITY
[AT CURRENT MARKET PRICES]

Sr. No.	Sectors	Rs. Million						
		1999- 2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
	Total GFCF(A+B+C)	678045	731161	714234	809956	920283	1148902	1456889
A.	Private Sector	459880	498402	552865	639664	701628	880101	1109205
B.	Public Sector	156851	170030	98700	90522	103193	122861	149606
C.	General Government	61315	62729	62669	79769	115463	145940	198078
	Private & Public Sector (A+B)	616731	668432	651565	730186	804821	1002962	1258811
	(Sector wise total)							
1	Agriculture	155632	155948	161515	176537	198075	226531	254795
2	Mining & Quarrying	18559	22403	26025	79629	4995	17806	28962
3	Manufacturing	<u>115091</u>	<u>130189</u>	<u>142427</u>	<u>138215</u>	<u>175181</u>	<u>208903</u>	<u>287117</u>
	i. Large Scale	112331	127084	139017	134355	170635	203841	281328
	ii. Small Scale (including Slaughtering)	2760	3105	3410	3860	4546	5062	5789
4	Electricity Generation and Distr'n & Gas Distribution	74408	75242	38112	48961	31114	40922	54765
5	Construction	11010	10030	11138	5105	6732	15557	20972
6	Wholesale & Retail Trade	9516	10708	11188	12607	15060	18324	22095
7	Transport & Communication	79475	100866	84464	79475	141689	204454	294731
8	Finance & Insurance	9102	7586	10876	12378	15632	16896	22238
9	Housing Services(O.D)	101247	108386	113961	120630	154203	182320	190127
10	Other Private Services	42690	47073	51859	56649	62140	71249	83010

Table 18(b): GROSS FIXED CAPITAL FORMATION
PRIVATE SECTOR BY ECONOMIC ACTIVITY
[AT CURRENT MARKET PRICES]

Sr. No.	Sectors	Rs. Million						
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
A.	Private Sector	459880	498402	552865	639664	701628	880101	1109205
1	Agriculture	155560	155931	161418	176503	198072	226526	254745
2	Mining & Quarrying	16841	15525	18535	69822	1852	12766	22829
3	Manufacturing	<u>93904</u>	<u>116296</u>	<u>141029</u>	<u>136815</u>	<u>171771</u>	<u>206763</u>	<u>283508</u>
	i. Large Scale	91144	113191	137619	132955	167225	201701	277719
	ii. Small Scale (including Slaughtering)	2760	3105	3410	3860	4546	5062	5789
4	Electricity Generation and Distr'n & Gas Distribution	2651	3231	8240	6135	557	1818	3307
5	Construction	8459	7958	7909	2361	3474	11461	14597
6	Wholesale & Retail Trade	9516	10708	11188	12607	15060	18324	22095
7	Transport & Communication	23262	27884	29580	47992	79994	133038	214628
8	Finance & Insurance	5750	5410	9146	10150	14504	15836	20360
9	Housing Services (O.D)	101247	108386	113961	120630	154203	182320	190127
10	Other Private Services	42690	47073	51859	56649	62140	71249	83010

Table 18(c): GROSS FIXED CAPITAL FORMATION
PUBLIC & GENERAL GOVERNMENT SECTORS
BY ECONOMIC ACTIVITY
[AT CURRENT MARKET PRICES]

Sr. No.	Sectors	Rs. Million						
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
B.	Public & General Govt. (B+C) Public Sector (Autonomous & Semi Aut-Bodies)	218165	232759	161369	170292	218655	268801	347684
		156851	170030	98700	90522	103193	122861	149606
1	Agriculture	72	17	97	34	3	5	50
2	Mining & Quarrying	1719	6878	7491	9808	3142	5040	6133
3	Manufacturing	21187	13893	1398	1400	3410	2140	3609
4	Electricity Generation and Distr'n & Gas Distribution	71757	72011	29872	42826	30557	39104	51458
5	Construction	2551	2072	3229	2744	3258	4096	6375
6	Transport & Communication	<u>56213</u>	<u>72982</u>	<u>54884</u>	<u>31483</u>	<u>61695</u>	<u>71416</u>	<u>80103</u>
	a. Railways	369	2473	5376	3133	3336	3439	4754
	b. Post Offices & PTCL	27438	31239	26440	6696	5834	10763	15232
	c. Others	28406	39270	23068	21654	52525	57214	60117
7	Finance & Insurance	3352	2176	1730	2228	1128	1060	1878
C.	General Government	61315	62729	62669	79769	115463	145940	198078
	i. Federal	17412	16749	20672	22013	28791	27141	37307
	ii. Provincial	35138	34704	19613	29525	54144	77407	122774
	iii. District Governments	8765	11276	22384	28232	32528	41393	37997

The consolidated GFCF of all the industries at constant prices in private and public sectors is presented in tables 19(a), 19(b) and 19(c) below:-

Table 19(a): GROSS FIXED CAPITAL FORMATION
PRIVATE, PUBLIC & GENERAL GOVERNMENT SECTORS
BY ECONOMIC ACTIVITY
[AT CONSTANT PRICES]

Sr. No.	Sectors	Rs. Million						
		1999- 2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
	Total GFCF(A+B+C)	994093	1018240	970737	1034547	1110748	1265310	1456889
A.	Private Sector	661293	691398	746530	822652	841084	959033	1109205
B.	Public Sector	243783	241099	140234	110729	133953	145603	149606
C.	General Government	89017	85742	83973	101166	135711	160674	198078
	Private & Public Sector (A+B)	905076	932497	886764	933381	975037	1104635	1258811
	(Sector wise total)							
1	Agriculture	215133	214665	215705	229844	234966	240917	254795
2	Mining & Quarrying	26473	26683	28561	82987	5161	19480	28962
3	Manufacturing	<u>166453</u>	<u>177396</u>	<u>190312</u>	<u>174810</u>	<u>205392</u>	<u>229710</u>	<u>287117</u>
	i. Large Scale	163082	173707	186275	170393	200558	224420	281328
	ii. Small Scale(including slaughtering)	3371	3689	4037	4417	4834	5290	5789
4	Electricity Generation and Distr'n & Gas Distribution	106138	89618	41826	51026	32153	44769	54765
5	Construction	16345	14461	15884	7153	7674	15599	20972
6	Wholesale & Retail Trade	13815	14636	14991	15988	17701	20175	22095
7	Transport & Communication	140638	168843	139013	119638	206875	256723	294731
8	Finance & Insurance	13215	10368	14573	15698	18372	18601	22238
9	Housing Services(O.D)	150260	156270	162521	169022	175783	182814	190127
10	Other Private Services	56607	59557	63377	67214	70960	75846	83010

Table 19(b): GROSS FIXED CAPITAL FORMATION
PRIVATE SECTOR BY ECONOMIC ACTIVITY
[AT CONSTANT PRICES]

Sr. No.	Sectors	Rs. Million						
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
	Private Sector	661293	691398	746530	822652	841084	959033	1109205
1	Agriculture	215048	214646	215600	229807	234963	240912	254745
2	Mining & Quarrying	24022	18491	20341	72766	1914	13967	22829
3	Manufacturing	135694	158406	188438	173035	201384	227354	283508
	i. Large Scale	132323	154717	184402	168618	196550	222064	277719
	ii. Small Scale (including Slaughtering)	3371	3689	4037	4417	4834	5290	5789
4	Electricity Generation and Distr'n & Gas Distribution	3782	3848	9043	6394	576	1989	3307
5	Construction	12554	11473	11279	3308	3960	11492	14597
6	Wholesale & Retail Trade	13815	14636	14991	15988	17701	20175	22095
7	Transport & Communication	41164	46676	48684	72245	116796	167049	214628
8	Finance & Insurance	8348	7394	12255	12872	17047	17434	20360
9	Housing Services (O.D)	150260	156270	162521	169022	175783	182814	190127
10	Other Private Services	56607	59557	63377	67214	70960	75846	83010

Table 19(c): GROSS FIXED CAPITAL FORMATION
PUBLIC & GENERAL GOVERNMENT SECTORS
BY ECONOMIC ACTIVITY
[AT CONSTANT PRICES]

Sr. No.	Sectors	Rs. Million						
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
	Public & General Govt. (B+C)	332800	326841	224207	211895	269664	306277	347684
B.	Public Sector (Autonomous & Semi Aut-Bodies)	243783	241099	140234	110729	133953	145603	149606
1	Agriculture	85	19	105	37	3	5	50
2	Mining & Quarrying	2451	8192	8221	10221	3247	5514	6133
3	Manufacturing	30759	18990	1873	1776	4008	2356	3609
4	Electricity Generation and Distr'n & Gas Distribution	102356	85769	32783	44632	31577	42780	51458
5	Construction	3790	2987	4605	3845	3714	4107	6375
6	Transport & Communication	<u>99474</u>	<u>122167</u>	<u>90329</u>	<u>47393</u>	<u>90079</u>	<u>89674</u>	80103
	a. Railways	653	4140	8848	4716	4871	4318	4754
	b. Post Offices & PTCL	48554	52292	43515	10080	8518	13515	15232
	c. Others	50267	65735	37966	32597	76690	71841	60117
7	Finance & Insurance	4867	2974	2318	2826	1325	1167	1878
C.	General Government	89017	85742	83973	101166	135711	160674	198078
	i. Federal	25279	22894	27699	27918	33839	29881	37307
	ii. Provincial	51013	47436	26280	37444	63638	85221	122774
	iii. District Governments	12725	15413	29994	35804	38233	45572	37997

E. Changes in inventories and acquisitions less disposals of valuables

I: Changes in inventories

According to 2008 SNA (Para 10.12), inventories are produced assets that consist of goods and services, which came into existence in the current period or in an earlier period, and that are held for sale, use in production or other use at a later date. Inventories consist of stocks of outputs that are still held by the units that produced them prior to their being further processed, sold, delivered to other units or used in other ways and stocks of products acquired from other units that are intended to be used for intermediate consumption or for resale without further processing.

Changes in inventories refer to the value of physical change in the stocks of raw material, work-in-progress and finished goods held by industries and producers of government and are measured by the value of the entries into inventories less the value of withdrawals and less the value of any recurrent losses of goods held in inventories during the accounting period.

In Pakistan, changes in inventories are estimated indirectly as a fixed proportion i.e. 1.6% of GDP. The same method has been in 1999-2000 base as well as in 2005-06 base. Consequently, changes in inventories in the estimates of backward series have also been derived separately by applying the aforementioned method both at current and constant prices.

II. Acquisitions less disposals of valuables

According to 2008 SNA (Para 10.13), valuables are produced goods of considerable value that are not used primarily for purposes of production or consumption but are held as stores of value over time. Valuables are expected to appreciate or at least not to decline in real value, nor to deteriorate over time under normal conditions. They consist of precious metals and stones, jewelry, works of art, etc. Valuables may be held by all sectors of the economy.

In Pakistan, valuables are mainly held by households but neither their overall value nor their net annual additions are available. Resultantly, owing to the paucity of the data, the net additions to the valuables are used to be treated as nil in 1999-2000 base and 2005-06 base. Therefore, valuables have been treated as nil in the estimates of backward series also.

F. Exports and Imports of goods and services

In national accounts statistics, exports and imports of both goods and non-factor services are used as the component of aggregate demand. The basic data on merchandise trade are taken from the foreign trade statistics of the PBS, whereas nonfactor services are extracted from the SBP's balance of payments statistics.

In the compilation of backward series of expenditure on GDP at current prices in 2005-06 base, the figures of exports & imports of goods and non-factor services at current prices have been retained as were in the 1999-2000 base because there was no methodological/conceptual change. However, exports & imports of goods and non-factor services at constant prices have

been compiled by applying the specifically compiled unit value indices of exports and imports with 2005-06 as the base year for the respective years.

Summary results of the expenditure on GDP

Summary results of the expenditure on GDP at current and constant prices have been tabulated below in table 20(a) and 20(b).

**Table 20(a): Expenditure on Gross Domestic Product
At Current Prices (Rs. Million) 2005-06 base**

Description/Year	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	
							2005-06 base	1999-2000 base (Published)
Household final consumption expenditure	3202037	3526711	3728910	4004620	4644338	5583402	6379481	5720225
General government final consumption expenditure	343126	339975	402701	444915	481539	531692	857461	824300
Gross fixed capital formation	678045	731161	714234	809956	920283	1148902	1456889	1565838
Changes in inventories	67894	74041	78729	85991	99260	114019	131459	121971
Exports of goods and non-factor services	514280	617148	677855	815158	883704	1019783	1161269	1161257
Less imports of goods and non-factor services	561990	661455	681880	786224	825399	1271604	1770399	1770386
GDP by expenditure	<u>4243393</u>	<u>4627582</u>	<u>4920549</u>	<u>5374415</u>	<u>6203725</u>	<u>7126194</u>	<u>8216160</u>	<u>7623205</u>

**Table 20(b) EXPENDITURE ON GROSS DOMESTIC PRODUCT
AT CONSTANT PRICES OF 2005-06 (Rs. Million)**

Description/Year	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Household final consumption expenditure	4835138	5003069	5093193	5274336	5613700	6218633	6379481
General government final consumption expenditure	498151	464701	539597	564255	565984	585370	857461
Gross fixed capital formation	994093	1018240	970737	1034547	1110748	1265310	1456889
Changes in inventories	96506	99936	102443	108361	116539	124136	131459
Exports of goods and non-factor services	606570	680438	748170	960495	945830	1056749	1161269
Less imports of goods and non-factor services	998838	1020375	1051460	1169429	1069120	1491709	1770399
GDP by expenditure	<u>6031620</u>	<u>6246009</u>	<u>6402680</u>	<u>6772565</u>	<u>7283681</u>	<u>7758488</u>	<u>8216160</u>

The comparison of the components of the GDP at current prices in 1999-2000 base and 2005-06 is presented in table 20(c) below:-

Table 20(c): Comparison of the Components of the Expenditure on GDP at current prices (%)

Description/Year		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
1999-2000 base	Household final consumption expenditure	75.38	76.28	74.78	73.86	74.19	76.95	75.04
	General government final consumption expenditure	8.64	7.78	8.72	8.79	8.20	7.84	10.81
	Gross fixed capital formation	15.88	15.66	15.28	15.10	14.98	17.46	20.54
	Changes in inventories	1.35	1.33	1.30	1.65	1.60	1.62	1.60
	Exports of goods and non-factor services	13.44	14.66	15.22	16.72	15.67	15.69	15.23
	Less imports of goods and non-factor services	14.69	15.71	15.31	16.13	14.63	19.56	23.22
	GDP by expenditure	100.00	100.00	100.00	100.00	100.00	100.00	100.00
2005-06 base	Household final consumption expenditure	75.46	76.21	75.78	74.51	74.86	78.35	77.65
	General government final consumption expenditure	8.09	7.35	8.18	8.28	7.76	7.46	10.44
	Gross fixed capital formation	15.98	15.80	14.52	15.07	14.83	16.12	17.73
	Changes in inventories	1.60	1.60	1.60	1.60	1.60	1.60	1.60
	Exports of goods and non-factor services	12.12	13.34	13.78	15.17	14.24	14.31	14.13
	Less imports of goods and non-factor services	13.24	14.29	13.86	14.63	13.30	17.84	21.55
	GDP by expenditure	100.00	100.00	100.00	100.00	100.00	100.00	100.00

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Annexures

Annexure 1: Macroeconomic Indicators: Growth Rates (%) from 1951-52 to 2015-16

Years	(Constant Factor Cost)					(Current Market Prices)			
	GDP	Agriculture	Manufacturing	Commodity Producing Sector	Services Sector	Total Investment	Fixed Investment	Public Investment	Private Investment
				(1980-81=100)					
1951-52	-1.80	-9.06	7.77	-5.78	4.82				
1952-53	1.72	0.18	9.97	1.82	1.58				
1953-54	10.22	15.23	13.04	14.60	3.63				
1954-55	2.03	-2.21	12.39	0.27	4.97				
1955-56	3.53	2.09	10.07	3.92	2.90				
1956-57	2.98	2.27	5.44	3.12	2.75				
1957-58	2.54	1.92	3.73	2.79	2.12				
1958-59	5.47	4.00	4.18	4.66	6.79				
1959-60	0.88	0.29	2.14	0.65	1.23				
1960-61	4.89	-0.21	12.88	4.38	5.70	14.68			
1961-62	6.01	6.19	13.30	7.13	4.26	15.06			
1962-63	7.19	5.21	11.20	7.39	6.88	27.32			
1963-64	6.48	2.51	11.36	6.27	6.83	28.29			
1964-65	9.38	5.25	9.95	7.23	12.84	23.19	19.96	10.29	12.58
1965-66	7.56	0.45	8.59	3.05	14.45	-8.07	-9.19	-22.50	-6.62
1966-67	3.08	5.48	5.66	4.79	0.74	10.95	6.95	23.01	4.64
1967-68	6.79	11.73	6.37	9.38	3.09	-6.01	-1.21	6.19	5.22
1968-69	6.49	4.52	8.63	7.06	5.62	1.87	-2.06	-0.27	-4.96
1969-70	9.79	9.55	11.33	11.59	7.02	20.40	19.93	44.43	16.12
1970-71	1.23	-3.07	6.44	0.41	2.55	4.61	3.07	141.96	1.09
1971-72	2.32	3.47	1.25	1.54	3.55	-2.90	-3.29	-60.63	0.42
1972-73	6.80	1.67	8.73	4.95	9.64	12.82	12.23	-0.64	5.08
1973-74	7.45	4.18	6.35	5.87	9.79	34.33	38.82	75.16	3.06
1974-75	3.88	-2.12	0.53	-0.46	10.04	56.86	-88.52	76.70	35.63
1975-76	3.25	4.47	1.39	4.65	21.45	49.63	40.40	57.45	24.50
1976-77	2.84	2.53	1.81	2.70	3.03	20.43	16.03	11.07	19.99
1977-78	7.73	2.82	10.21	5.63	10.51	9.26	9.61	15.46	11.94
1978-79	5.53	3.10	8.01	5.07	6.11	11.33	9.13	7.93	11.94
1979-80	7.33	6.61	10.26	8.46	5.91	24.05	24.81	20.88	32.90
1980-81	6.40	3.66	10.63	6.26	6.58	9.83	4.77	-1.22	13.06
1981-82	7.56	4.72	13.75	15.09	7.90	19.62	14.43	19.77	7.97
1982-83	6.79	4.40	7.03	4.64	2.24	9.63	13.14	11.98	14.69
1983-84	3.97	-4.82	7.89	0.38	7.61	12.04	12.07	7.97	17.42
1984-85	8.71	10.92	8.09	9.45	8.21	12.81	12.59	11.35	14.07
1985-86	6.36	5.95	7.55	6.93	5.77	11.58	12.35	13.07	11.49
1986-87	5.81	3.25	7.53	5.76	5.86	13.46	14.27	17.03	10.99
1987-88	6.44	2.73	9.98	6.12	6.77	11.07	11.22	1.49	16.73
1988-89	4.81	6.87	3.96	5.77	3.81	19.65	19.69	15.99	23.94
1989-90	4.59	3.03	5.72	4.69	4.48	11.34	11.19	3.63	19.33
1990-91	5.42	4.96	5.39	5.61	5.21	18.96	19.53	16.29	18.31
1991-92	7.57	9.50	7.22	8.34	6.76	26.46	27.19	28.25	30.98
1992-93	2.10	-5.29	4.44	-0.27	4.63	13.79	13.86	15.59	13.33
1993-94	4.37	5.23	4.55	4.53	4.20	9.95	9.41	8.51	11.51
1994-95	5.06	6.57	2.54	5.32	4.80	13.41	13.30	21.23	8.48
1995-96	6.60	11.72	3.73	8.16	4.99	16.39	15.91	16.49	18.66
1996-97	1.70	0.12	-0.07	-0.10	3.61	8.04	7.72	0.64	19.52
1997-98	3.49	4.52	6.93	5.30	1.64	8.99	1.51	-14.85	13.28
1998-99	4.18	1.95	4.10	3.42	4.99	-3.56	1.51	25.77	-11.44
1999-00	3.91	6.09	1.53	3.02	4.79	10.19	10.49	5.50	14.31

Years	(2005-06=100)						
	(Constant basic prices)				(Current MP)		
	GDP	Agriculture	Manufacturing	Commodity Producing Sector	Services Sector	Gross Capital Formation	Gross Fixed Capital Formation
1999-00	-	-	-	-	-	-	-
2000-01	3.65	-0.72	10.49	2.00	5.09	7.94	7.83
2001-02	2.37	0.76	4.07	1.01	3.51	-1.52	-2.32
2002-03	5.64	4.41	7.29	5.53	5.74	12.99	13.40
2003-04	7.70	2.85	16.38	9.23	6.45	13.80	13.62
2004-05	7.52	7.02	16.03	6.78	8.14	23.87	24.84
2005-06	5.56	1.27	9.39	2.38	8.20	25.77	26.81
2006-07	5.54	3.42	9.03	5.48	5.58	9.29	9.00
2007-08	4.99	1.81	6.10	5.05	4.94	17.70	17.94
2008-09	0.36	3.50	-4.18	-0.88	1.33	13.38	12.41
2009-10	2.58	0.23	1.37	1.76	3.21	1.43	0.31
2010-11	3.62	1.96	2.50	3.21	3.94	9.84	8.36
2011-12	3.84	3.62	2.08	3.09	4.40	17.11	18.05
2012-13	3.68	2.68	4.85	1.73	5.13	10.79	10.69
2013-14	4.05	2.50	5.65	3.49	4.46	10.01	9.72
2014-15	4.04	2.53	3.90	3.65	4.31	15.53	16.31
2015-16	4.71	-0.19	5.00	3.29	5.71	5.78	5.57

Note: From 1999-2000 onward estimates are at basic prices

Annexure 2: National accounts Main Aggregates (at current prices) from 1960-61 to 2015-16 (Rs. Million)

Year	Per capita GNP (MP) Rs.	Exchange Rate 1US \$ = Rs	Per capita GNP (MP) \$	GNP (MP)	Net factor income from abroad	GDP (MP)	Indirect Taxes	Subsidies	GDP (FC)	Total Consumption	Total Investment	Export of G&NFS	Imports of G&NFS
(1980-81 base year)													
1960-61	434	4.76	91	20032	-26	20058	1293	30	18795	18541	3047	1219	2749
1961-62	440	4.76	92	20919	-27	20946	1438	52	19560	19019	3506	1375	2954
1962-63	458	4.76	96	22406	-49	22455	1632	62	20885	19675	4464	1803	3487
1963-64	500	4.76	105	25157	-35	25192	1890	49	23351	21369	5727	1914	3818
1964-65	544	4.76	114	28669	-55	28724	2250	217	26691	24471	7056	1992	4795
1965-66	595	4.76	125	31690	-50	31740	2520	245	29465	26935	6485	2158	3838
1966-67	659	4.76	138	36126	-48	36174	3154	230	33250	38112	7417	2460	4815
1967-68	692	4.76	145	38985	-23	39008	1971	217	36254	33824	6764	2862	4442
1968-69	723	4.76	152	41945	-30	41975	3586	222	38611	36621	6858	2862	4366
1969-70	809	4.76	170	48298	3	48295	4636	232	43891	41307	8293	3637	4942
1970-71	834	4.76	175	51273	-82	51355	4978	193	46570	46077	8679	3922	5323
1971-72	874	4.76	184	54367	99	55268	5117	228	50379	47645	8427	3923	4727
1972-73	1043	7.33	142	68716	463	68273	6600	522	62175	58381	9509	9961	9598
1973-74	1319	9.91	133	89532	617	88915	9486	3094	82503	79385	12772	11960	15202
1974-75	1618	9.91	163	113201	1147	112054	11560	3934	104428	102041	20035	12994	23016
1975-76	1862	9.91	188	134322	2992	131330	13642	3014	120702	116847	26456	13881	23854
1976-77	2106	9.91	213	156522	5480	151042	15650	1884	137278	132058	31734	13991	26741
1977-78	2481	9.91	250	190043	12139	177904	19604	3110	161410	159228	34647	16629	32600
1978-79	2673	9.91	270	211004	14533	196471	24058	6987	179400	179117	38354	21529	42529
1979-80	2115	9.91	314	253452	18384	235168	30333	6407	211242	212594	47667	29485	54578
1980-81	3597	9.91	363	300888	22692	278196	35562	5197	247831	252411	52207	35707	62129
1981-82	4058	9.91	409	349508	25349	324159	37440	5434	292153	297180	62447	33033	68501
1982-83	4555	12.71	358	403782	39395	364387	45487	7512	326412	333548	68462	44395	82018
1983-84	5040	13.48	374	459397	39595	419802	53557	8104	374349	387488	76401	47835	92222
1984-85	5450	15.15	360	510468	38311	472157	56396	9303	425064	442472	86525	49889	106729
1985-86	5777	16.14	358	555891	14359	514532	58205	9992	466319	458194	96545	63268	103475
1986-87	6159	17.18	358	608857	36378	572479	64422	7374	515431	493156	109540	79056	109273
1987-88	6948	17.6	395	704484	29095	675389	84494	10130	601025	591319	121666	93601	131197
1988-89	7453	19.22	388	797750	28005	769745	99361	12754	683138	672498	145570	108318	156641
1989-90	8367	21.45	390	892843	36900	855943	108641	12549	759851	740577	162076	126583	173293
1990-91	9510	22.42	424	1040632	23908	1016724	123437	11211	904498	839736	192857	172812	188681
1991-92	10853	24.84	437	1217741	12537	1205204	144815	11373	1071762	999506	243894	209215	247411
1992-93	11672	25.96	450	1342801	9960	1332841	151300	9800	1191341	1137099	277516	217372	299146
1993-94	13271	30.16	440	1565092	3988	1561104	169295	9056	1400865	1299082	305140	254187	297305
1994-95	15552	30.85	504	1879965	14043	1865922	200544	6599	1671977	1370496	346045	311795	362414
1995-96	17059	33.57	508	2113037	-7136	2120173	204102	13820	1929891	1813326	402762	358375	454290
1996-97	18983	38.99	487	2408962	-19350	2428312	214663	12931	2226580	2107026	435134	390520	504368
1997-98	20415	43.19	473	2653292	-24364	2677656	210346	13574	2480884	2231316	474245	441406	469311
1998-99	21899	46.79	468	2912832	-25547	2938379	220697	18261	2735943	2528417	457357	451144	498539
1999-00	22811	51.77	441	3102261	-44906	3147167	256903	31724	2921988	2694041	503980	514389	565243

Year	(2005-06 base year)												
	Per capita GNI (MP)	Exchange Rate	Per capita GNI (MP)	GNI (MP)	Net factor income from abroad	GDP (MP)	Taxes on Products	Subsidies on Products	Total of GVA (BP)	Final Consumption Expenditure	Gross Capital Formation	Export of G&NFS	Imports of G&NFS
	Rs.	1US \$ = Rs	\$										
1999-00	30506	51.77	589	4195437	-47956	4243393	298227	22089	3967255	3545163	745940	514280	561990
2000-01	32581	58.44	558	4573100	-54482	4627582	323284	23703	4328001	3866686	805202	617148	661455
2001-02	34534	61.43	562	4944214	23665	4920549	342029	22804	4601324	4131611	792963	677855	681880
2002-03	37659	58.50	644	5526227	151812	5374415	406509	43402	5011308	4449535	895947	815158	786224
2003-04	42287	57.57	735	6328203	124478	6203725	459264	46003	5790464	5125877	1019543	883704	825399
2004-05	47601	59.34	802	7260655	134461	7126194	472394	64172	6717972	6115094	1262922	1019783	1271604
2005-06	53846	59.86	900	8366061	149901	8216160	573718	73335	7715777	7236942	1588348	1161269	1770399
2006-07	59413	60.63	980	9397417	157631	9239786	617143	113123	8735766	8110142	1735885	1221002	1827243
2007-08	65873	62.55	1053	10846688	208916	10637772	696900	414383	10355255	9746724	2043074	1317202	2469228
2008-09	80545	78.50	1026	13545988	346281	13199707	919059	261617	12542265	11844211	2316480	1636203	2597187
2009-10	89869	83.80	1072	15433243	566247	14866996	870853	252404	14248547	13385029	2349663	2009463	2877159
2010-11	108931	85.50	1274	19096665	820225	18276440	1046915	418028	17647553	16610714	2580748	2552610	3467632
2011-12	117837	89.24	1320	21082207	1035707	20046500	1221540	536551	19361511	18630459	3022202	2485097	4091258
2012-13	129005	96.73	1334	23547264	1161607	22385657	1275990	393674	21503341	20554949	3348297	2972178	4489767
2013-14	142849	102.86	1389	26597032	1428227	25168805	1480099	340191	24028897	23100132	3683523	3081312	4696162
2014-15	153620	101.29	1517	29167916	1674811	27493105	1633881	280549	26139773	25006328	4255712	2910171	4679106
2015-16	162568	104.16	1561	31466584	1868679	29597905	1876016	183202	27905091	27205529	4501768	2573396	4682788

Note: From 1999-2000 onward estimates are at basic prices

Annexure 3: National Accounts Main Aggregates (at constant prices) from 1960-61 to 2015-16 (Rs. Million)

Year	Per capita GNP (MP) Rs.	GNP (MP)	Net factor income from abroad	GDP (MP)	Indirect Taxes	Subsidies	GDP (FC)	Total Consumption	Total Investment	Export of G&NFS	Imports of G&NFS
(1980-81=100)											
1960-61	1799	83098	-202	83300	1244	29	82085	76991	19009	8614	21314
1961-62	1848	87830	-218	88048	1406	51	86693	77437	21866	9489	20744
1962-63	1920	93880	-387	94267	1591	61	92737	77413	27856	12686	23688
1963-64	1994	100342	-274	100616	1759	45	98902	81481	30658	13473	42996
1964-65	2117	109583	-492	110075	2010	194	108259	97486	31133	13488	32031
1965-66	2199	117112	-379	117491	2186	212	115517	95501	34265	14068	26344
1966-67	2227	121766	-387	122153	2504	182	119831	103385	34135	16553	31919
1967-68	2307	130033	-185	130218	2289	168	128097	311321	30038	18772	29913
1968-69	2385	138347	-234	138581	2781	172	135972	120687	28661	18809	29576
1969-70	2541	151690	16	151674	3507	176	148343	122321	35904	26571	33122
1970-71	2485	152804	-580	153384	3625	141	149900	126014	35140	27173	34943
1971-72	2695	170721	572	170149	17932	800	153018	142631	33005	23351	28838
1972-73	2770	182537	1459	181078	19343	1527	163262	146590	33281	29893	28686
1973-74	2812	190942	1483	189459	21813	7066	174712	161928	35229	27004	34702
1974-75	2806	196393	2080	194313	21081	7172	180404	173828	37157	22940	39612
1975-76	2906	209606	5731	203875	22330	4934	186479	177904	44833	24439	43302
1976-77	2991	222290	10439	211851	22888	2754	191717	186116	49811	21007	45083
1977-78	3272	250662	21563	229099	26565	4212	206746	206340	49494	23682	50417
1978-79	3353	264664	24715	239949	30563	8872	218258	229254	49357	24630	63292
1979-80	3513	285817	25409	260408	34308	7245	233345	245065	50500	31216	66373
1980-81	3597	300888	22692	278196	35562	5197	247831	252401	52207	35707	62129
1981-82	3707	319265	22882	296383	33873	5161	266572	264983	59665	33570	61835
1982-83	3943	349473	33000	316473	38447	6641	284667	279932	63426	41819	68703
1983-84	3995	364133	31630	332503	45038	6512	295977	299441	66459	40275	73672
1984-85	4127	386561	28814	357747	43103	7102	321751	324640	73218	40130	80241
1985-86	4248	408711	31282	377429	42501	7296	342224	326020	76379	53996	78266
1986-87	4333	428357	26575	401782	44800	5128	362110	342163	79576	59868	79825
1987-88	4433	449518	17100	432418	53406	6403	385416	372862	79551	57112	77107
1988-89	4450	468799	14933	453866	57269	7351	403948	387422	84445	64979	83524
1989-90	4547	491265	17163	474102	58359	6741	422484	274465	88766	65710	80601
1990-91	4639	507556	9457	498099	59345	5390	444144	395219	89819	87700	74639
1991-92	4825	541428	4949	536479	63722	5004	477761	433206	101112	99821	97660
1992-93	4778	549646	3734	545912	62156	4026	487782	451942	104991	101136	112157
1993-94	4812	567634	1319	566315	60458	3234	509091	457881	104208	104282	100056
1994-95	4951	598450	4031	594419	61584	2026	534861	489190	108182	101075	104028
1995-96	5016	621372	-1856	623228	56818	3747	570157	524019	114287	103091	118169
1996-97	4927	625188	-4362	629550	52870	3185	579865	536773	110120	96353	113696
1997-98	4924	640034	-5571	645605	48617	3137	600125	548618	113407	90832	107305
1998-99	4992	664033	-5202	669235	47971	3969	625223	579266	103235	88243	101509
1999-00	5073	689862	-7883	697745	54864	6775	649656	586285	108309	102376	99225

Year	(2005-06=100)										
	Per capita GNI Rs.	GNI	Net factor income from abroad	GDP	Taxes on Products	Subsidies on Products	Total of GVA (BP)	Final Consumption Expenditure	Gross Capital Formation	Export of G&NFS	Imports of G&NFS
1999-00	43237	5946386	-85233	6031620	432967	32069	5630722	5333289	1090599	606570	998838
2000-01	43901	6161964	-84045	6246009	441886	32399	5836522	5467770	1118176	680438	1020375
2001-02	44976	6439171	36491	6402680	458299	30556	5974937	5632790	1073180	748170	1051460
2002-03	47691	6998370	225805	6772565	515548	55044	6312061	5838591	1142908	960495	1169429
2003-04	49749	7444914	161233	7283681	539803	54070	6797948	6179684	1227287	945830	1069120
2004-05	51899	7916223	157735	7758488	520086	70650	7309052	6804003	1389445	1056749	1491709
2005-06	53846	8366061	149901	8216160	573718	73335	7715777	7236942	1588348	1161269	1770399
2006-07	55382	8759743	146511	8613232	577093	106830	8142969	7503163	1629607	1178801	1698339
2007-08	54123	8911894	152116	8759778	551694	341064	8549148	7732189	1700342	1125141	1797894
2008-09	54759	9209409	201584	9007825	611768	183930	8579987	7805480	1626948	1087323	1511926
2009-10	55104	9463047	310494	9152553	509152	157993	8801394	7951440	1520646	1258116	1577649
2010-11	55769	9776830	372728	9404102	504829	221063	9120336	8273127	1418781	1287961	1575767
2011-12	56567	10120466	386559	9733907	533424	269772	9470255	8711308	1454831	1094756	1526988
2012-13	57881	10564986	403132	10161854	519054	176255	9819055	8977811	1495238	1243433	1554628
2013-14	59675	11110897	474006	10636891	556679	136844	10217056	9433998	1536447	1225028	1558582
2014-15	61553	11687052	548902	11138150	616350	107861	10629661	9787856	1736506	1147318	1533530
2015-16	64401	12465443	687849	11777594	716693	69134	11130035	10572898	1835709	1092691	1723704

Note: From 1999-2000 onward estimates are at basic prices

Annexure 4: Gross Domestic Product of Pakistan (at current basic prices) from 1999-2000 to 2015-16 (Rs. Million)

S. No	Sector/Industry	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
A.	Agricultural Sector (1 to 4)	1087041	1119794	1134823	1228846	1432002	1636204	1775346	2014317	2395527	2998621	3461273	4592720	4753075	5334976	5976217	6562832	7040873
-	1. Crops (i-ii+iii)	552017	551533	534805	585777	688885	765390	766274	870990	1097991	1460713	1604816	2309517	1966610	2192553	2612933	2713832	2624689
	i) Important Crops	322835	315037	296705	344271	420938	457230	449025	514579	690748	985311	1058365	1532889	1236453	1411388	1760329	1754847	1726961
	ii) Other Crops	186561	189530	195036	192036	205434	247511	256777	293478	333499	392163	423866	552499	586669	639078	695138	774213	734096
	iii) Cotton Ginning	42620	46966	43064	49470	62513	60650	60472	62933	73744	83239	122585	224129	143488	142087	157467	184772	163632
	2. Livestock	467044	497101	530708	572367	667685	805914	930842	1058801	1195466	1417555	1717446	2131579	2610408	2933384	3129682	3611958	4146136
	3. Forestry	29767	33477	32416	36944	39726	29789	35067	41719	53061	65526	72423	89390	113103	136500	153722	146169	166196
	4. Fishing	38213	37684	36894	33758	35707	35111	43163	42807	47009	54827	66588	62234	62954	72538	79880	90873	103852
B.	Industrial Sector (1 to 4)	744651	831934	869622	966270	1215556	1419763	1616157	1846217	2312375	2533221	2931695	3746997	4269666	4525694	5040094	5217366	5347977
	1. Mining and Quarrying	99821	119868	135898	160932	202225	198397	254345	297183	324258	413256	475366	494739	642205	696976	741022	700419	650480
	2. Manufacturing (i-ii+iii)	433666	492116	522153	583187	729173	904754	1065323	1226012	1572886	1679072	1943839	2527651	2809684	3037311	3408468	3507017	3552798
	i) Large Scale	353587	405926	429766	480242	604239	760402	903323	1043111	1363068	1427213	1644117	2144831	2362410	2519037	2824463	2850224	2844358
	ii) Small Scale	47351	52048	56354	62179	74031	79942	89116	101162	122473	145946	167383	208611	241951	283107	327030	373317	405187
	iii) Slaughtering	32729	34142	36032	40766	50902	64410	72884	81739	87345	105913	132339	174209	205323	235167	256975	283476	303253
	3 Electricity generation & distribution and Gas	120622	121862	112938	117628	164491	157743	110109	101231	146125	146983	209936	406156	439637	368040	406192	474335	552105
	4. Construction	90541	98088	98634	104522	119667	158869	186380	221791	269106	293910	302554	318451	378140	423367	484412	535595	592594
	Commodity Producing Sectors (A+B)	1831692	1951728	2004445	2195115	2647559	3055968	3391503	3860534	4705902	5531842	6392968	8339717	9022741	9860670	11016311	11780198	12388850
C.	Services Sectors (1 to 6)	2135563	2376272	2596879	2816193	3142905	3662005	4324274	4875232	5649353	7010423	7855579	9307836	10338770	11642671	13012586	14359575	15516241
	1. Wholesale & Retail Trade	686036	759366	788589	871463	1050582	1274386	1523067	1720385	2201667	2479758	2824137	3568178	4006835	4369465	4924462	5085934	5203573
	2. Transport, Storage & Communication	501626	585072	669120	734153	786120	858135	959499	1080163	1065682	1693847	1834476	1923433	1905704	2311796	2474818	3105780	3570442
	3. Finance & Insurance	99972	115282	134820	127340	125690	187548	282919	342757	401060	481308	474733	536345	570503	522327	584074	605108	542289
	4. Housing Services (OD)	301205	321701	342289	356919	385104	443640	504743	559956	636974	707261	789220	886370	984148	1092749	1229110	1371444	1506452
	5. General Government Services	231842	247372	273696	300837	328386	361217	425218	470688	529107	654144	778002	1009433	1244687	1486115	1660434	1818477	2080066
	6. Other Private Services	314883	347479	388364	425482	467024	537078	628828	701283	814863	994105	1155011	1384077	1626893	1860219	2139688	2372832	2613419
D.	GDP {Total of GVA at bp (A+B+C)}	3967255	4328001	4601324	5011308	5790464	6717972	7715777	8735766	10355255	12542265	14248547	17647553	19361511	21503341	24028897	26139773	27905091
E.	Taxes	298227	323284	342029	406509	459264	472394	573718	617143	696900	919059	870853	1046915	1221540	1275990	1480099	1633881	1876016
F.	Subsidies	22089	23703	22804	43402	46003	64172	73335	113123	414383	261617	252404	418028	536551	393674	340191	280549	183202
G.	GDP at mp (GVA+T-S)	4243393	4627582	4920549	5374415	6203725	7126194	8216160	9239786	10637772	13199707	14866996	18276440	20046500	22385657	25168805	27493105	29597905
H.	Net Factor Income from Abroad	-47956	-54482	23665	151812	124478	134461	149901	157631	208916	346281	566247	820225	1035707	1161607	1428227	1674811	1868679
I.	Gross National Income	4195437	4573100	4944214	5526227	6328203	7260655	8366061	9397417	10846688	13545988	15433243	19096665	21082207	23547264	26597032	29167916	31466584
J.	Population (million no.)	137.53	140.36	143.17	146.745	149.65	152.53	155.37	158.17	164.66	168.18	171.73	175.31	178.91	182.53	186.19	189.87	193.56
K.	Per Capita Income	30506	32581	34534	37659	42287	47601	53846	59413	65873	80545	89869	108931	117837	129005	142849	153620	162568

Annexure 5: Gross Domestic Product of Pakistan (at constant basic prices of 2005-06) from 1999-2000 to 2015-16 (Rs. Million)

S. No	Sector/Industry	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
A.	Agricultural Sector (1 to 4)	1524840	1513844	1525297	1592631	1637993	1753002	1775346	1836125	1869310	1934691	1939132	1977178	2048794	2103600	2156117	2210647	2206357
	1. Crops (i+ii+iii)	723902	670728	653067	684252	698603	792884	766274	800212	792050	832916	798244	806162	832128	844860	867133	876147	821358
	i) Important Crops	410119	372453	362406	381860	389379	458513	449025	478175	458492	497113	478540	485722	523936	524839	562707	559792	519579
	ii) Other Crops	260346	246560	239268	252340	259641	269530	256777	262053	277761	279273	259054	264934	245007	258670	243890	251435	250658
	iii) Cotton Ginning	53438	51715	51392	50052	49583	64841	60472	59984	55797	56530	60650	55506	63185	61351	60536	64920	51121
	2. Livestock	714642	753755	789866	819443	851472	888947	930842	956546	990989	1013286	1051755	1087406	1130740	1169712	1198671	1246525	1291836
	3. Forestry	46728	50961	48699	54108	52399	35444	35067	36021	39228	40237	40207	42121	42874	45695	46555	41699	45384
	4. Fishing	39569	38400	33666	34828	35519	35728	43163	43346	47043	48252	48926	41489	43052	43333	43758	46276	47779
B.	Industrial Sector (1 to 4)	1087468	1150635	1166111	1247508	1464252	1559566	1616157	1741085	1888600	1790263	1851565	1935022	1984316	1999207	2089776	2190345	2339241
	1. Mining and Quarrying	189467	201284	216311	239508	291676	245502	254345	273032	281635	274710	282269	269798	283727	294727	298856	310715	331853
	2. Manufacturing (i+ii+iii)	584594	645940	672234	721209	839339	973847	1065323	1161551	1232430	1180964	1197163	1227091	1252670	1313365	1387556	1441679	1513752
	i) Large Scale	469699	524554	543921	585478	695731	821817	903323	989896	1050276	986887	990928	1007331	1018706	1064185	1122266	1159231	1212650
	ii) Small Scale	57081	61368	65977	70932	76259	81986	89116	96470	104519	113474	123083	133556	144713	156691	169677	183628	198695
	iii) Slaughtering	57815	60017	62336	64799	67349	70045	72884	75185	77635	80603	83152	86204	89251	92489	95613	98820	102407
	3. Electricity generation & distribution and Gas distribution	179034	161988	136902	140338	196823	180916	110109	96066	131767	115812	135099	221379	224490	165275	164054	183700	206067
	4. Construction	134372	141424	140664	146453	136414	159300	186380	210436	242768	218777	237034	216754	223429	225840	239310	254251	287569
	Commodity Producing Sectors (A+B)	2612308	2664479	2691408	2840138	3102245	3312568	3391503	3577210	3757910	3724954	3790697	3912200	4033110	4102807	4245893	4400992	4545598
C.	Services Sectors (1 to 6)	3018414	3172044	3283529	3471922	3695703	3996484	4324274	4565759	4791238	4855033	5010697	5208136	5437145	5716248	5971163	6228669	6584437
	1. Wholesale & Retail trade	952268	1008893	1033367	1102119	1220139	1390730	1523067	1612086	1703741	1652874	1682465	1718014	1746511	1808124	1894410	1944253	2033100
	2. Transport, Storage & Communication	768938	810345	820919	856977	881444	918864	959499	1025694	1082452	1136990	1170612	1198896	1254126	1304697	1355570	1421265	1479021
	3. Finance & Insurance	157923	168430	173233	185308	209601	243562	282919	308673	328071	296427	286775	274674	279171	302392	315428	335854	362187
	4. Housing Services (OD)	410370	425804	440714	455123	471094	487629	504743	524929	545950	567941	590718	614460	639003	664542	691093	718673	747354
	5. General Government Services	314369	321514	343739	370484	382762	385699	425218	436848	437742	462193	499038	569191	632130	703717	723823	758746	843211
	6. Other Private Services	414545	437058	471557	501911	530663	570001	628828	657529	693282	738608	781089	832901	886204	932776	990839	1049878	1119564
D.	GDP { Total of GVA at bp (A+B+C)	5630722	5836522	5974937	6312061	6797948	7309052	7715777	8142969	8549148	8579987	8801394	9120336	9470255	9819055	10217056	10629661	11130035
E.	Taxes	432967	441886	458299	515548	539803	520086	573718	577093	551694	611768	509152	504829	533424	519054	556679	616350	716693
F.	Subsidies	32069	32399	30556	55044	54070	70650	73335	106830	341064	183930	157993	221063	269772	176255	136844	107861	69134
G.	GDP (GVA+T-S)	6031620	6246009	6402680	6772565	7283681	7758488	8216160	8613232	8759778	9007825	9152553	9404102	9733907	10161854	10636891	11138150	11777594
H.	Net Factor Income from Abroad	-85233	-84045	36491	225805	161233	157735	149901	146511	152116	201584	310494	372728	386559	403132	474006	548902	687849
I.	Gross National Income	5946386	6161964	6439171	6998370	7444914	7916223	8366061	8759743	8911894	9209409	9463047	9776830	10120466	10564986	11110897	11687052	12465443
J.	Population (million no.)	137.53	140.36	143.17	146.745	149.65	152.53	155.37	158.17	164.66	168.18	171.73	175.31	178.91	182.53	186.19	189.87	193.56
K.	Per Capita Income	43237	43901	44976	47691	49749	51899	53846	55382	54123	54759	55104	55769	56567	57881	59675	61553	64401

Annexure 6: Real Growth Rates of GDP at constant basic prices of 2005-06 from 1999-2000 to 2015-16 (%)

S. No	Sector/Industry	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (F)	2014-15 (R)	2015-16 (P)
A.	Agricultural Sector (1 to 4)	-	-0.72	0.76	4.41	2.85	7.02	1.27	3.42	1.81	3.50	0.23	1.96	3.62	2.68	2.50	2.53	-0.19
-	1. Crops (i+ii+iii)	-	-7.35	-2.63	4.78	2.10	13.50	-3.36	4.43	-1.02	5.16	-4.16	0.99	3.22	1.53	2.64	1.04	-6.25
	i) Important Crops	-	-9.18	-2.70	5.37	1.97	17.75	-2.07	6.49	-4.12	8.42	-3.74	1.50	7.87	0.17	7.22	-0.52	-7.18
	ii) Other Crops	-	-5.30	-2.96	5.46	2.89	3.81	-4.73	2.05	5.99	0.54	-7.24	2.27	-7.52	5.58	-5.71	3.09	-0.31
	iii) Cotton Ginning	-	-3.22	-0.62	-2.61	-0.94	30.77	-6.74	-0.81	-6.98	1.31	7.29	-8.48	13.83	-2.90	-1.33	7.24	-21.26
	2. Livestock	-	5.47	4.79	3.74	3.91	4.40	4.71	2.76	3.60	2.25	3.80	3.39	3.99	3.45	2.48	3.99	3.63
	3. Forestry	-	9.06	-4.44	11.11	-3.16	-32.36	-1.06	2.72	8.90	2.57	-0.07	4.76	1.79	6.58	1.88	-10.43	8.84
	4. Fishing	-	-2.95	-12.33	3.45	1.98	0.59	20.81	0.42	8.53	2.57	1.40	-15.20	3.77	0.65	0.98	5.75	3.25
B.	Industrial Sector (1 to 4)	-	5.81	1.34	6.98	17.37	6.51	3.63	7.73	8.47	-5.21	3.42	4.51	2.55	0.75	4.53	4.81	6.80
	1. Mining and Quarrying	-	6.24	7.47	10.72	21.78	-15.83	3.60	7.35	3.15	-2.46	2.75	-4.42	5.16	3.88	1.40	3.97	6.80
	2. Manufacturing (i+ii+iii)	-	10.49	4.07	7.29	16.38	16.03	9.39	9.03	6.10	-4.18	1.37	2.50	2.08	4.85	5.65	3.90	5.00
	i) Large Scale	-	11.68	3.69	7.64	18.83	18.12	9.92	9.58	6.10	-6.04	0.41	1.66	1.13	4.46	5.46	3.29	4.61
	ii) Small Scale	-	7.51	7.51	7.51	7.51	7.51	8.70	8.25	8.34	8.57	8.47	8.51	8.35	8.28	8.29	8.22	8.21
	iii) Slaughtering	-	3.81	3.86	3.95	3.94	4.00	4.05	3.16	3.26	3.82	3.16	3.67	3.53	3.63	3.38	3.35	3.63
	3 Electricity generation & distribution and Gas	-	-9.52	-15.49	2.51	40.25	-8.08	-39.14	-12.75	37.16	-12.11	16.65	63.86	1.41	-26.38	-0.74	11.98	12.18
	4. Construction	-	5.25	-0.54	4.12	-6.86	16.78	17.00	12.91	15.36	-9.88	8.35	-8.56	3.08	1.08	5.96	6.24	13.10
	Commodity Producing Sectors (A+B)	-	2.00	1.01	5.53	9.23	6.78	2.38	5.48	5.05	-0.88	1.76	3.21	3.09	1.73	3.49	3.65	3.29
C.	Services Sectors (1 to 6)	-	5.09	3.51	5.74	6.45	8.14	8.20	5.58	4.94	1.33	3.21	3.94	4.40	5.13	4.46	4.31	5.71
	1. Wholesale & Retail trade	-	5.95	2.43	6.65	10.71	13.98	9.52	5.84	5.69	-2.99	1.79	2.11	1.66	3.53	4.77	2.63	4.57
	2. Transport, Storage & Communication	-	5.38	1.30	4.39	2.86	4.25	4.42	6.90	5.53	5.04	2.96	2.42	4.61	4.03	3.90	4.85	4.06
	3. Finance & Insurance	-	6.65	2.85	6.97	13.11	16.20	16.16	9.10	6.28	-9.65	-3.26	-4.22	1.64	8.32	4.31	6.48	7.84
	4. Housing Services (OD)	-	3.76	3.50	3.27	3.51	3.51	3.51	4.00	4.00	4.03	4.01	4.02	3.99	4.00	4.00	3.99	3.99
	5. General Government Services	-	2.27	6.91	7.78	3.31	0.77	10.25	2.74	0.20	5.59	7.97	14.06	11.06	11.32	2.86	4.82	11.13
	6. Other Private Services	-	5.43	7.89	6.44	5.73	7.41	10.32	4.56	5.44	6.54	5.75	6.63	6.40	5.26	6.22	5.96	6.64
D.	GDP Growth Rate	-	3.65	2.37	5.64	7.70	7.52	5.56	5.54	4.99	0.36	2.58	3.62	3.84	3.68	4.05	4.04	4.71

Annexure 7: Sectoral Shares in GDP (at constant basic prices of 2005-06) from 1999-2000 to 2015-16 (%)

S. No	Sector/Industry	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (F)	2014-15 (R)	2015-16 (P)
A.	Agricultural Sector (1 to 4)	27.08	25.94	25.53	25.23	24.10	23.98	23.01	22.55	21.87	22.55	22.03	21.68	21.63	21.42	21.10	20.80	19.82
	1. Crops (i+ii+iii)	12.86	11.49	10.93	10.84	10.28	10.85	9.93	9.83	9.26	9.71	9.07	8.84	8.79	8.60	8.49	8.24	7.38
	i) Important Crops	7.28	6.38	6.07	6.05	5.73	6.27	5.82	5.87	5.36	5.79	5.44	5.33	5.53	5.35	5.51	5.27	4.67
	ii) Other Crops	4.62	4.22	4.00	4.00	3.82	3.69	3.33	3.22	3.25	3.25	2.94	2.90	2.59	2.63	2.39	2.37	2.25
	iii) Cotton Ginning	0.95	0.89	0.86	0.79	0.73	0.89	0.78	0.74	0.65	0.66	0.69	0.61	0.67	0.62	0.59	0.61	0.46
	2. Livestock	12.69	12.91	13.22	12.98	12.53	12.16	12.06	11.75	11.59	11.81	11.95	11.92	11.94	11.91	11.73	11.73	11.61
	3. Forestry	0.83	0.87	0.82	0.86	0.77	0.48	0.45	0.44	0.46	0.47	0.46	0.46	0.45	0.47	0.46	0.39	0.41
	4. Fishing	0.70	0.66	0.56	0.55	0.52	0.49	0.56	0.53	0.55	0.56	0.56	0.45	0.45	0.44	0.43	0.44	0.43
B.	Industrial Sector (1 to 4)	19.31	19.71	19.52	19.76	21.54	21.34	20.95	21.38	22.09	20.87	21.04	21.22	20.95	20.36	20.45	20.61	21.02
	1. Mining and Quarrying	3.36	3.45	3.62	3.79	4.29	3.36	3.30	3.35	3.29	3.20	3.21	2.96	3.00	3.00	2.93	2.92	2.98
	2. Manufacturing (i+ii+iii)	10.38	11.07	11.25	11.43	12.35	13.32	13.81	14.26	14.42	13.76	13.60	13.45	13.23	13.38	13.58	13.56	13.60
	i) Large Scale	8.34	8.99	9.10	9.28	10.23	11.24	11.71	12.16	12.29	11.50	11.26	11.04	10.76	10.84	10.98	10.91	10.90
	ii) Small Scale	1.01	1.05	1.10	1.12	1.12	1.12	1.15	1.18	1.22	1.32	1.40	1.46	1.53	1.60	1.66	1.73	1.79
	iii) Slaughtering	1.03	1.03	1.04	1.03	0.99	0.96	0.94	0.92	0.91	0.94	0.94	0.95	0.94	0.94	0.94	0.93	0.92
	3 Electricity generation & distribution and Gas distribution	3.18	2.78	2.29	2.22	2.90	2.48	1.43	1.18	1.54	1.35	1.53	2.43	2.37	1.68	1.61	1.73	1.85
	4. Construction	2.39	2.42	2.35	2.32	2.01	2.18	2.42	2.58	2.84	2.55	2.69	2.38	2.36	2.30	2.34	2.39	2.58
	Commodity Producing Sectors (A+B)	46.39	45.65	45.04	45.00	45.64	45.32	43.96	43.93	43.96	43.41	43.07	42.90	42.59	41.78	41.56	41.40	40.84
C.	Services Sectors (1 to 6)	53.61	54.35	54.96	55.00	54.36	54.68	56.04	56.07	56.04	56.59	56.93	57.10	57.41	58.22	58.44	58.60	59.16
	1. Wholesale & Retail trade	16.91	17.29	17.30	17.46	17.95	19.03	19.74	19.80	19.93	19.26	19.12	18.84	18.44	18.41	18.54	18.29	18.27
	2. Transport, Storage & Communication	13.66	13.88	13.74	13.58	12.97	12.57	12.44	12.60	12.66	13.25	13.30	13.15	13.24	13.29	13.27	13.37	13.29
	3. Finance & Insurance	2.80	2.89	2.90	2.94	3.08	3.33	3.67	3.79	3.84	3.45	3.26	3.01	2.95	3.08	3.09	3.16	3.25
	4. Housing Services (OD)	7.29	7.30	7.38	7.21	6.93	6.67	6.54	6.45	6.39	6.62	6.71	6.74	6.75	6.77	6.76	6.76	6.71
	5. General Government Services	5.58	5.51	5.75	5.87	5.63	5.28	5.51	5.36	5.12	5.39	5.67	6.24	6.67	7.17	7.08	7.14	7.58
	6. Other Private Services	7.36	7.49	7.89	7.95	7.81	7.80	8.15	8.07	8.11	8.61	8.87	9.13	9.36	9.50	9.70	9.88	10.06
D.	GDP {Total of GVA at bp (A+B+C)}	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Annexure 8: Expenditure on Gross Domestic Product At Current Prices from 1999-2000 to 2015-16 (Rs. Million)

Description/Year	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (F)	2014-15 (R)	2015-16 (P)
Household final consumption expenditure	3202037	3526711	3728910	4004620	4644338	5583402	6379481	7197806	8709574	10455752	11851316	14831293	16527831	18091829	20391214	21995133	23698864
General government final consumption expenditure	343126	339975	402701	444915	481539	531692	857461	912336	1037150	1388459	1533713	1779421	2102628	2463120	2708918	3011195	3506665
Gross fixed capital formation	678045	731161	714234	809956	920283	1148902	1456889	1588048	1872870	2105285	2111791	2288325	2701458	2990126	3280822	3815822	4028202
Changes in inventories	67894	74041	78729	85991	99260	114019	131459	147837	170204	211195	237872	292423	320744	358171	402701	439890	473566
Exports of goods and non-factor services	514280	617148	677855	815158	883704	1019783	1161269	1221002	1317202	1636203	2009463	2552610	2485097	2972178	3081312	2910171	2573396
Less imports of goods and non-factor services	561990	661455	681880	786224	825399	1271604	1770399	1827243	2469228	2597187	2877159	3467632	4091258	4489767	4696162	4679106	4682788
GDP by expenditure	4243393	4627582	4920549	5374415	6203725	7126194	8216160	9239786	10637772	13199707	14866996	18276440	20046500	22385657	25168805	27493105	29597905

Annexure 9: Expenditure on Gross Domestic Product At Constant Prices from 1999-2000 to 2015-16 (Rs. Million)

Description/Year	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (F)	2014-15 (R)	2015-16 (P)
Household final consumption expenditure	4835138	5003069	5093193	5274336	5613700	6218633	6379481	6654964	6891844	6858767	7010190	7331681	7700707	7865407	8304881	8566925	9167259
General government final consumption expenditure	498151	464701	539597	564255	565984	585370	857461	848199	840345	946713	941250	941446	1010601	1112404	1129117	1220931	1405639
Gross fixed capital formation	994093	1018240	970737	1034547	1110748	1265310	1456889	1491795	1560186	1482823	1374205	1268315	1299089	1332648	1366256	1558295	1647268
Changes in inventories	96506	99936	102443	108361	116539	124136	131459	137812	140156	144125	146441	150466	155743	162590	170190	178210	188442
Exports of goods and non-factor services	606570	680438	748170	960495	945830	1056749	1161269	1178801	1125141	1087323	1258116	1287961	1094756	1243433	1225028	1147318	1092691
Less imports of goods and non-factor services	998838	1020375	1051460	1169429	1069120	1491709	1770399	1698339	1797894	1511926	1577649	1575767	1526988	1554628	1558582	1533530	1723704
GDP by expenditure	6031620	6246009	6402680	6772565	7283681	7758488	8216160	8613232	8759778	9007825	9152553	9404102	9733907	10161854	10636891	11138150	11777594

Annexure 10:-Gross Fixed Capital Formation, Private, Public & General Government Sectors, by Economic Activity, [at current market prices] from 1999-2000 to 2015-16

Sr. No.	Sectors	Million Rs.																
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
A.	Total GFCF(A+B+C)	678045	731161	714234	809956	920283	1148902	1456889	1588048	1872870	2105285	2111791	2288325	2701458	2990126	3280822	3815822	4028202
B.	Private Sector	459880	498402	552865	639664	701628	880101	1109205	1167260	1363838	1539444	1557909	1697795	1950349	2202307	2483817	2792865	2896454
C.	Public Sector	156851	170030	98700	90522	103193	122861	149606	154851	170617	132458	146033	146849	155813	285094	207012	279632	287236
	General Government	61315	62729	62669	79769	115463	145940	198078	265937	338415	433383	407849	443681	595296	502725	589993	743325	844512
	Private & Public Sector (A+B)	616731	668432	651565	730186	804821	1002962	1258811	1322111	1534455	1671902	1703942	1844644	2106162	2487401	2690829	3072497	3183690
	(Sector wise total)																	
1	Agriculture	155632	155948	161515	176537	198075	226531	254795	280068	303380	371908	442507	537050	624512	698903	725388	820800	868675
2	Mining & Quarrying	18559	22403	26025	79629	4995	17806	28962	39560	32161	46855	59068	42757	51993	44417	70138	65062	94827
3	Manufacturing	115091	130189	142427	138215	175181	208903	287117	269084	311982	354565	270379	259307	285010	372582	381421	422768	429364
	i. Large Scale	112331	127084	139017	134355	170635	203841	281328	262313	304217	345013	258293	243309	266844	351715	357556	396371	400148
	ii. Small Scale (including Slaughtering)	2760	3105	3410	3860	4546	5062	5789	6771	7765	9552	12086	15998	18166	20867	23865	26397	29217
4	Electricity Generation and Distr'n	74408	75242	38112	48961	31114	40922											
	& Gas Distribution							54765	46829	64527	101529	96967	129720	132760	162755	104926	217718	166256
5	Construction	11010	10030	11138	5105	6732	15557	20972	25105	28700	36441	24200	16626	24453	30220	49042	39700	49632
6	Wholesale & Retail Trade	9516	10708	11188	12607	15060	18324	22095	25011	31216	36003	41716	51616	57954	64422	73000	74741	77204
7	Transport & Communication	79475	100866	84464	79475	141689	204454	294731	315179	365492	267784	298998	252884	268177	351980	436682	501819	478626
8	Finance & Insurance	9102	7586	10876	12378	15632	16896	22238	28829	34868	35716	30873	28704	36096	47461	40770	47676	51713
9	Housing Services(O.D)	101247	108386	113961	120630	154203	182320	190127	199116	253391	288378	285256	341565	408562	468463	525816	568524	624205
10	Other Private Services	42690	47073	51859	56649	62140	71249	83010	93330	108738	132723	153978	184415	216645	246198	283646	313689	343187

Annexure 10(a): Gross Fixed Capital Formation: Private Sector by Economic Activity [at current market prices] from 1999-2000 to 2015-16

Sr. No.	Sectors	Million Rs.																
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
A.	Private Sector	459880	498402	552865	639664	701628	880101	1109205	1167260	1363838	1539444	1557909	1697795	1950349	2202307	2483817	2792865	2896454
1	Agriculture	155632	155931	161418	176503	198072	226526	254745	280024	303318	371853	442429	536980	624418	698810	725292	820674	868415
2	Mining & Quarrying	16841	15525	18535	69822	1852	12766	22829	19081	21807	32195	46404	30606	33919	29214	48205	38208	54344
3	Manufacturing	93904	116296	141029	136815	171771	206763	283508	266259	310814	352415	268947	256693	282127	366804	375567	421114	426969
	i. Large Scale	91144	113191	137619	132955	167225	201701	277719	259488	303049	342863	256861	240695	263961	345937	351702	394717	397752
	ii. Small Scale (including Slaughtering)	2760	3105	3410	3860	4546	5062	5789	6771	7765	9552	12086	15998	18166	20867	23865	26397	29217
4	Electricity Generation and Distr'n	2651	3231	8240	6135	557	1818											
	& Gas Distribution							3307	3128	8965	36518	19027	49866	61388	9590	20855	54739	14430
5	Construction	8459	7958	7909	2361	3474	11461	14597	12257	14271	21716	14251	8836	13076	14219	29122	30128	43341
6	Wholesale & Retail Trade	9516	10708	11188	12607	15060	18324	22095	25011	31216	36003	41716	51616	57954	64422	73000	74741	77204
7	Transport & Communication	23262	27884	29580	47992	79994	133038	214628	244252	280008	237193	259350	211803	223175	267704	366473	429381	402037
8	Finance & Insurance	5750	5410	9146	10150	14504	15836	20360	24802	31310	30450	26551	25415	29085	36883	35841	41667	42322
9	Housing Services (O.D)	101247	108386	113961	120630	154203	182320	190127	199116	253391	288378	285256	341565	408562	468463	525816	568524	624205
10	Other Private Services	42690	47073	51859	56649	62140	71249	83010	93330	108738	132723	153978	184415	216645	246198	283646	313689	343187

Annexure 10(b): Gross Fixed Capital Formation: Public & General Government Sectors, by Economic Activity [at current market prices] from 1999-2000 to 2015-16

Sr. No.	Sectors	Million Rs.																
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
B.	Public & General Govt. (B+C)	218165	232759	161369	170292	218655	268801	347684	420788	509032	565841	553882	590530	751109	787819	797005	1022957	1131748
	Public Sector (Autonomous & Semi Aut-Bodies)	156851	170030	98700	90522	103193	122861	149606	154851	170617	132458	146033	146849	155813	285094	207012	279632	287236
1	Agriculture	72	17	97	34	3	5	50	44	62	55	78	70	94	93	96	126	260
2	Mining & Quarrying	1719	6878	7491	9808	3142	5040	6133	20479	10354	14660	12664	12151	18074	15203	21933	26854	40483
3	Manufacturing	21187	13893	1398	1400	3410	2140	3609	2825	1168	2150	1432	2614	2883	5778	5854	1654	2396
4	Electricity Generation and Distr'n & Gas Distribution	71757	72011	29872	42826	30557	39104	51458	43701	55562	65011	77940	79854	71372	153165	84071	162979	151826
5	Construction	2551	2072	3229	2744	3258	4096	6375	12848	14429	14725	9949	7790	11377	16001	19920	9572	6291
6	Transport & Communication	56213	72982	54884	31483	61695	71416	80103	70927	85484	30591	39648	41081	45002	84276	70209	72438	76589
	a. Railways	369	2473	5376	3133	3336	3439	4754	3680	4167	1907	10874	2136	4265	24478	8767	6196	7210
	b. Post Offices & PTCL	27438	31239	26440	6696	5834	10763	15232	11981	14456	7774	8373	11336	14146	12600	18137	18232	17422
	c. Others	28406	39270	23068	21654	52525	57214	60117	55266	66861	20910	20401	27609	26591	47198	43305	48010	51957
7	Finance & Insurance	3352	2176	1730	2228	1128	1060	1878	4027	3558	5266	4322	3289	7011	10578	4929	6009	9391
C.	General Government	61315	62729	62669	79769	115463	145940	198078	265937	338415	433383	407849	443681	595296	502725	589993	743325	844512
	i. Federal	17412	16749	20672	22013	28791	27141	37307	45056	65292	115100	130342	130832	144806	147751	164736	208953	237164
	ii. Provincial	35138	34704	19613	29525	54144	77407	122774	153561	181294	213290	219840	242542	372721	288464	358791	442650	528753
	iii. District Governments	8765	11276	22384	28232	32528	41393	37997	67320	91829	104993	57667	70307	77769	66510	66466	91722	78595

Annexure 11: Gross Fixed Capital Formation, Private, Public & General Government Sectors, by Economic Activity, [at constant prices] from 1999-2000 to 2015-16

Sr. No.	Sectors	Million Rs.																
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
A.	Total GFCF(A+B+C)	994093	1018240	970737	1034547	1110748	1265310	1456889	1491795	1560186	1482823	1374205	1268315	1299089	1332648	1366256	1558295	1647268
B.	Private Sector	661293	691398	746530	822652	841084	959033	1109205	1098151	1141213	1100380	1041102	971509	964142	1005526	1062261	1169195	1207931
C.	Public Sector	243783	241099	140234	110729	133953	145603	149606	144966	151070	93963	94651	82860	74993	122621	82094	108697	116708
	General Government	89017	85742	83973	101166	135711	160674	198078	248679	267903	288480	238452	213946	259954	204501	221902	280404	322629
	Private & Public Sector (A+B)	905076	932497	886764	933381	975037	1104635	1258811	1243116	1292283	1194343	1135753	1054369	1039135	1128147	1144354	1277891	1324639
	(Sector wise total)																	
1	Agriculture	215133	214665	215705	229844	234966	240917	254795	257250	259517	277113	295484	297865	289469	301042	296850	315736	316339
2	Mining & Quarrying	26473	26683	28561	82987	5161	19480	28962	36993	28524	33165	37484	23831	25235	18656	25880	23508	34175
3	Manufacturing	166453	177396	190312	174810	205392	229710	287117	251508	247502	236819	158703	125581	125389	152586	144694	160489	164641
	i. Large Scale	163082	173707	186275	170393	200558	224420	281328	245290	240830	229657	151013	117325	116526	143072	134480	149523	152868
	ii. Small Scale(including slaughtering)	3371	3689	4037	4417	4834	5290	5789	6218	6671	7163	7690	8255	8863	9514	10215	10966	11773
4	Electricity Generation and Distr'n & Gas Distribution	106138	89618	41826	51026	32153	44769	54765	43790	57230	71864	61535	72300	64438	68359	38716	78667	59916
5	Construction	16345	14461	15884	7153	7674	15599	20972	23796	25847	27025	11260	14398	16140	24268	18896	24197	
6	Wholesale & Retail Trade	13815	14636	14991	15988	17701	20175	22095	23388	24712	23965	24390	25308	26206	27456	28195	29494	
7	Transport & Communication	140638	168843	139013	119638	206875	256723	294731	294725	324161	189689	195846	144110	122203	153081	180484	225791	248082
8	Finance & Insurance	13215	10368	14573	15698	18372	18601	22238	26958	27603	23774	18050	13841	15762	19307	15334	17985	19756
9	Housing Services(O.D)	150260	156270	162521	169022	175783	182814	190127	197732	205641	213867	222422	231319	240571	250194	260202	270610	281434
10	Other Private Services	56607	59557	63377	67214	70960	75846	83010	86976	91546	97062	102969	109374	116362	122576	130470	138015	146605

Annexure 11(a): Gross Fixed Capital Formation: Private Sector by Economic Activity [at constant prices] from 1999-2000 to 2015-16

Sr. No.	Sectors	Million Rs.																
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
	Private Sector	661293	691398	746530	822652	841084	959033	1109205	1098151	1141213	1100380	1041102	971509	964142	1005526	1062261	1169195	1207931
1	Agriculture	215048	214646	215600	229807	234963	240912	254745	257209	259462	277068	295422	297817	289415	300990	296800	315671	316204
2	Mining & Quarrying	24022	18491	20341	72766	1914	13967	22829	17843	19341	22788	29448	17058	16463	12270	17787	13805	19585
3	Manufacturing	135694	158406	188438	173035	201384	227354	283508	248867	246577	235388	157866	124320	124130	150236	142493	159865	163726
	i. Large Scale	132323	154717	184402	168618	196550	222064	277719	242648	239906	228225	150176	116065	115267	140722	132278	148899	151953
	ii. Small Scale (including Slaughtering)	3371	3689	4037	4417	4834	5290	5789	6218	6671	7163	7690	8255	8863	9514	10215	10966	11773
4	Electricity Generation and Distr'n & Gas Distribution	3782	3848	9043	6394	576	1989	3307	2925	7951	25848	12075	27793	29796	4028	7695	19779	5200
5	Construction	12554	11473	11279	3308	3960	11492	14597	11618	12852	16105	11112	5984	7699	7594	14411	14340	21130
6	Wholesale & Retail Trade	13815	14636	14991	15988	17701	20175	22095	23388	24712	23965	24390	24890	25308	26206	27456	28195	29494
7	Transport & Communication	41164	46676	48684	72245	116796	167049	214628	228401	248344	168019	169876	120699	101697	116428	151467	193197	208385
8	Finance & Insurance	8348	7394	12255	12872	17047	17434	20360	23192	24786	20269	15523	12255	12701	15004	13480	15718	16168
9	Housing Services (O.D)	150260	156270	162521	169022	175783	182814	190127	197732	205641	213867	222422	231319	240571	250194	260202	270610	281434
10	Other Private Services	56607	59557	63377	67214	70960	75846	83010	86976	91546	97062	102969	109374	116362	122576	130470	138015	146605

Annexure 11(b): Gross Fixed Capital Formation: Public & General Government Sectors, by Economic Activity [at constant prices] from 1999-2000 to 2015-16

Sr. No.	Sectors	Million Rs.																
		1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
	Public & General Govt. (B+C)	332800	326841	224207	211895	269664	306277	347684	393644	418973	382443	333103	296806	334947	327122	303996	389101	439337
	Public Sector	243783	241099	140234	110729	133953	145603	149606	144966	151070	93963	94651	82860	74993	122621	82094	108697	116708
	(Autonomous & Semi Aut-Bodies)																	
1	Agriculture	85	19	105	37	3	5	50	41	55	45	62	48	54	52	50	65	135
2	Mining & Quarrying	2451	8192	8221	10221	3247	5514	6133	19150	9183	10377	8037	6772	8772	6386	8093	9703	14590
3	Manufacturing	30759	18990	1873	1776	4008	2356	3609	2642	925	1431	837	1260	1259	2350	2202	624	915
4	Electricity Generation and Distr'n & Gas Distribution	102356	85769	32783	44632	31577	42780	51458	40865	49279	46016	49461	44507	34642	64331	31021	58888	54716
5	Construction	3790	2987	4605	3845	3714	4107	6375	12178	12994	10920	7758	5276	6699	8546	9857	4556	3067
6	Transport & Communication	99474	122167	90329	47393	90079	89674	80103	66324	75817	21670	25970	23411	20506	36653	29017	32594	39697
	a. Railways	653	4140	8848	4716	4871	4318	4754	3441	3696	1351	7123	1217	1943	10646	3623	2788	3737
	b. Post Offices & PTCL	48554	52292	43515	10080	8518	13515	15232	11203	12821	5507	5484	6460	6446	5480	7496	8204	9030
	c. Others	50267	65735	37966	32597	76690	71841	60117	51679	59300	14812	13363	15733	12117	20527	17898	21602	26930
7	Finance & Insurance	4867	2974	2318	2826	1325	1167	1878	3766	2817	3505	2527	1586	3061	4303	1854	2267	3588
	General Government	89017	85742	83973	101166	135711	160674	198078	248679	267903	288480	238452	213946	259954	204501	221902	280404	322629
	i. Federal	25279	22894	27699	27918	33839	29881	37307	42132	51688	76616	76206	63088	63234	60103	61959	78823	90604
	ii. Provincial	51013	47436	26280	37444	63638	85221	122774	143595	143520	141976	128531	116955	162760	117343	134945	166981	201999
	iii. District Governments	12725	15413	29994	35804	38233	45572	37997	62951	72696	69888	33716	33902	33960	27055	24998	34600	30026