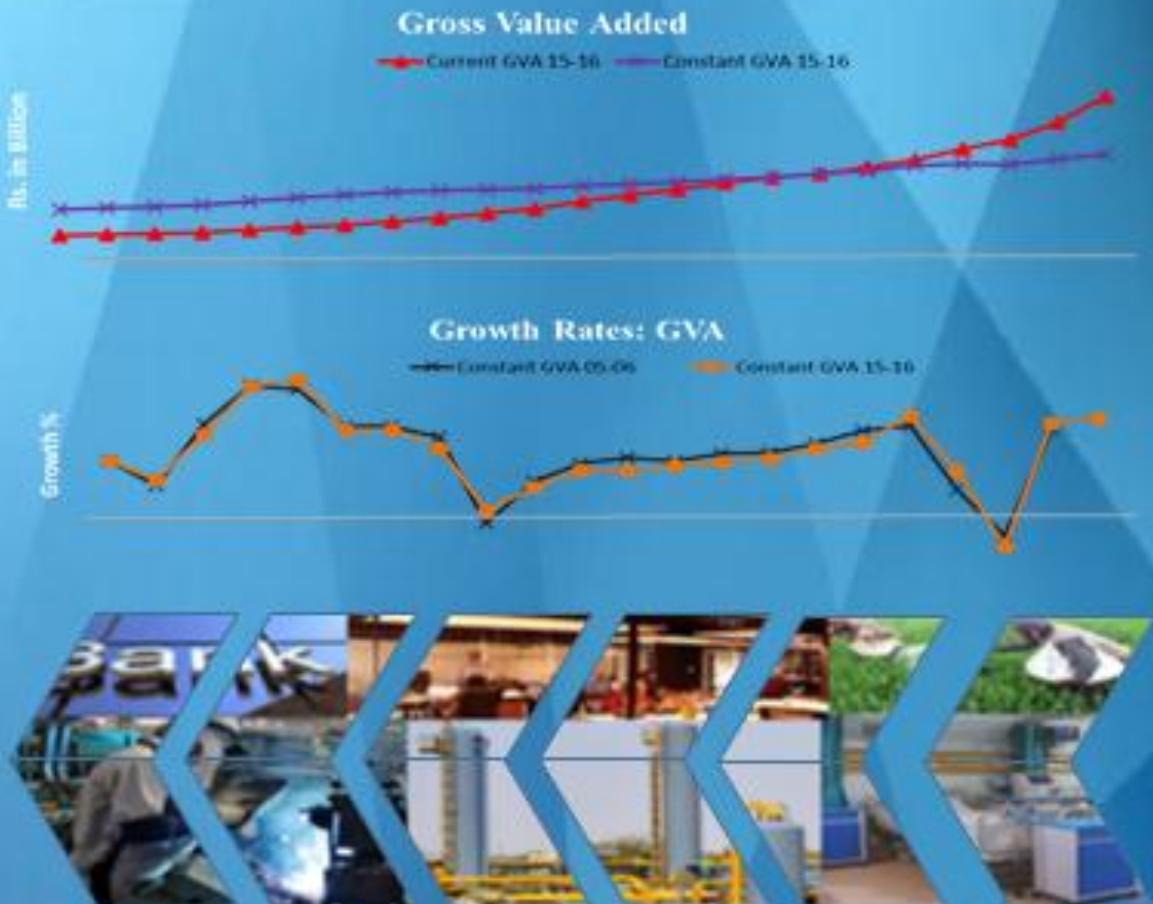




NATIONAL ACCOUNTS OF PAKISTAN:
BACKWARD REVISIONS FOR
THE YEARS 1999-2000 TO 2014-15
ON THE BASE YEAR 2015-16



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Foreword

Pakistan Bureau of Statistics (PBS) completed the change of base of national accounts from 2005-2006 to 2015-16 in January 2022. PBS compiles and publishes several 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 series of national accounts aggregates from 2015-16 to 2021-22 with 2015-16 as the base year at constant and current prices by industrial origin was released in May 2022. However, there was a consistent and growing demand for a longer time series on a common base year by policymakers, planners, academicians, and researchers.

To meet the requirements of both domestic and international data users, PBS initiated work on the compilation of revised series of national accounts from 1999-2000 to 2014-15 on 2015-16 base year while incorporating the concepts of the 2008 SNA. The current document sheds light on the compilation of the revised series of National Accounts of Pakistan from 1999-2000 to 2014-15. An effort has been made to put in all the details of the compilation of value added and GFCF at current and constant prices for all the industries along with a description of sources of data. The notable methodological differences in the 2005-06 and 2015-16 bases have also been highlighted.

The task of the compilation of a backward series of National Accounts at current and constant prices for the period of 1999-2000 to 2014-15 has been completed by the team of national accountants led by S. Ejaz Wasti, Member (National Accounts). I hope this series will be useful for various government departments, research organizations, independent researchers, and educational institutions. Suggestions for improvement are warmly welcomed.

Dr. NAEEM UZ ZAFAR
Chief Statistician
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(June 2023)

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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 2014-15 on 2015-16 base year is another achievement by the National Accounts Wing of the Pakistan Bureau of Statistics. National Accounts Wing is responsible for the compilation of a variety of macroeconomic statistics including GDP, per capita income and gross capital formation, etc. These estimates are compiled following 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 series of national accounts aggregates from 2015-16 onwards was released instantly while implementing the results of rebasing for the year 2015-16. National Accounts Wing started work on the compilation of backward series of national accounts 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 detailed compilation of Gross Value Added (GVA) and Gross Fixed Capital Formation (GFCF) estimates at current and constant prices at detailed industrial levels for the years 1999-2000 to 2014-15 on the methodology adopted during the change of base of national accounts from 2005-06 to 2015-16. All the details have been documented to facilitate the understanding of the macroeconomic aggregates of Pakistan. This document provides an 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 the completion of this task is the result of a lot of dedicated efforts from the team of national accountants. It is a fact that it was not possible without teamwork. I appreciate the hard work of the team. I congratulate all the staff of the National Accounts Wing for their determined efforts to complete this task.

The continuous support of Dr. Naeem Uz Zafar, Chief Statistician, Pakistan Bureau of Statistics has enabled us to come up with a valuable document. His encouragement has always been a source of inspiration for the staff of the National Accounts Wing. Suggestions for improvement are welcome.

S. EJAZ WASTI
Member, National Accounts
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(June 2023)

Acknowledgement

One of the major strengths of National Accounts is to offer long and continuous time series for economic analysis. In theory, new concepts and methodologies of national accounts should be carried as far backward as possible to avoid breaks in the National Accounts series. In practice, this task is complex because the data to compile backward periods under new principles may not be available or new classifications may simply not be applicable to previous periods. However, the team of National Accounts experts under the guidance of Dr. Liaqat Ali, Chief Statistical Officer successfully completed the backward series from 2014-15 to 1999-2000 on the new base year of 2015-16. In fact soon after the approval of the new base in January 2022, the team worked day in and day out to complete this voluminous document.

I am greatly indebted to Mr. Fazil Baig, DDG, Dr. Muhammad Khalid Farooq, CSO, Dr. Muhammad Adil, CSO, Dr. Muhammad Raashid, CSO, Mr. Muhammad Asif, CSO, Mr. Muhammad Younas Khattak, CSO (R), Mr. Waqar Aslam, CSO, Mr. Tahir-ul Islam, SO, Mrs. Hina Nousheen, SO, Mrs. Naeema Yousaf, SO, Mrs. Tayyaba Javeed, SO, Mr. Badshah Hayat, SO, Mr. Shaukat Sagheer Raja, SO, Mrs. Farah Deeba, SO, Mr. Arshad Mahmood, SO, Mrs. Seema Nasim, SO, Mrs. Naseem Atta, SO, Miss. Hafsa Anwer Jan, SO, Mr. Muhammad Shehzad Khan, SO, Mr. Ahsan Nadeem, SO and the statistical assistants who worked dedicatedly to complete the publication along with their routine work.

I really appreciate the invaluable contribution of Dr. Liaqat Ali, Chief Statistical Officer/ Coordinator for providing technical input and setting theoretical foundation to this valuable document. His dedication and commitment played pivotal role in finalization of this publication.

The patronage of Dr. Naeem uz Zafar, Chief Statistician PBS and Syed Ejaz Wasti, Member National Accounts PBS, kept our spirits high during the compilation of backward series. Able guidance of Syed Ejaz Wasti enabled the national accounts staff to work as a team and bring out their best. In the end I would like to confess that all positive attributes are because of National Accounts officers and staff and all shortcomings attributable to me.

(Attiq-ur-Rehman)
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June, 2023

Table of contents

Foreword.....	3
Acknowledgment – Team of National Accounts.....	4
Preface	5
Acknowledgement.....	6
Table of contents	7
List of tables	9
List of Figures.....	10
List of Annexures.....	11
List of abbreviations and acronyms.....	12
CHAPTER 1	13
Overview.....	13
1.1 Introduction.....	13
1.2. Why Revisions in data on National Accounts?	13
1.3. Soundness in Backcasting Compilation and Validation	13
1.4. An Overview of Backcasting methods	14
1.4.1 Bottom-up Estimation	14
1.4.2 Revision by Superposition of Corrections	14
1.4.3 Simple Proportional Method	14
1.4.4 Retropolation, Interpolation, and Mixed Splicing methods	15
1.4.5. Modeled data approach	16
1.4.6. Residual Estimation.....	16
CHAPTER 2	17
2. Industry-wise Methodology of GVA at Current and Constant Prices.....	17
2.1. Agriculture, Forestry, and Fishing	17
2.1.1. Crops.....	17
2.1.2. Livestock.....	22
2.1.3. Forestry	23
2.1.4. Fishing	23
Summary Results: Agriculture, forestry and fishing	27
2.2. Industrial Activities.....	28
2.2.1. Mining and Quarrying	28
2.2.2. Manufacturing.....	28
2.2.3. Electricity, Gas, and Water Supply.....	34
2.2.3. Construction	36
Summary Results: Industrial Activities.....	38

2.3. Services.....	39
2.3.1. Wholesale and Retail Trade	39
2.3.2. Transportation and Storage.....	39
2.3.3. Accommodation and Food Services Activities (Hotels & Restaurants)	43
2.3.4. Information and Communication	43
2.3.5. Financial and Insurance Activities.....	44
2.3.6. Real Estate Activities (Ownership of Dwellings)	48
2.3.7. Public Administration and Social Security (General Government)	48
2.3.8. Education.....	48
2.3.9. Human Health and Social Work Activities	52
2.3.10. Other Private Services.....	52
2.5. Compilation of Net Primary Income	53
Summary Results: Services	56
2.4 Summary Results: Overall Economy.....	57
CHAPTER 3	59
3. Compilation of Expenditure on GDP at Current and Constant Prices	59
3.1. Introduction	59
3.2. Household final consumption expenditure	59
3.3. NPISH final consumption expenditure	59
3.4. General government final consumption expenditure	60
3.5. Gross fixed capital formation (GFCF).....	60
3.5.1. Agriculture, Forestry, and Fishing	60
3.5.2. Industrial Activities	61
3.5.3. Services.....	62
3.6. Changes in inventories.....	65
3.7. Valuables.....	65
3.8. Exports and Imports of Goods and Services.....	65
Summary table: Expenditure on GDP.....	66
Annexures.....	67
References.....	99

List of tables

Table 1: Output, IC and GVA of important crops on 2015-16 base year	19
Table 2: Output, IC and GVA of other crops on 2015-16 base year	20
Table 3: Output, IC and GVA of cotton ginning on 2015-16 base year	21
Table 4: Output, IC and GVA of livestock on 2015-16 base year	24
Table 5: Output, IC and GVA of forestry on 2015-16 base year	25
Table 6: Output, IC and GVA of fishing on 2015-16 base year	26
Table 7: Output, IC and GVA of agriculture, forestry and fishing on 2015-16 base year	27
Table 8: Output, IC and GVA of mining and quarrying on 2015-16 base year	29
Table 9: Output, IC and GVA of large scale manufacturing on 2015-16 base year	30
Table 10: Output, IC and GVA of small scale manufacturing on 2015-16 base year	32
Table 11: Output, IC and GVA of slaughtering on 2015-16 base year	33
Table 12: Output, IC and GVA of electricity, gas and water on 2015-16 base year	35
Table 13: Output, IC and GVA of construction on 2015-16 base year	37
Table 14: Output, IC and GVA of industrial activities on 2015-16 base year	38
Table 15: Output, IC and GVA of wholesale and retail trade on 2015-16 base year	41
Table 16: Output, IC and GVA of transportation and storage on 2015-16 base year	42
Table 17: Output, IC and GVA of accommodation and food services on 2015-16 base year	45
Table 18: Output, IC and GVA of information and communication on 2015-16 base year	46
Table 19: Output, IC and GVA of financial and insurance activities on 2015-16 base year	47
Table 20: Output, IC and GVA of real estate activities on 2015-16 base year	49
Table 21: Output, IC and GVA of public administration and social security on 2015-16 base year	50
Table 22: Output, IC and GVA of education on 2015-16 base year	51
Table 23: Output, IC and GVA of human health and social work on 2015-16 base year	54
Table 24: Output, IC and GVA of other private services on 2015-16 base year	55
Table 25: Output, IC and GVA of services on 2015-16 base year	56
Table 26: Output, IC and GVA of overall economy on 2015-16 base year	57
Table 27: Comparison of real growth rates by major industry groups in 2005-06 and 2015-16 rebasing	58
Table 28: Comparison of Components of Expenditure on GDP at current prices (Selected years).....	66

List of Figures

Figure 1: Comparison of growth rates of important crops	19
Figure 2: Comparison of growth rates of other crops.....	20
Figure 3: Comparison of growth rates of cotton ginning.....	21
Figure 4: Comparison of growth rates of livestock	24
Figure 5: Comparison of growth rates of forestry	25
Figure 6: Comparison of growth rates of fishing	26
Figure 7: Comparison of growth rates of agriculture, forestry and fishing	27
Figure 8: Comparison of growth rates of mining and quarrying	29
Figure 9: Comparison of growth rates of large scale manufacturing.....	30
Figure 10: Comparison of growth rates of small scale manufacturing	32
Figure 11: Comparison of growth rates of slaughtering	33
Figure 12: Comparison of growth rates of electricity, gas, and water supply	35
Figure 13: Comparison of growth rates of construction	37
Figure 14: Comparison of growth rates of industrial activities.....	38
Figure 15: Comparison of growth rates of wholesale and retail trade	41
Figure 16: Comparison of growth rates of transportation and storage.....	42
Figure 17: Comparison of growth rates of accommodation and food services activities	45
Figure 18: Comparison of growth rates of information and communication.....	46
Figure 19: Comparison of growth rates of financial and insurance activities	47
Figure 20: Comparison of growth rates of real estate activities	49
Figure 21: Comparison of growth rates of public administration and social security.....	50
Figure 22: Comparison of growth rates of education	51
Figure 23: Comparison of growth rates of human health and social work	54
Figure 24: Comparison of growth rates of other private services	55
Figure 25: Comparison of growth rates of services	56
Figure 26: Comparison of growth rates of overall GVA.....	57

List of Annexures

Annexure 1: Macroeconomic Indicators: Growth Rates from 1951-52 to 2022-23	67
Annexure 2: National accounts Main Aggregates (at current prices) from 1960-61 to 2022-23	69
Annexure 3: National Accounts Main Aggregates (at constant prices) from 1960-61 to 2022-23	71
Annexure 4: Gross Domestic Product of Pakistan (at current basic prices) from 1999-2000 to 2022-23	73
Annexure 5: Gross Domestic Product of Pakistan (at constant basic prices of 2015-16) from 1999-2000 to 2022-23	75
Annexure 6: Real Growth Rates of GDP at constant basic prices of 2015-16 from 1999-2000 to 2022-23.....	77
Annexure 7: Sectoral Shares in GDP (at constant basic prices of 2015-16) from 1999-2000 to 2022-23	79
Annexure 8: Sectoral Shares in GDP (at current basic prices) from 1999-2000 to 2022-23.....	81
Annexure 9: Expenditure on Gross Domestic Product at Current Prices from 1999-2000 to 2022-23.....	83
Annexure 10: Expenditure on Gross Domestic Product at Constant Prices from 1999-2000 to 2022-23.....	85
Annexure 11: Gross Fixed Capital Formation, Private, Public & General Government Sectors, by Economic Activity, [at current market prices] from 1999-2000 to 2022-23.....	87
Annexure 12: Gross Fixed Capital Formation: Private Sector by Economic Activity [at current market prices] from 1999-2000 to 2022-23	89
Annexure 13: Gross Fixed Capital Formation: Public & General Government Sectors, by Economic Activity [at current market prices] from 1999-2000 to 2022-23	91
Annexure 14: Gross Fixed Capital Formation, Private, Public & General Government Sectors, by Economic Activity, [at constant prices] from 1999-2000 to 2022-23	93
Annexure 15: Gross Fixed Capital Formation: Private Sector by Economic Activity [at constant prices] from 1999-2000 to 2022-23.....	95
Annexure 16: Gross Fixed Capital Formation: Public & General Government Sectors, by Economic Activity [at constant prices] from 1999-2000 to 2022-23	97

List of abbreviations and acronyms

APL	Asia Petroleum Limited
CAA	Civil Aviation Authority
CMI	Census of Manufacturing Industries
COFOG	Classification of the Functions of the Government
CPI	Consumer Price Index
CRS	Crop Reporting Services
DFI's	Development Finance Institutions
FISIM	Financial Intermediation Services Indirectly Measured
FOTCO	Fauji Oil Terminal and Distribution Company
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GNI	Gross National Income
GPA	Gawadar Port Authority
GVA	Gross Value Added
IC	Intermediate Consumption
ISIC	International Standard Industrial Classification
IT	Information Technology
IVO	Implicit Volume Index for Output
KPT	Karachi Port Trust
LSM	Large Scale Manufacturing
M/O NFS&R	Ministry of National Food Security & Research
NGOs	Non-Governmental Organizations
NPISH	Non-Profit Institutions Serving Households
NTRC	National Transport Research Centre
PARCO	Pak-Arab Refinery Ltd.
PBC	Pakistan Broadcasting Corporation
PBS	Pakistan Bureau of Statistics
PNSC	Pakistan National Shipping Corporation
PQA	Port Qasim Authority
PSIC	Pakistan Standard Industrial Classification
PSX	Pakistan Stock Exchange
PTCL	Pakistan Telecommunication Company Limited
PTV	Pakistan Television
QIM	Quantum Index of Large-Scale Manufacturing
SBP	State Bank of Pakistan
SIA	Sialkot International Airport
SNA	System of National Accounts
SNGPL	Sui Northern Gas Pipeline
SSGC	Sui Southern Gas Company
SSMI	Small-Scale Manufacturing Industries
WAPDA	Water and Power Development Authority
WPI	Wholesale Price Index
WRT	Wholesale and Retail Trade

CHAPTER 1

Overview

1.1 Introduction

Pakistan Bureau of Statistics (PBS) changed the base of National Accounts from 2005-06 to 2015-16 in January 2022 incorporating the concepts of the 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), per capita income, and Expenditure on GDP have been compiled and released from 2015-16 to 2021-22 (P) on 2015-16 base year. Keeping in view, the requirement of academicians, researchers, and policymakers, PBS has initiated work on the generation of backward series of macroeconomic aggregates to produce a long time series that can be used for modeling, forecasting, business cycle analysis, structural analysis, productivity analysis, and other administrative purposes. This methodology brief summarizes the concepts, sources, and methods used for the compilation of backward series of macroeconomic aggregates from 2015-16 to 1999-2000 on the 2015-16 base year.

1.2. Why Revisions in data on National Accounts?

The national accounts aggregates are subject to two types of revisions i.e. i) regular revisions and ii) comprehensive or major revisions. The objective of these revisions is to include new data, new statistics, new definitions, and/or new methods in the system of national accounts.

- The **regular revisions** are made on annual basis. The GDP estimates are published in the month of May every year by incorporating data for six to nine months and projected for the whole financial year i.e. 1st July to 30th June on provisional basis. The provisional estimates are revised in (second) year and finalized in the third year.
- The **comprehensive or major revisions** are carried out at the time of change of base year/reference year for the compilation of national accounts. The major revisions incorporate improvements in data sources and re-assessment of the contribution of various industries to national GDP owing to structural changes in the economy as well as various macroeconomic dynamics at national and international levels.

PBS has recently completed change of base of national accounts from 2005-06 to 2015-16. The national accounts data for the 2015-16 base year is currently available on the official website of PBS from 2015-16 to 2022-23 (P). The data on the 2005-06 base year is available from 1999-2000 to 2020-21 (P). Due to changes in concepts, classifications, the introduction of new industries, new or revised data sources, the implementation of new interpolation/projection techniques, and other methodological changes, the breaks exists in various macroeconomic aggregates. To facilitate the data users for longer-term analysis, a consistent and harmonized data series on the same base year without breaks, was required. Therefore, PBS, while using its expertise and experience in compiling backward series, has employed a statistical technique known as “**Backcasting**” to ensure the coherence of the time series data across time. It is also called “**Backward calculation**” or “**Backward projection**”. The main effect of these revisions is to affect all national accounts aggregates. Resultantly all time series data associated with the national accounts aggregates have been revised as per changes adopted in the 2015-16 rebasing.

1.3. Soundness in Backcasting Compilation and Validation

The United Nation's (draft) Handbook on Backcasting-2018 (Para's 1.26 & 1.29) documents the following characteristics of sound Backcasting compilation and validation techniques:-

- Data compilation, data adjustments, transformations, and statistical analysis employs

sound statistical techniques. The reliance on fixed ratios derived from benchmarks or other sources is monitored.

- Methods are used to preserve the economic significance of the time series qualities of existing National Accounts time series.
- Assessment and validation of intermediate data and statistical outputs are the part of the process. Statistical discrepancies in intermediate data are assessed and investigated and measures are taken to remove them.
- A systematic procedure is used to assess the potential discrepancies in intermediate data.

PBS has made all-out efforts to follow the aforementioned principles while compiling the backward series of national accounts.

1.4. An Overview of Backcasting methods

The compilation of backward series of national accounts aggregates at constant and current prices is a complex task that may include multiple types of consistency issues. Each consistency issue could be best corrected by one or more methods depending on the availability of direct data, corroborating data, indicators, or no data at all. An overview of backcasting methods, presented in the UN's Handbook and those applied by the PBS, in the past is presented below:-

1.4.1 Bottom-up Estimation

Bottom-up estimation refers to compiling new estimates by building them up from source data components to estimate the variable or account in question. Bottom-up estimation is what is usually done for the current period estimates, at least for the benchmark levels. Also, projected series are often built at the lowest level of detail and then aggregated. From a backcasting perspective, this may mean using a new data source for the back period and compiling the estimates using a bottom-up methodology. It could also include transforming the previously used data sources to the new basis using transition matrices or supplementary information and then compiling using the method which matches the new approach. In terms of quality – bottom-up approaches usually produce the most robust results. This approach is often used for periods that are not too distant in the past for which the source data is available in accordance with standards, concepts and definitions of new base year.

1.4.2 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. The starting point is the consistent data set of national accounts which were compiled in the past. Corrections resulting from the revision process are added to this basic set. The revision process involves all the past years.

1.4.3 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 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 the backward calculation, especially in a first attempt to determine the new path of the involved time series. It is an approximate solution that does not analyze in a very deep way the revision effects on time series but on the contrary, are a low resource and less time-consuming approach to the backward calculation.

1.4.4 Retropolation, Interpolation, and Mixed Splicing methods

These backward estimation techniques are referred to as mechanical splicing methods useful for piecing together old and new time series at the point where the discrepancy between the old and new is known. They are generally used when no direct data source is available to re-compile the variables on a new basis. They are based on knowledge of the source of the discrepancy between the new and old estimates and involve assumptions about the “persistence” of the phenomenon that is the source of the discrepancy over the historical time frame. These mechanical approaches are recommended for lower-level series as opposed to aggregates.

i) **Retropolation/ Growth Rates Method** refer to backward estimation using the growth rates of the old series on the new level at the link year or quarter. Retropolation raises or lowers the level of the historical series in constant proportion over time. It can be done using a simple ratio calculation of the new-to-old series at an overlap period and using that ratio to extend the series back to the first recorded date. It maintains the growth of the time series but raises or lowers the level of the series, increasing or decreasing its weight in the aggregation hierarchy. If revised growth rates for a certain variable are available, they are used. The revision process works at the level of detail chosen.

ii) **Interpolation** refers to extending a series backward through a specific value in the past. It assumes that the discrepancy has been generated throughout the time series. Since emerging economic phenomena tend to grow over time, this method can be useful. It changes the growth rate of the original series by a constant fraction. This is appropriate when it is known that the starting point of the phenomenon was estimated using a sound statistical procedure and the level at that year should be considered a benchmark. The benchmark year is the one for which the new definitions and accounting rules are used for the first time. The new figures for that year are determined at a very detailed level using the new accounting rules. The benchmark year 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. This method can be applied through the full benchmark year method as described below:-

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. This method has the following advantages:

- 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 a 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 keeping 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.

iii) **Mixed Splicing** offers an alternative between the two assumptions and gives the opportunity of using extraneous information to complete the backward estimation. If the phenomenon was likely to exist and not accounted for in the historical period but not likely in the same proportion over time, an approach of using some auxiliary information to estimate either the weight of the phenomenon in the total over time or the value of the phenomenon at T_0 and may be other intervening points, the interpolation could be used to complete the time series. If there is no auxiliary information, a simple approach of a weighted average of the retropolation approach and the interpolation approach over time can be used, where the weights are designed to set a profile of the pattern of the discrepancy over time.

1.4.5. Modeled data approach

There may be consistency issues for which no directly measured data exist for the historical period, but there is data that is related or could be used in some form of a modeling framework to create estimates. There are numerous methods under this generic approach and three generic ones will be discussed here: Chow and Lin type modeled data; the Supply-Use or Input-Output modeled data; and, Stock-Flow modeling.

i) **The Chow and Lin** modeling approach refer to using econometric techniques to establish a parametric relationship between indicator data and benchmark data and using the relationship to do the backward estimation. The method requires benchmark data for the current estimation period and related indicator data available for some or all the backcasting periods. The model is estimated for the current period and the estimated coefficients are used to create estimates for the back period. The method relies on the assumption that the relationship of the indicators to the estimate is stable over time and applies to the back period.

ii) **Supply-Use or Input-Output** modeling could also be used to do the backward estimation. It would require that some form of Supply-Use tables or Input-Output tables exist for some or part of the period. Supply-Use methods are useful for estimating either part of supply when use statistics are available or vice versa. Again, the method depends on the assumption that the Supply-Use relationship holds for the entire period. An example could be an estimation of some types of products for the unrecorded economy when independent consumption statistics are available.

iii) **Stock and Flow** modeling is another potential method for some backcasting purposes. The perpetual Inventory Model is often used to estimate consumption of fixed capital at replacement cost valuation because business data were traditionally not recorded on that basis. This method requires detailed investment flow data and information about asset lives and discards patterns as well as price statistics by asset type. Other uses of Stock-Flow modeling could include the imputation of property income flows from the stocks of financial assets and data on rates of return.

1.4.6. Residual Estimation

Residual estimation refers to the use of National Accounting identities to fill in gaps for some new variables. This can be used for identifying a sub-sector that was previously embedded in a higher-level sector or estimating a variable that can be isolated using identities in the system. There are general assumptions involved in this type of estimation and the quality of the result will depend on the reasonableness of the assumptions.

CHAPTER 2

2. Industry-wise Methodology of GVA at Current and Constant Prices

The backward series of National Accounts in Pakistan has principally been compiled by following the bottom-up approach. The estimates of output, Intermediate Consumption (IC), and Gross Value Added (GVA) have been compiled at the most detailed level i.e. **Bottom up estimation** permissible by the data situation for each industry. **Retropolation, Interpolation, and Mixed Splicing** methods have been used for most industries. Fresh as well as residual estimations have also been made in some industries.

2.1. Agriculture, Forestry, and Fishing

2.1.1. Crops

For compilation purposes, crops are divided into three distinct components i.e. important crops, other crops, and cotton ginning. The methodology for compiling the backward series of output and IC at current and constant prices is described below:-

i) Important Crops

The important crops comprise of wheat, rice, cotton, sugarcane, and maize. The composition of the industry in the old base and 2015-16 rebasing is the same. The crop-wise information on production supplied regularly by provincial Crop Reporting Services (CRS) on an annual basis and updated crop-wise farm gate prices in 2015-16 rebasing have been used to compile the output of wheat, rice, cotton, sugarcane, and maize separately at constant prices. By-products have been included in the crops to which these belong. Product-specific Wholesale Price Indices (WPIs) have been used to obtain the output of important crops at current prices. The summary of output, IC and GVA of important crops at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 1, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 1.

ii) Other Crops

The composition of other crops has remained the same in 2015-16 rebasing except for the addition of nurseries, which have been estimated separately through a study. Like important crops, the output of other crops for backward series has also been compiled by using crop-wise production supplied by CRS and updated farm-gate prices. The data on flowers available in the old base has been used to derive the backward series of this component. The backward series of nurseries has been compiled at constant prices through interpolation methodology (described in Section 1.4.4) by using the inter-census growth of urban dwellings. While the current output of other crops has been compiled by using crop-specific WPI deflators, the backward series of the output of nurseries at current prices compiled through WPI-general.

The IC for crops includes the value of seed, fertilizer, pesticides, irrigation water, and ploughing & planking. Local transport charges on seed, fertilizer, and pesticide as well as losses of crops during the transportation of output from fields to home or market have also been included in the IC. While the estimates of inputs such as fertilizer, pesticides, and water are based on annual regular data by sources, the remaining inputs are estimated based on base year prices/ratios. Hence, the estimates of fertilizer, pesticides, and water in backward series have been compiled by using annual regular data available in the national accounts records whereas updated base year prices/ratios have been used to estimate other inputs e.g. seed, ploughing & planking, transport charges and losses of crops. Relevant WPI deflators have been used for

the conversion of inputs from current prices into constant prices and vice versa. The IC of nurseries at constant and current prices has been derived by using the base year input-output ratio.

The aggregated IC in the backward series has been further disaggregated into important crops and other crops by using their updated respective weights in the base year which has enabled the derivation of GVA of important crops and other crops separately. It is worth mentioning here that crop-wise GVA has not been compiled due to data limitations for inputs.

The summary of output, IC and GVA of other crops at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 2, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 2.

iii) Cotton Ginning

Seed cotton (Phutti) is brought to cotton ginning factories for processing. The first mechanical process involved in the processing of cotton is ginning. Ginning is the process of separating lint from seed to cotton. The base year estimates of output, IC, and GVA of this component have been estimated through a special study. The backward series of output and IC of the component at constant prices has been compiled through the growth of cotton output. A WPI-fiber crop has been used to obtain estimates at current prices.

The summary of output, IC and GVA of cotton ginning at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 3, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 3.

Table 1: Output, IC and GVA of important crops on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	452390	120534	331856		1713776	545683	1168093	
2000-01	451079	126031	325048	-2.05	1593705	542972	1050733	-10.05
2001-02	432802	133067	299735	-7.79	1554402	544944	1009458	-3.93
2002-03	493720	147564	346156	15.49	1619952	554468	1065484	5.55
2003-04	596106	167993	428112	23.68	1654028	583088	1070940	0.51
2004-05	660090	195289	464801	8.57	1904609	617570	1287039	20.18
2005-06	677916	230043	447873	-3.64	1864889	619634	1245255	-3.25
2006-07	772352	241083	531269	18.62	1981981	625850	1356131	8.90
2007-08	963333	292643	670690	26.24	1913660	623256	1290405	-4.85
2008-09	1364437	404479	959959	43.13	2010239	628803	1381436	7.05
2009-10	1576167	477483	1098684	14.45	1995919	677595	1318324	-4.57
2010-11	1988400	546425	1441975	31.25	2003033	636347	1366687	3.67
2011-12	1940069	666644	1273424	-11.69	2093280	623815	1469465	7.52
2012-13	2065527	681363	1384164	8.70	2101124	614510	1486614	1.17
2013-14	2452917	766819	1686097	21.81	2243727	660504	1583223	6.50
2014-15	2275060	740978	1534082	-9.02	2239808	686082	1553726	-1.86
2015-16	2131131	660777	1470354	-4.15	2131131	660777	1470354	-5.37
2016-17	2356979	683603	1673376	13.81	2281962	772391	1509571	2.67
2017-18	2442995	710712	1732283	3.52	2330364	757187	1573177	4.21
2018-19	2531983	830745	1701238	-1.79	2169909	731713	1438196	-8.58
2019-20	2890936	867424	2023512	18.94	2225834	713860	1511974	5.13
2020-21	3728801	991810	2736991	35.26	2392390	792911	1599479	5.79

Note: GVA figures may differ from those on the website of the PBS due to FISIM

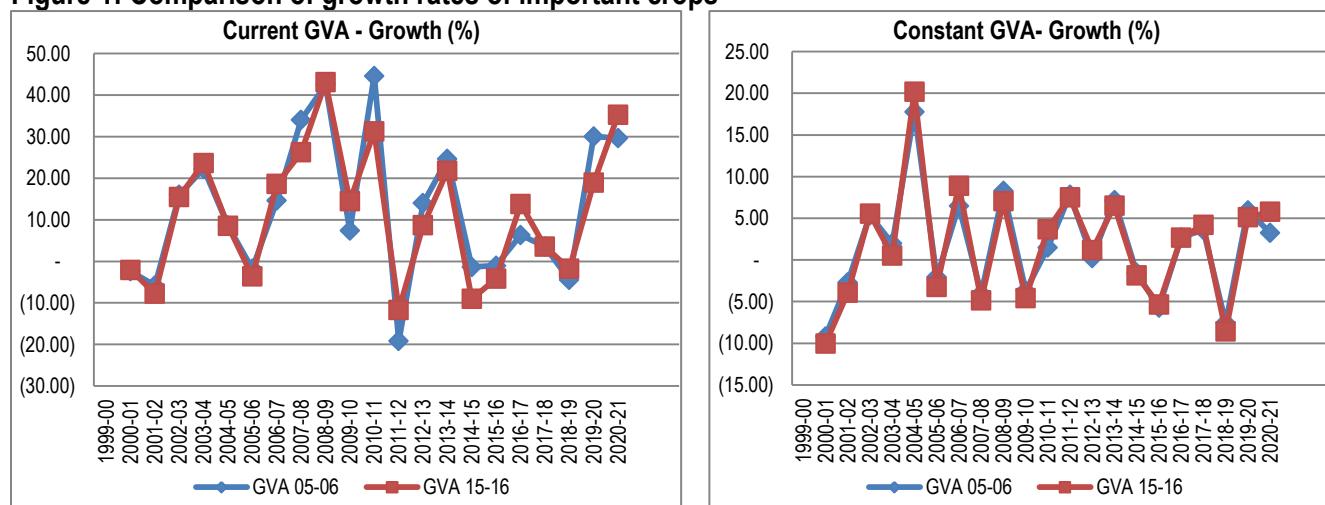
Figure 1: Comparison of growth rates of important crops

Table 2: Output, IC and GVA of other crops on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	295906	35951	259954		1165613	162217	1003397	
2000-01	295857	37610	258248	-0.66	1132537	161498	971039	-3.22
2001-02	298608	39717	258891	0.25	1108725	162156	946569	-2.52
2002-03	288794	44028	244766	-5.46	1088252	165034	923219	-2.47
2003-04	311456	50106	261350	6.78	1110903	173519	937384	1.53
2004-05	358847	58201	300646	15.04	1147214	183728	963486	2.78
2005-06	398184	68527	329657	9.65	1189197	184426	1004771	4.29
2006-07	449321	71877	377444	14.50	1220319	186346	1033973	2.91
2007-08	508328	87219	421109	11.57	1236670	185683	1050987	1.65
2008-09	600545	120352	480193	14.03	1242150	187414	1054735	0.36
2009-10	635727	142076	493651	2.80	1177591	201841	975750	-7.49
2010-11	742742	162809	579933	17.48	1177410	189845	987564	1.21
2011-12	830674	198447	632228	9.02	1088311	186282	902029	-8.66
2012-13	964915	203083	761832	20.50	1138958	183670	955288	5.90
2013-14	1013727	228542	785184	3.07	1105043	197292	907750	-4.98
2014-15	1091333	221076	870257	10.83	1107314	204927	902387	-0.59
2015-16	1112532	197633	914899	5.13	1112532	197633	914899	1.39
2016-17	1202525	204641	997884	9.07	1134166	230528	903638	-1.23
2017-18	1312395	212966	1099429	10.18	1171621	226209	945412	4.62
2018-19	1404291	249083	1155208	5.07	1198276	218881	979395	3.59
2019-20	1766392	260604	1505789	30.35	1282779	213794	1068985	9.15
2020-21	2098891	297922	1800969	19.60	1390826	237155	1153671	7.92

Note: GVA figures may differ from those on the website of the PBS due to FISIM

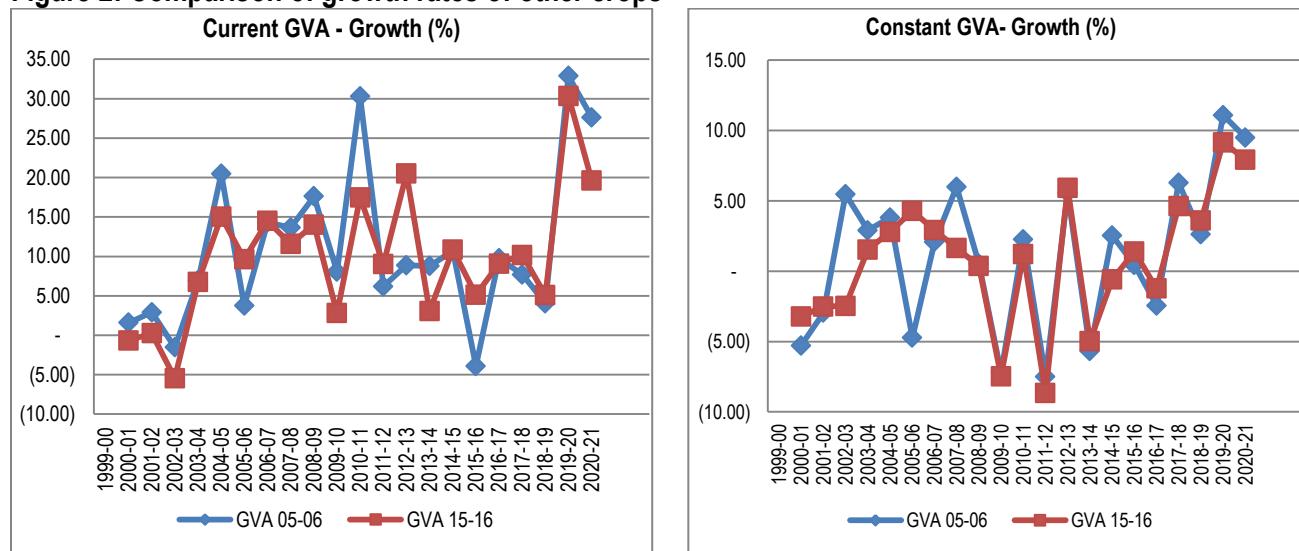
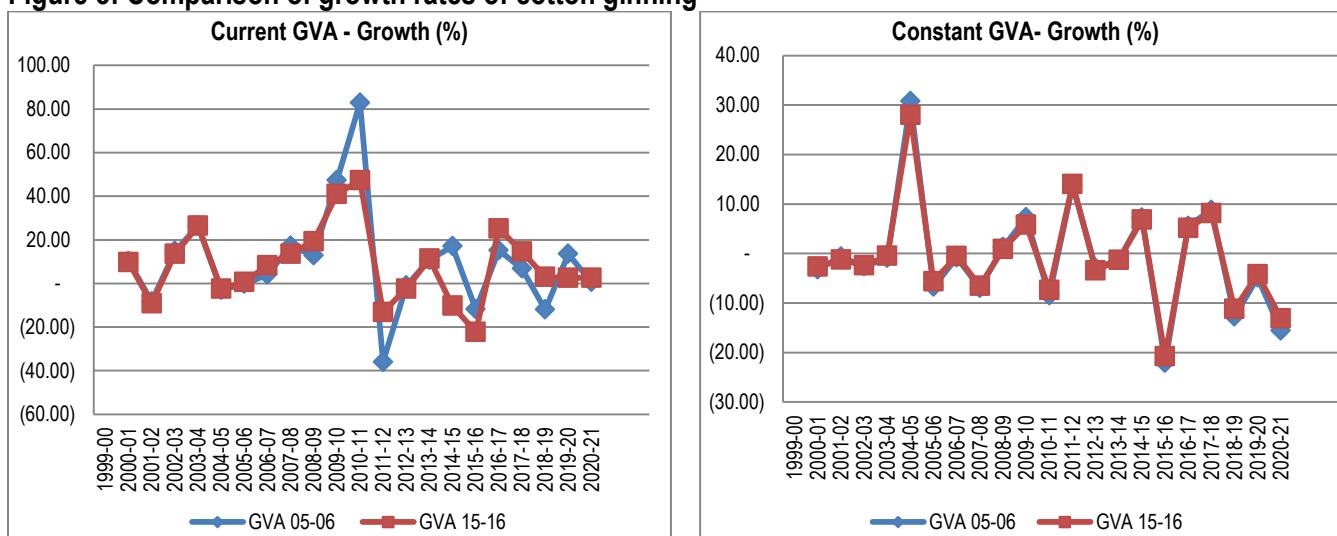
Figure 2: Comparison of growth rates of other crops

Table 3: Output, IC and GVA of cotton ginning on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	158762	114807	43954		445948	316361	129587	
2000-01	178663	130419	48244	9.76	429019	302877	126142	-2.66
2001-02	160258	116463	43795	-9.22	420794	296192	124602	-1.22
2002-03	184980	135223	49757	13.61	405858	284262	121596	-2.41
2003-04	237691	174785	62907	26.43	402026	281004	121021	-0.47
2004-05	225742	164367	61375	-2.43	555685	400797	154888	27.98
2005-06	226722	164954	61769	0.64	514832	368611	146221	-5.60
2006-07	241099	174206	66893	8.30	510238	364752	145485	-0.50
2007-08	269932	193942	75990	13.60	465392	329442	135950	-6.55
2008-09	312814	222172	90641	19.28	469776	332594	137182	0.91
2009-10	469942	342192	127750	40.94	505076	359899	145177	5.83
2010-11	713842	525639	188204	47.32	454695	320258	134438	-7.40
2011-12	610102	446641	163462	-13.15	539752	386434	153318	14.04
2012-13	576432	416900	159532	-2.40	514525	366441	148083	-3.41
2013-14	636145	458568	177577	11.31	504593	358397	146196	-1.27
2014-15	558297	398985	159312	-10.29	548965	392779	156186	6.83
2015-16	399451	275671	123780	-22.30	399451	275671	123780	-20.75
2016-17	521071	366087	154984	25.21	427343	297172	130171	5.16
2017-18	612272	434689	177583	14.58	474383	333632	140751	8.13
2018-19	634334	451504	182830	2.95	400998	275998	125000	-11.19
2019-20	610069	422707	187362	2.48	375705	255938	119767	-4.19
2020-21	564874	372668	192206	2.59	302444	198396	104048	-13.12

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 3: Comparison of growth rates of cotton ginning

2.1.2. Livestock

Livestock is an important and leading component of agriculture in Pakistan with more than a 14% share of the national economy. The output of livestock output includes the natural growth and regeneration of animals such as buffaloes and cattle, sheep and goats, camels, horses, mules and asses, the value of animals sold for slaughter, livestock products (milk, wool & hair, draught power, and dung & urine), poultry and poultry products, animal husbandry and hunting, honey bee keeping & silkworm (new additions in 2015-16 rebasing).

The backward series of output for each component has been estimated separately by using data available from the sources as per the following detail:-

- The natural growth and regeneration group has been estimated at constant prices for 2015-16 by using the number of animals available for each animal category by age and sex. A specifically compiled weighted WPI-meat and milk has been used to obtain the value of output at current prices.
- The value of animals sold for slaughtering has been calculated at constant prices by using the number of animals sold for slaughtering for each animal species (buffalo, cattle, goat, sheep, and camel). WPI-meat has been used to obtain the value of output at current prices.
- Livestock products have also been estimated at constant prices separately by using production data supplied by the sources and prices collected in the 2015-16 rebasing. WPI milk has been used as an inflator to obtain output at current prices for the entire group as milk constitutes more than 90% of overall livestock products.
- The output of poultry and poultry products has also been compiled separately at constant prices which have been converted into current prices through WPI-chicken and eggs.
- The value of honey beekeeping has been estimated at current prices by applying growth of the export value of honey which has been deflated through WPI-honey to obtain value at constant prices.
- The output value of silkworms is extrapolated forward by using the production of silk cocoons supplied by Provincial Sericulture Departments but data before 2015-16 was not available. Therefore, the value of output at constant as well as current prices has been compiled by using base year ratios.
- The component of output about animal husbandry and hunting has been compiled at current prices by using data from Government budget documents which has been converted into constant prices through Consumer Price Index (CPI)-general.

The aggregates of output at constant and current prices for the livestock industry have been compiled by summing up the aforementioned components.

The intermediate consumption of livestock comprises green & dry fodders and other inputs e.g. medicines, concentrate & transport, etc. Backward series of fodder components at constant and current prices has been compiled directly by using data on the value of products available from crops. The remaining components of IC of the livestock industry i.e. other inputs, inputs for poultry and products, inputs for honey beekeeping as well as for silkworms have been compiled by using updated base year ratios for 2015-16 rebasing.

Finally, the GVA of the livestock industry at current and constant prices has been compiled by subtracting ICs from their respective outputs. The summary of output, IC and GVA of livestock at current and constant

prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 4, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 4.

2.1.3. Forestry

The forestry industry includes the production of timber as well as products that undergo little processing such as firewood, charcoal, wood chips, and round wood used in unprocessed forms. The value-added contribution of this industry is estimated indirectly from the user side due to the non-availability of data at the establishment level. The output of the industry i.e. uses of timber and firewood by producing industries as well as households at constant prices have been extrapolated backward separately through the production of timber provided by provincial Forest Departments and inter-census growth of rural dwellings respectively. The shares of non-firewood products and intermediate consumption have been estimated through updated base year ratios. It is worth noting that the industry was used to be extrapolated through QIM-wood products in the old base estimates upto 2010-11, which has resulted into variations in growth rates. The WPI-timber has been used to estimate timber at current prices whereas the output of firewood has been inflated by WPI-fuel wood in logs.

The summary of output, IC and GVA of forestry industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 5, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 5.

2.1.4. Fishing

The fishing industry is divided into two categories i.e. marine fishing and freshwater fishing. The output is estimated based on both, quantity as well quality. Accordingly, base year output has been estimated separately for various kinds of species by using their respective prices, updated in the 2015-16 rebasing. The forward and backward extrapolation of the output of the industry at constant prices is made on the bases of fish catch quantities provided by the sources. However, output for the period from 2004-05 to 1999-2000 at constant prices has been estimated through the real growth rates of the same industry in the old base. The WPI-fishing with 2015-16 as the base year has been used to obtain the estimates of output at current prices. IC of the industry at constant and current prices has been estimated by using the input-output ratios of the base year 2015-16. Resultantly, GVA has been obtained by subtracting IC from the output at constant as well as current prices.

The summary of output, IC and GVA of fishing industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 6, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 6.

Table 4: Output, IC and GVA of livestock on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	836295	236643	599652		3411337	997549	2413788	
2000-01	891198	234051	657148	9.59	3521449	972000	2549449	5.62
2001-02	921884	234386	687498	4.62	3647111	965942	2681169	5.17
2002-03	980043	249304	730739	6.29	3789809	989553	2800256	4.44
2003-04	1096325	280104	816221	11.70	3947861	1014849	2933012	4.74
2004-05	1252343	321635	930708	14.03	4094958	1024962	3069995	4.67
2005-06	1395910	347646	1048264	12.63	4260150	1049808	3210341	4.57
2006-07	1553382	390039	1163343	10.98	4386329	1085216	3301113	2.83
2007-08	1783134	455301	1327833	14.14	4501359	1070839	3430520	3.92
2008-09	2175826	591780	1584046	19.30	4644988	1100663	3544326	3.32
2009-10	2581342	668199	1913143	20.78	4766762	1079344	3687418	4.04
2010-11	3129251	756500	2372751	24.02	4926881	1092524	3834356	3.98
2011-12	3889795	872060	3017735	27.18	5104316	1096208	4008108	4.53
2012-13	4427076	965847	3461229	14.70	5234704	1094241	4140463	3.30
2013-14	4828140	1109264	3718876	7.44	5411591	1152492	4259099	2.87
2014-15	5446284	1134770	4311514	15.94	5565191	1136245	4428946	3.99
2015-16	5747855	1213366	4534489	5.17	5747855	1213366	4534489	2.38
2016-17	5964228	1281073	4683155	3.28	5936965	1271579	4665386	2.89
2017-18	6531594	1366304	5165290	10.30	6130204	1297420	4832784	3.59
2018-19	7159067	1476779	5682288	10.01	6343159	1334147	5009012	3.65
2019-20	7996133	1693966	6302167	10.91	6541219	1392558	5148661	2.79
2020-21	9790071	2283681	7506389	19.11	6795383	1524315	5271068	2.38

Note: GVA figures may differ from those on the website of the PBS due to FISIM

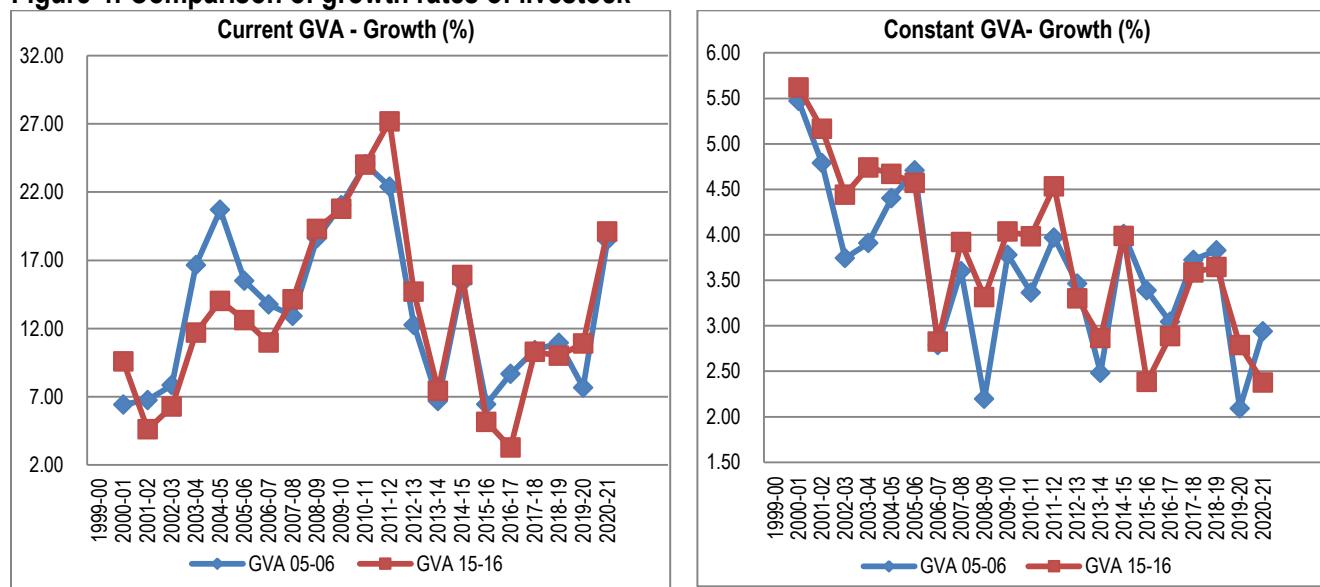
Figure 4: Comparison of growth rates of livestock

Table 5: Output, IC and GVA of forestry on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	63375	15122	48252		279628	66724	212904	
2000-01	71850	17145	54705	13.37	301373	71913	229460	7.78
2001-02	76723	18308	58416	6.78	315823	75361	240462	4.79
2002-03	89188	21282	67906	16.25	355417	84809	270608	12.54
2003-04	112569	26861	85708	26.22	369750	88229	281521	4.03
2004-05	110614	26394	84219	-1.74	313665	74846	238819	-15.17
2005-06	93099	22215	70884	-15.83	257845	61527	196319	-17.80
2006-07	91663	21872	69790	-1.54	231388	55213	176174	-10.26
2007-08	76953	18362	58591	-16.05	191955	45804	146151	-17.04
2008-09	85076	20301	64776	10.56	186376	44473	141904	-2.91
2009-10	105072	25072	80000	23.50	198102	47271	150831	6.29
2010-11	123624	29499	94125	17.66	193529	46179	147349	-2.31
2011-12	152309	36344	115966	23.20	199105	47510	151595	2.88
2012-13	172224	41096	131128	13.08	211486	50464	161021	6.22
2013-14	186262	44445	141817	8.15	214471	51177	163294	1.41
2014-15	177717	42406	135311	-4.59	185687	44308	141379	-13.42
2015-16	212499	50706	161793	19.57	212499	50706	161793	14.44
2016-17	209557	50004	159553	-1.38	206308	49229	157079	-2.91
2017-18	217168	51820	165348	3.63	210924	50330	160594	2.24
2018-19	242452	57853	184599	11.64	226140	53961	172179	7.21
2019-20	259893	62036	197857	7.18	233728	55772	177956	3.36
2020-21	310269	74036	236233	19.40	241534	57634	183900	3.34

Note: GVA figures may differ from those on the website of the PBS due to FISIM

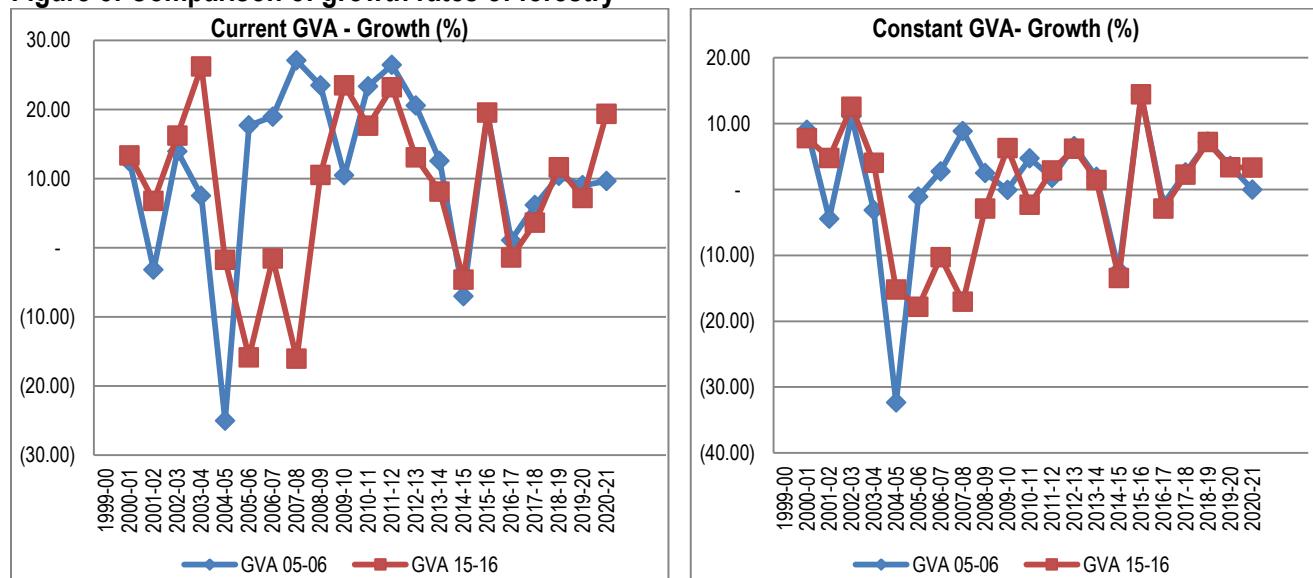
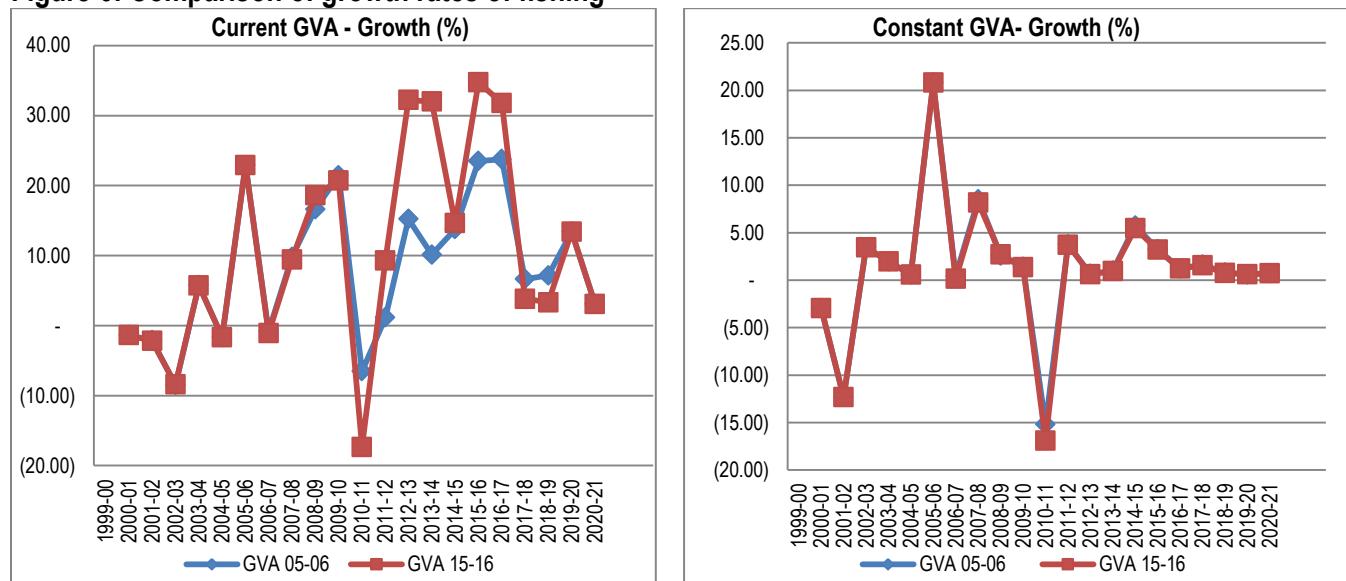
Figure 5: Comparison of growth rates of forestry

Table 6: Output, IC and GVA of fishing on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	41057	13795	27262		149299	50164	99134	
2000-01	40496	13607	26889	-1.37	144888	48682	96205	-2.95
2001-02	39607	13308	26299	-2.20	127027	42681	84346	-12.33
2002-03	36282	12191	24091	-8.40	131408	44153	87255	3.45
2003-04	38369	12892	25477	5.75	134017	45030	88988	1.99
2004-05	37732	12678	25054	-1.66	134805	45295	89511	0.59
2005-06	45481	14684	30797	22.92	159696	51559	108137	20.81
2006-07	45070	14609	30461	-1.09	160220	51932	108288	0.14
2007-08	49432	16095	33337	9.44	173689	56553	117136	8.17
2008-09	58585	19042	39543	18.62	178232	57930	120302	2.70
2009-10	70729	22996	47733	20.71	180708	58754	121955	1.37
2010-11	59250	19795	39455	-17.34	152197	50849	101348	-16.90
2011-12	64776	21651	43125	9.30	157914	52782	105132	3.73
2012-13	85667	28640	57027	32.24	158937	53136	105801	0.64
2013-14	113106	37827	75279	32.01	160480	53671	106809	0.95
2014-15	129886	43593	86293	14.63	169564	56910	112654	5.47
2015-16	175047	58781	116266	34.73	175047	58781	116266	3.21
2016-17	230724	77494	153230	31.79	177194	59515	117679	1.22
2017-18	239663	80561	159102	3.83	180036	60518	119518	1.56
2018-19	247677	83288	164389	3.32	181462	61021	120441	0.77
2019-20	280874	94424	186450	13.42	182552	61370	121182	0.61
2020-21	289538	97344	192194	3.08	183892	61826	122066	0.73

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 6: Comparison of growth rates of fishing

Summary Results: Agriculture, forestry and fishing

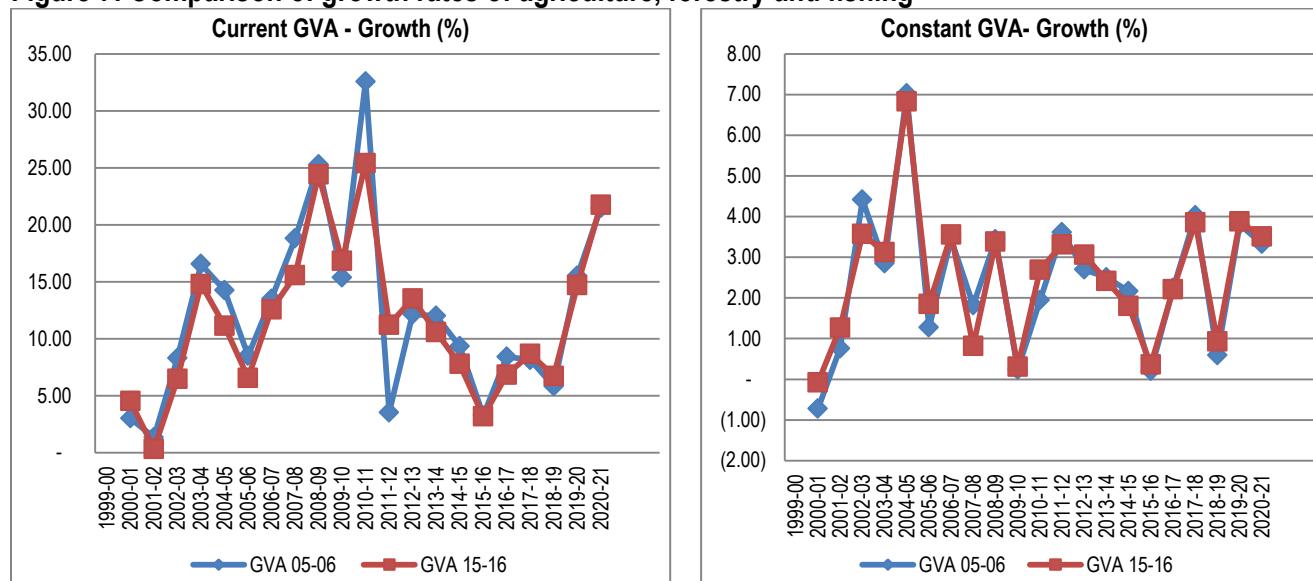
Table 7: Output, IC and GVA of agriculture, forestry and fishing on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	1847784	536853	1310931		7165601	2138698	5026902	
2000-01	1929144	558862	1370282	4.53	7122970	2099942	5023028	-0.08
2001-02	1929882	555248	1374634	0.32	7173883	2087276	5086606	1.27
2002-03	2073007	609592	1463415	6.46	7390697	2122278	5268418	3.57
2003-04	2392517	712742	1679775	14.78	7618585	2185719	5432866	3.12
2004-05	2645367	778564	1866804	11.13	8150936	2347199	5803737	6.83
2005-06	2837312	848069	1989243	6.56	8246609	2335564	5911045	1.85
2006-07	3152885	913685	2239200	12.57	8490474	2369310	6121165	3.55
2007-08	3651112	1063563	2587549	15.56	8482724	2311576	6171148	0.82
2008-09	4597283	1378126	3219157	24.41	8731761	2351876	6379885	3.38
2009-10	5438980	1678018	3760961	16.83	8824159	2424704	6399455	0.31
2010-11	6757109	2040667	4716442	25.41	8907745	2336002	6571743	2.69
2011-12	7487726	2241786	5245939	11.23	9182679	2393031	6789647	3.32
2012-13	8291842	2336930	5954912	13.51	9359734	2362462	6997271	3.06
2013-14	9230296	2645466	6584830	10.58	9639904	2473532	7166372	2.42
2014-15	9678578	2581810	7096768	7.77	9816529	2521252	7295278	1.80
2015-16	9778515	2456934	7321580	3.17	9778515	2456934	7321580	0.36
2016-17	10485084	2662902	7822182	6.84	10163938	2680414	7483524	2.21
2017-18	11356087	2857052	8499035	8.65	10497532	2725296	7772236	3.86
2018-19	12219804	3149252	9070552	6.72	10519944	2675721	7844223	0.93
2019-20	13804298	3401161	10403137	14.69	10841817	2693293	8148524	3.88
2020-21	16782443	4117461	12664982	21.74	11306469	2872237	8434232	3.51

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 7: Comparison of growth rates of agriculture, forestry and fishing



2.2. Industrial Activities

2.2.1. Mining and Quarrying

Mining and Quarrying include the extraction of minerals occurring naturally as solids (coal and ores), liquids (petroleum), or gases (natural gas). The allied services such as drilling services, derrick erection, and supplementary activities aimed at preparing the crude materials for marketing, for example, crushing, grinding, cleaning, drying, sorting, concentrating ores, liquefaction of natural gas, and agglomeration of solid fuels are also included in this industry.

Although, the 2008 SNA recommends the use of establishment-level data in the compilation of value-added estimates this approach is not applied in Pakistan due to data limitation. Accordingly, the value-added contribution of this industry is assessed through the commodity flow approach where actual quantities of various mineral products e.g. natural gas, crude oil, coal, and other minerals provided by provincial mineral departments along with product-wise pithead prices (an equivalent to farm gate or factory gate prices) updated through base year surveys are used. The backward series of output at constant prices has been compiled by using the production of mineral products provided by the mining departments. The product-specific WPIs have been applied to derive output at current prices. However, WPI-fuel (2015-16=100) has been used to inflate the output of other minerals, surface minerals, and crushing of stone and gravel. Further, IC in backward series has been derived by using product-specific base year 2015-16 input-output ratios separately at constant and current prices. The gross value added has been derived by subtracting IC from the output at constant and current prices separately.

The summary of output, IC and GVA of mining and quarrying industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 8, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 8.

2.2.2. Manufacturing

In Pakistan, manufacturing activity is captured under three distinct components i.e. i) Large Scale Manufacturing, ii) Small Scale Manufacturing, and iii) Slaughtering. The estimation methodology for the backward series of these components is given below:-

i) Large-Scale

Large Scale Manufacturing (LSM) covers the formal part of the manufacturing industry and is comprised of establishments having 10 or more employees. The base year value added is estimated through the Census of Manufacturing Industries (CMI). However, CMI results are adjusted for the processing of meat and trade margins which are compiled separately through the commodity flow approach under slaughtering and wholesale and retail trade industries respectively. The CMI results are extrapolated forward at constant prices through the Quantum Index of Large-Scale Manufacturing (QIM). The latest reference/base year of QIM is 2015-16. The backward series of output and IC of LSM has been compiled through the QIM-based real growth rates of the same industry in the old base. Both the output and IC have been converted into current prices by applying the specifically compiled weighted WPI (2015-16=100) comprising products relating to large-scale manufacturing.

The summary of output, IC and GVA of large scale manufacturing industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 9, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 9.

Table 8: Output, IC and GVA of mining and quarrying on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	121426	11508	109918		433279	45359	387920	
2000-01	147341	13910	133431	21.39	459642	48117	411525	6.09
2001-02	166463	15395	151068	13.22	489712	50730	438982	6.67
2002-03	194860	17793	177066	17.21	535987	53605	482382	9.89
2003-04	236600	19777	216823	22.45	641249	58112	583137	20.89
2004-05	243280	26009	217271	0.21	586674	63862	522811	-10.35
2005-06	323629	36895	286733	31.97	619045	70732	548313	4.88
2006-07	377817	44610	333207	16.21	654713	76208	578504	5.51
2007-08	435181	57749	377432	13.27	684446	83808	600637	3.83
2008-09	532793	68968	463825	22.89	678237	83221	595016	-0.94
2009-10	640820	87959	552862	19.20	695667	86625	609042	2.36
2010-11	622271	71033	551238	-0.29	666410	82052	584358	-4.05
2011-12	812307	93088	719220	30.47	703522	86876	616647	5.53
2012-13	869634	106985	762648	6.04	717781	91605	626175	1.55
2013-14	949576	126111	823465	7.97	725701	92856	632845	1.07
2014-15	920763	129386	791377	-3.90	754666	96621	658045	3.98
2015-16	802798	103602	699196	-11.65	802797	103602	699195	6.25
2016-17	828937	113637	715300	2.30	802896	109074	693822	-0.77
2017-18	1012861	156610	856251	19.71	869945	127532	742413	7.00
2018-19	1389531	218563	1170968	36.76	879429	131931	747498	0.68
2019-20	1455799	207037	1248762	6.64	817348	122135	695213	-6.99
2020-21	1501543	223499	1278044	2.34	838623	131599	707024	1.70

Note: GVA figures may differ from those on the website of the PBS due to FISIM

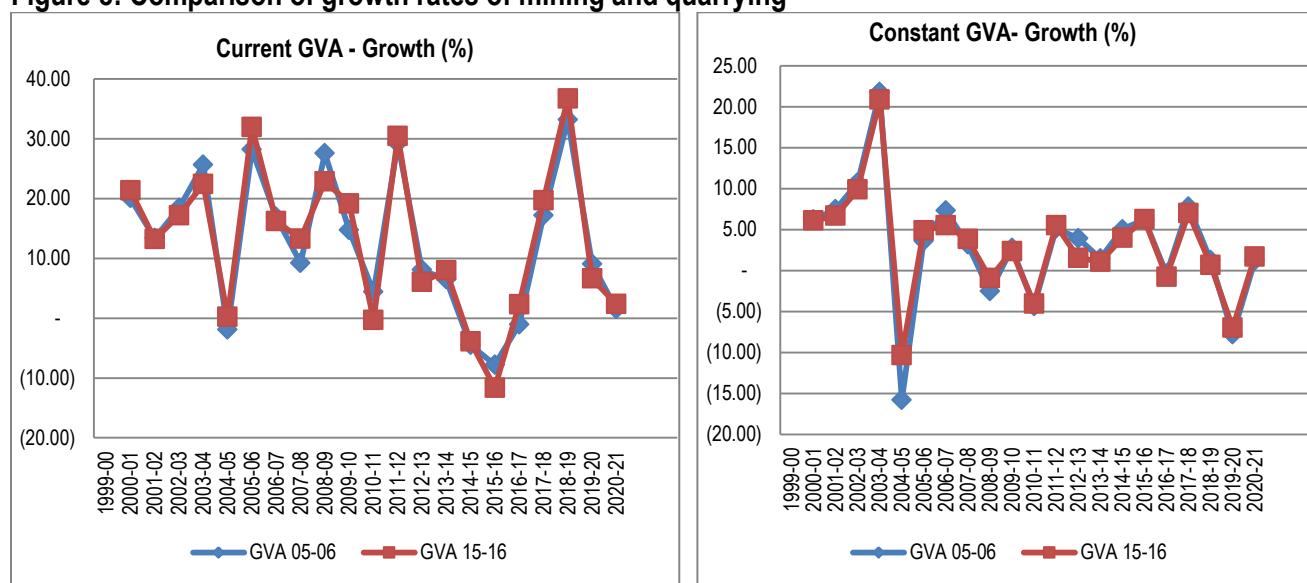
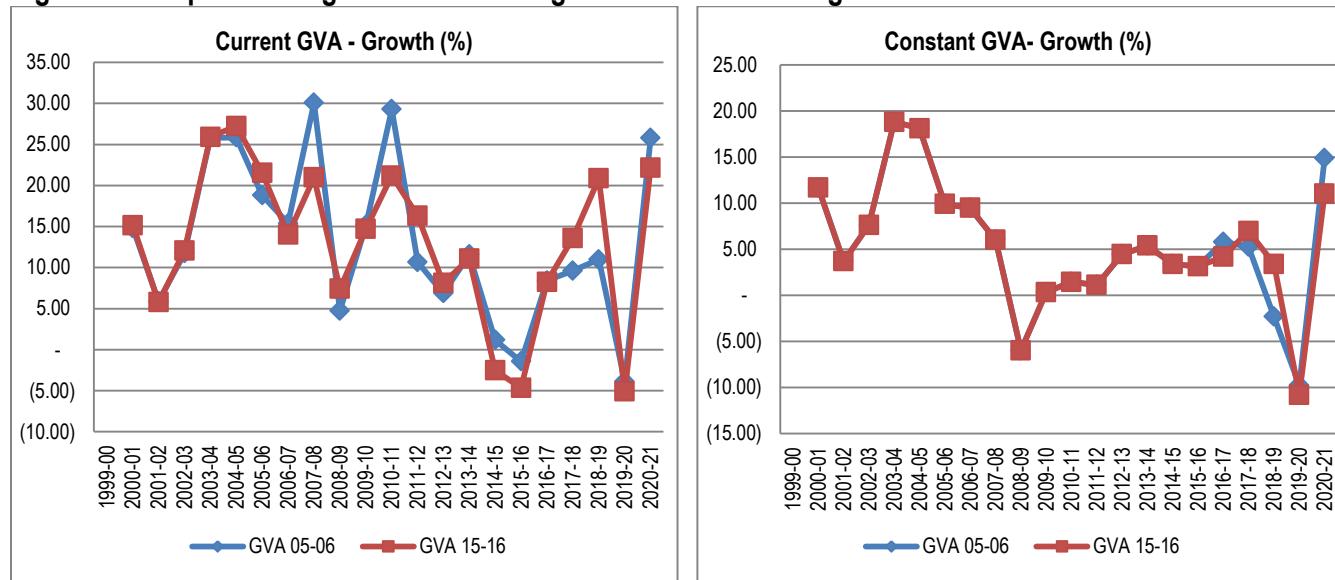
Figure 8: Comparison of growth rates of mining and quarrying

Table 9: Output, IC and GVA of large scale manufacturing on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	1545317	1137403	407914		4328620	3186003	1142617	
2000-01	1779470	1309747	469723	15.15	4834203	3558129	1276075	11.68
2001-02	1882226	1385379	496847	5.77	5012585	3689423	1323162	3.69
2002-03	2109119	1552379	556740	12.05	5395547	3971295	1424251	7.64
2003-04	2655655	1954647	701008	25.91	6411528	4719090	1692438	18.83
2004-05	3379205	2487203	892002	27.25	7573297	5574189	1999108	18.12
2005-06	4107342	3023135	1084207	21.55	8324568	6127149	2197419	9.92
2006-07	4682154	3446216	1235939	13.99	9114570	6708616	2405954	9.49
2007-08	5664607	4169332	1495275	20.98	9663267	7112474	2550793	6.02
2008-09	6084495	4478383	1606112	7.41	9085404	6687148	2398255	-5.98
2009-10	6979651	5137247	1842404	14.71	9115385	6709216	2406170	0.33
2010-11	8458651	6225838	2232813	21.19	9248470	6807170	2441300	1.46
2011-12	9837424	7240660	2596765	16.30	9352053	6883411	2468642	1.12
2012-13	10636655	7828919	2807736	8.12	9769154	7190411	2578744	4.46
2013-14	11816480	8697308	3119172	11.09	10296689	7578693	2717996	5.40
2014-15	11516618	8476600	3040018	-2.54	10646776	7836369	2810408	3.40
2015-16	10981085	8082431	2898654	-4.65	10981085	8082431	2898654	3.14
2016-17	11887389	8749499	3137890	8.25	11440082	8420267	3019815	4.18
2017-18	13503538	9939037	3564501	13.60	12238118	9007647	3230471	6.98
2018-19	16321077	12012836	4308241	20.87	12654941	9314442	3340499	3.41
2019-20	15465366	11377207	4088159	-5.11	11258441	8279149	2979292	-10.81
2020-21	18919108	13925070	4994038	22.16	12561891	9254383	3307508	11.02

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 9: Comparison of growth rates of large scale manufacturing

ii) Small-Scale

Small Scale Manufacturing Industries (SSMI) cover all household units and those establishments that are engaged in manufacturing activities but have less than ten employees. The majority of these units are not registered and are part of the informal sector and most of them are difficult to estimate on an annual regular basis. Due to these limitations and the non-availability of any relevant indicator, the forward extrapolation of value added of this industry in the annual estimate is made through fixed growth rates. Accordingly, the backward series of output and IC of small-scale manufacturing has been estimated at constant prices by applying the real growth rates of the same industry in the old base. A specifically compiled WPI (2015-16 =100) comprising products relating to small-scale manufacturing has been used to obtain estimates at current prices.

The summary of output, IC and GVA of small scale manufacturing industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 10, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 10.

iii) Slaughtering

Slaughtering activity in Pakistan is carried out both in formal (large-scale manufacturing) and informal (small-scale by butchers) as well as services rendered by slaughterhouses to butchers. Although the formal part is covered in the Census of Manufacturing Industries (CMIs), no separate and direct assessment is made for the informal part, which is supposed to be the leading component. Hence, the only viable option to estimate the GDP contribution of the industry is through a commodity flow approach under which the annual data about slaughtered animals is provided by the Ministry of National Food Security & Research (M/O NFS&R). To avoid double counting, the contribution of slaughtering activity captured through CMIs is deducted from the results of the LSM.

The output of slaughtering in backward series, which consists of meat (mutton, beef, and poultry), edible offal, and other products (blood, bones, horns, etc.), has been estimated at constant prices by using the historic data on production of meat and meat products provided by M/O NFS&R. IC has also been estimated at constant prices directly by using input data and updated input-output ratios of the new base year 2015-16. Both output and IC have been converted into current prices through a combined WPI-beef, mutton, and chicken.

The summary of output, IC and GVA of slaughtering industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 11, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 11.

Table 10: Output, IC and GVA of small scale manufacturing on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	89852	40122	49730		265676	118634	147042	
2000-01	100313	44793	55520	11.64	285628	127543	158085	7.51
2001-02	107877	48171	59706	7.54	307079	137121	169957	7.51
2002-03	116474	52009	64464	7.97	330140	147419	182721	7.51
2003-04	132923	59355	73568	14.12	354934	158490	196444	7.51
2004-05	150499	67203	83296	13.22	381589	170393	211196	7.51
2005-06	173252	77363	95889	15.12	414777	185212	229564	8.70
2006-07	195178	87154	108024	12.66	448788	200400	248389	8.20
2007-08	227207	101456	125751	16.41	485589	216832	268757	8.20
2008-09	284666	127113	157552	25.29	525407	234613	290795	8.20
2009-10	357637	159698	197940	25.63	568491	253851	314640	8.20
2010-11	458501	204737	253764	28.20	615107	274667	340440	8.20
2011-12	521987	233086	288902	13.85	665546	297189	368356	8.20
2012-13	609870	272328	337542	16.84	720120	321559	398561	8.20
2013-14	716914	320127	396787	17.55	779170	347927	431243	8.20
2014-15	814567	363732	450834	13.62	843062	376457	466605	8.20
2015-16	912193	407326	504867	11.99	912193	407326	504867	8.20
2016-17	1058289	472563	585726	16.02	993140	443472	549668	8.87
2017-18	1165175	520292	644883	10.10	1081269	482824	598445	8.87
2018-19	1409602	629437	780166	20.98	1177220	525670	651550	8.87
2019-20	1554304	696555	857749	9.94	1187773	533555	654218	0.41
2020-21	1899327	848116	1051211	22.55	1300909	580901	720008	10.06

Note: GVA figures may differ from those on the website of the PBS due to FISIM

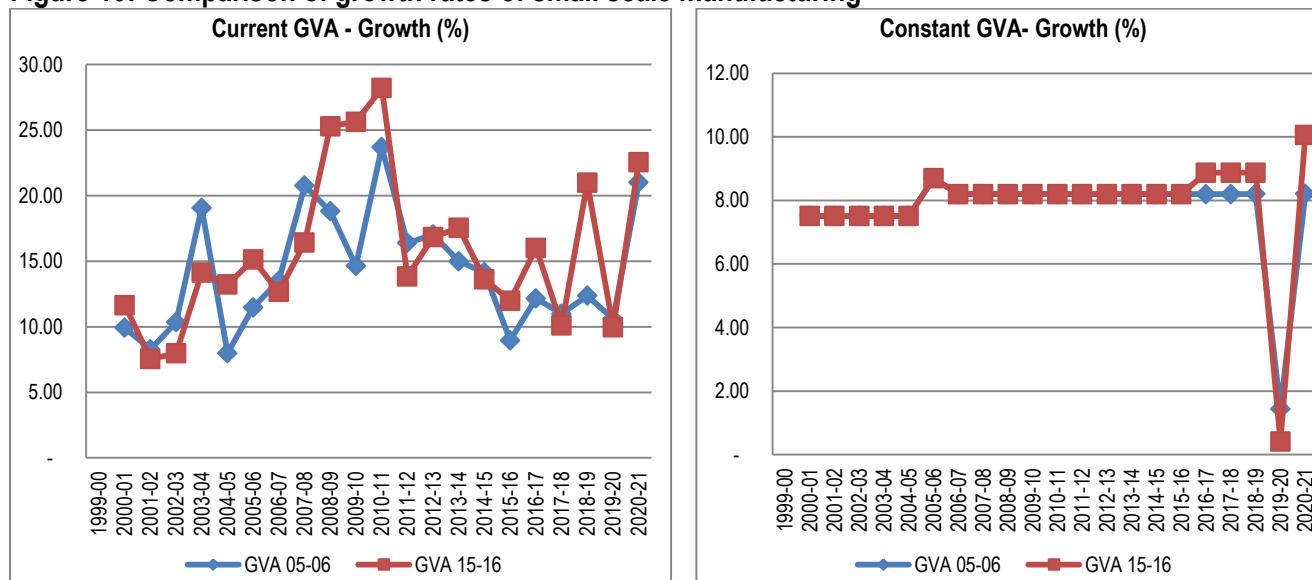
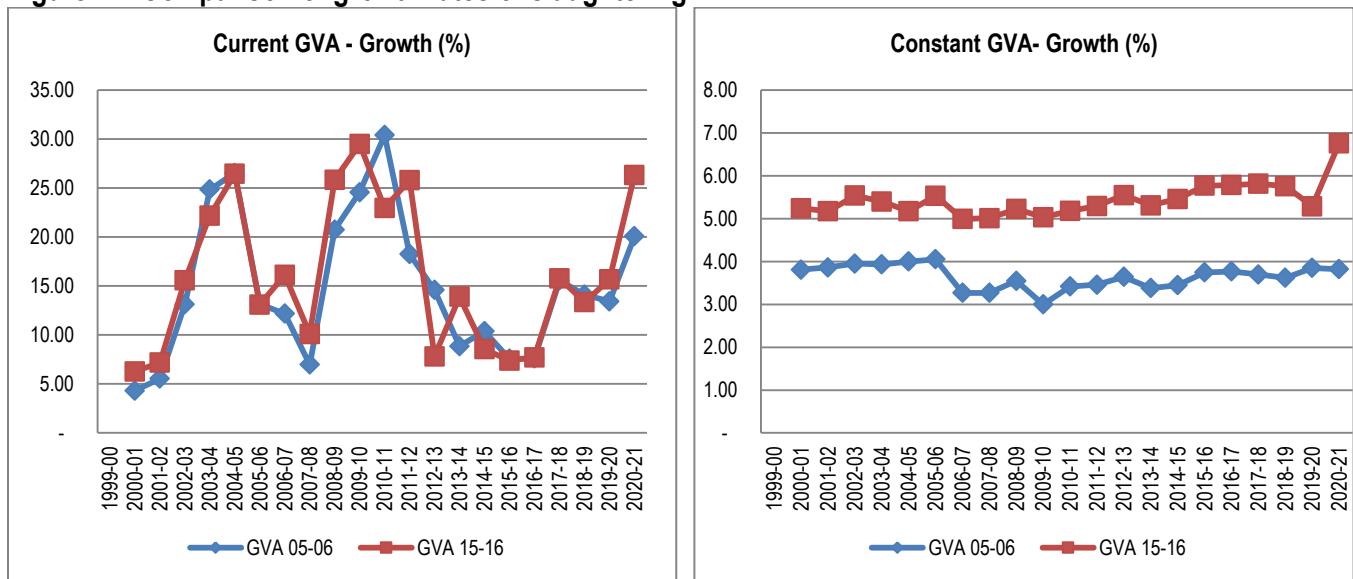
Figure 10: Comparison of growth rates of small scale manufacturing

Table 11: Output, IC and GVA of slaughtering on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	183257	151374	31883		955916	807803	148112	
2000-01	190955	157068	33887	6.29	987539	831660	155879	5.24
2001-02	201214	164892	36322	7.19	1020355	856411	163945	5.17
2002-03	227261	185275	41986	15.59	1055137	882107	173030	5.54
2003-04	283454	232146	51308	22.20	1091169	908794	182375	5.40
2004-05	357353	292468	64884	26.46	1128336	936523	191813	5.18
2005-06	402633	329238	73395	13.12	1167788	965358	202430	5.53
2006-07	454608	369369	85239	16.14	1207891	995350	212541	5.00
2007-08	489566	395718	93848	10.10	1249902	1026706	223197	5.01
2008-09	594507	476390	118117	25.86	1294275	1059417	234858	5.22
2009-10	751239	598287	152952	29.49	1340259	1093572	246687	5.04
2010-11	946597	758489	188108	22.99	1388600	1129132	259469	5.18
2011-12	1190544	953892	236652	25.81	1439423	1166207	273215	5.30
2012-13	1294487	1039352	255135	7.81	1493280	1204893	288386	5.55
2013-14	1422887	1132262	290624	13.91	1547961	1244255	303706	5.31
2014-15	1561131	1245665	315467	8.55	1606779	1286489	320290	5.46
2015-16	1669457	1330681	338776	7.39	1669457	1330681	338776	5.77
2016-17	1790468	1425519	364949	7.73	1735319	1376935	358384	5.79
2017-18	2010042	1587445	422597	15.80	1804718	1425485	379233	5.82
2018-19	2305250	1826232	479018	13.35	1877563	1476491	401072	5.76
2019-20	2646602	2092412	554190	15.69	1952401	1530120	422281	5.29
2020-21	3239822	2539588	700234	26.35	2037334	1586495	450839	6.76

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 11: Comparison of growth rates of slaughtering

2.2.3. Electricity, Gas, and Water Supply

This industry is comprised of three components i.e. electricity, gas, and water supply. The methodology of the compilation of backward series of these components is discussed below:

i) Electricity

In 2015-16 rebasing, the value of output and IC of private hydropower generation has been added which was not part of the electricity industry in old base estimates. These power plants started generating and selling electricity to the national grid in 2000-01. However, their historic financial data from 2000-01 to 2014-15, required to estimate output and IC, for these plants were not available. Therefore, per unit value of output and IC about hydropower generated by Water & Power Development Authority (WAPDA) has been used to estimate output and IC for private hydropower generation. For the remaining components, historic data on output and IC, available in records of national accounts, has been used for the estimation of backward series.

The electricity sector has witnessed a significant methodology change during the 2015-16 rebasing. Previously, the GVA of the electricity sector was used to be derived as the difference between output and IC at the current market price, which was then deflated by using the CPI deflator to arrive at GVA at a constant price. The same procedure is adopted in 2015-16 rebasing to estimate GVA at current prices. However, the methodology for estimating the constant GVA has been changed in 2015-16 rebasing on the recommendations of national accounts experts of the World Bank. Under the revised methodology, output (without subsidy) and subsidy are deflated separately by using CPI-electricity as the deflator. The deflated figures of subsidies are then added to the deflated output to arrive at the constant output of the industry. Under the 2015-16 rebasing, IC is extrapolated forward based on the growth of constant output without subsidies i.e. an Implicit Volume Index for Output (IVO) due to the non-availability of product-specific output and input deflators. However, in backward series the old base figures of IC at current prices have been deflated using relevant deflators to arrive at IC at constant prices. Resultantly, GVA at constant prices has been estimated by subtracting IC from the output at constant prices.

ii) Gas Distribution

The gas distribution industry in Pakistan includes Sui Northern Gas Pipeline (SNGPL), Sui Southern Gas Company (SSGC), and Mari Gas Company. The forward and backward estimation of output and IC of the industry is made at current prices by using the annual regular data provided by the companies or extracted from their respective annual/quarterly reports. WPI-gas (2015-16=100) has been used to obtain estimates at constant prices.

iii) Water Supply

The estimates of water supply were not separately available in the 2005-06 base series of the GDP, as it was supposed to be included in the General Government Services. In 2015-16 rebasing, the contribution of this industry in the private sector has been estimated separately from the user side as the data needed for direct valuation through the production approach is not available. The backward series of output and IC of the industry has been estimated at constant prices based on inter census growth rate of urban dwellings. Both output and IC have been converted into the current price by using the CPI-water supply as the deflator.

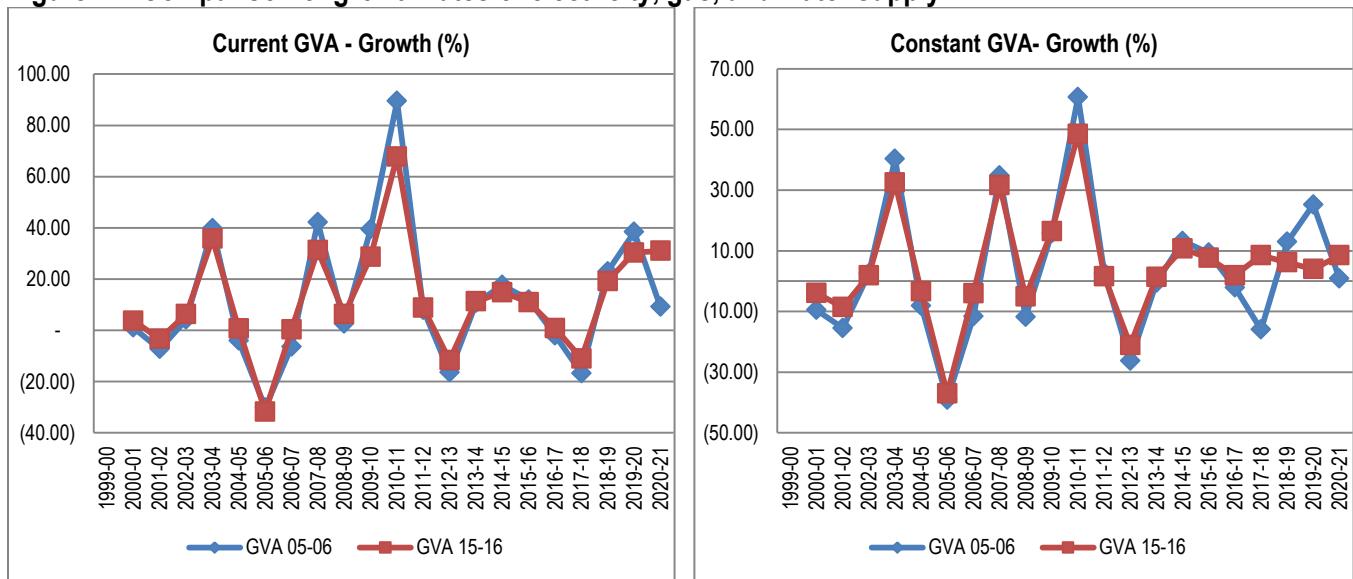
The summary of output, IC and GVA of electricity, gas and water supply industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 12, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 12.

Table 12: Output, IC and GVA of electricity, gas and water on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	730493	560523	169970		2075137	1594239	480898	
2000-01	751243	574979	176264	3.70	1986321	1524429	461892	-3.95
2001-02	702328	531930	170398	-3.33	1760337	1338078	422258	-8.58
2002-03	742488	561377	181111	6.29	1781583	1351166	430416	1.93
2003-04	1036778	790862	245917	35.78	2401674	1831543	570131	32.46
2004-05	1011392	763853	247539	0.66	2250776	1700200	550576	-3.43
2005-06	737758	568757	169001	-31.73	1569960	1223379	346581	-37.05
2006-07	843776	674127	169649	0.38	1757519	1424684	332835	-3.97
2007-08	1074156	851462	222695	31.27	2255957	1817857	438100	31.63
2008-09	1297877	1061205	236672	6.28	2398516	1982793	415723	-5.11
2009-10	2265955	1961505	304450	28.64	3763158	3279214	483944	16.41
2010-11	2790698	2279902	510796	67.78	3961834	3242872	718962	48.56
2011-12	3429077	2873494	555583	8.77	4564910	3834856	730054	1.54
2012-13	3383722	2892950	490773	-11.67	4015912	3439605	576307	-21.06
2013-14	3819243	3273136	546107	11.28	4093873	3509894	583979	1.33
2014-15	2684784	2057505	627280	14.86	2764770	2118193	646577	10.72
2015-16	2451257	1755009	696248	10.99	2451257	1755009	696248	7.68
2016-17	2785993	2084097	701896	0.81	2768563	2058953	709610	1.92
2017-18	3248629	2623818	624811	-10.98	3194222	2424103	770119	8.53
2018-19	4088387	3343643	744744	19.20	3456394	2638773	817621	6.17
2019-20	4296768	3325892	970876	30.36	3353102	2503083	850019	3.96
2020-21	4686101	3414087	1272014	31.02	3357741	2435403	922338	8.51

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 12: Comparison of growth rates of electricity, gas, and water supply

2.2.3. Construction

The construction activity covers land improvement and construction of all types of buildings, roads, bridges, railway lines, utility lines (telecommunication lines, power lines, pipelines) waterways, and dams as well as repairs and maintenance of such infrastructure. In 2005-06 base estimates, the construction activity was used to be developed by a product flow approach based on the expenditures incurred by the establishments undertaking the construction or the contractors or the sub-contractors purchasing the construction material. However, in 2015-16 rebasing, by overcoming the previous rebasing shortcomings, the construction industry has been estimated separately for formal (establishments) and informal (private buildings by households) parts. The output and IC at current prices are extrapolated forward by using aggregate growth of construction expenditures at current prices reported by producing industries. For the estimation of backward series, a long-run series of the data on expenditures on construction activities obtained from regular GFCF surveys reported by various industries has been developed. This harmonized series of construction expenditures have been used to compile backward series of output and IC of the construction industry at current prices. WPI-building material has been used to derive the estimates at constant prices for 2015-16.

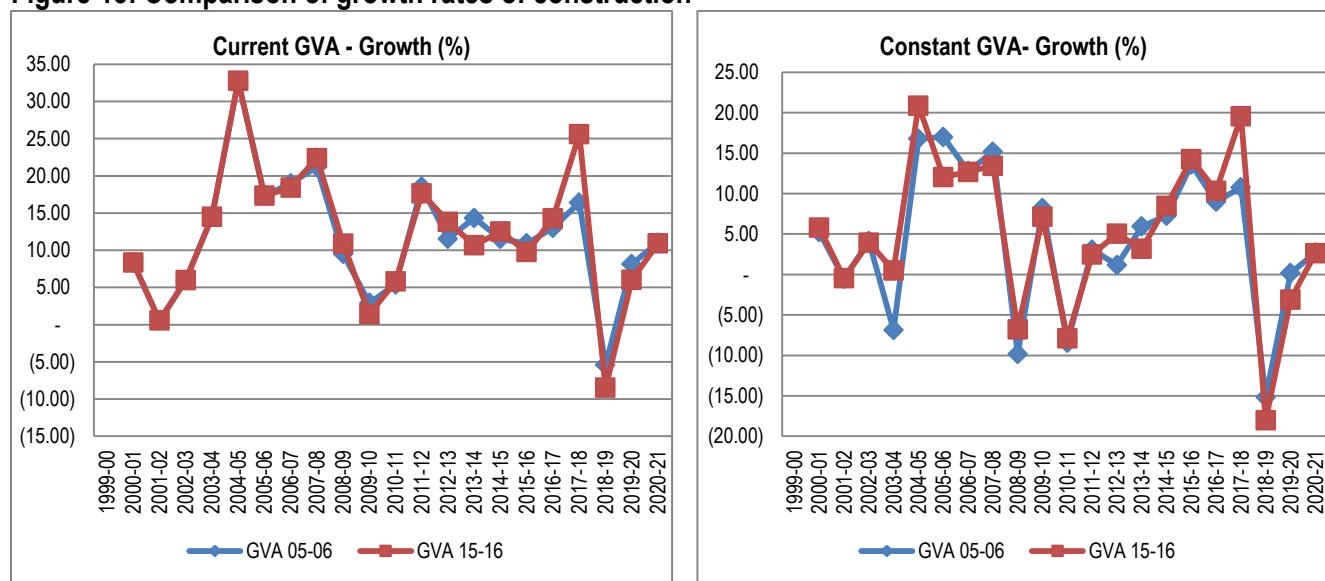
The summary of output, IC and GVA of construction industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 13, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 13.

Table 13: Output, IC and GVA of construction on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	253102	113547	139556		682352	306116	376235	
2000-01	274200	123011	151188	8.34	721875	323847	398027	5.79
2001-02	275726	123696	152030	0.56	718606	322381	396225	-0.45
2002-03	292186	131080	161106	5.97	746880	335065	411815	3.93
2003-04	334522	150073	184449	14.49	750584	336727	413857	0.50
2004-05	444109	199236	244873	32.76	907238	407005	500233	20.87
2005-06	521014	233737	287277	17.32	1016568	456052	560515	12.05
2006-07	616948	276775	340173	18.41	1145495	513891	631603	12.68
2007-08	755011	338713	416298	22.38	1299408	582940	716468	13.44
2008-09	837204	375586	461618	10.89	1211177	543358	667819	-6.79
2009-10	849077	380913	468165	1.42	1297389	582034	715355	7.12
2010-11	898580	403121	495459	5.83	1194975	536089	658886	-7.89
2011-12	1057149	474258	582891	17.65	1224512	549340	675172	2.47
2012-13	1203170	539766	663404	13.81	1285981	576917	709065	5.02
2013-14	1331363	597276	734087	10.65	1326606	595142	731465	3.16
2014-15	1498136	672093	826042	12.53	1439173	645641	793531	8.49
2015-16	1644262	737648	906614	9.75	1644262	737648	906614	14.25
2016-17	1879393	843133	1036260	14.30	1814086	813835	1000251	10.33
2017-18	2360667	1059042	1301625	25.61	2168734	972937	1195797	19.55
2018-19	2160540	969261	1191279	-8.48	1778223	797746	980477	-18.01
2019-20	2290592	1027605	1262987	6.02	1723027	772984	950043	-3.10
2020-21	2541398	1140121	1401277	10.95	1767929	793128	974801	2.61

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 13: Comparison of growth rates of construction

Summary Results: Industrial Activities

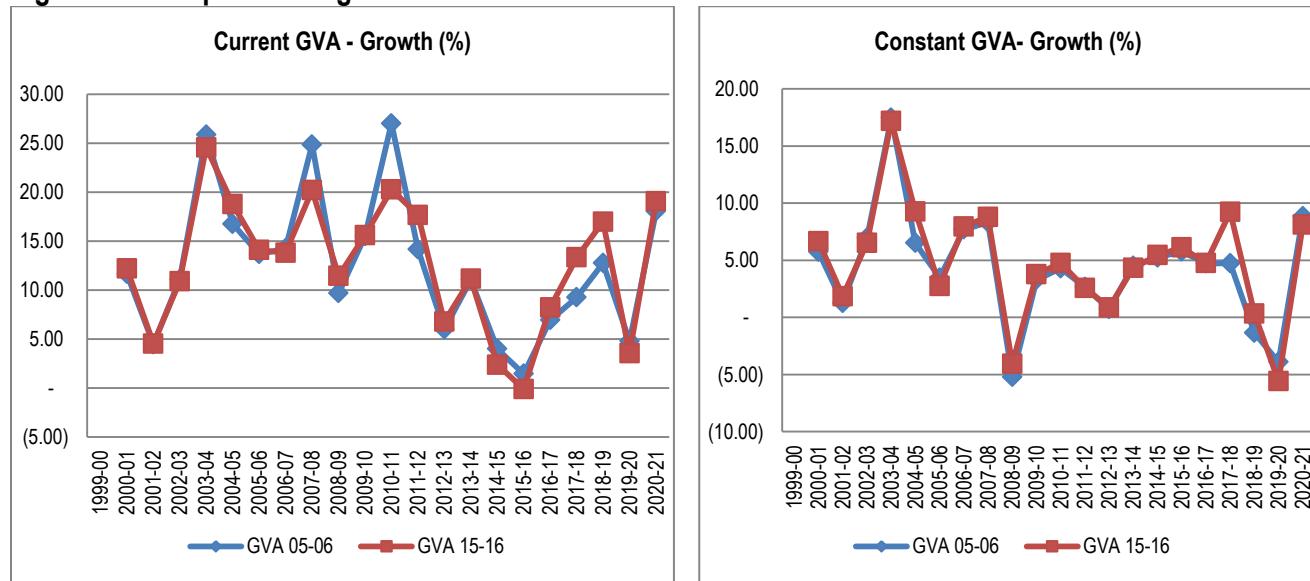
Table 14: Output, IC and GVA of industrial activities on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	2923447	2014476	908971		8740980	6058155	2682825	
2000-01	3243521	2223508	1020013	12.22	9275208	6413724	2861484	6.66
2001-02	3335834	2269462	1066371	4.54	9308674	6394145	2914529	1.85
2002-03	3682387	2499914	1182473	10.89	9845273	6740658	3104616	6.52
2003-04	4679933	3206860	1473072	24.58	11651138	8012756	3638382	17.19
2004-05	5585838	3835973	1749866	18.79	12827910	8852172	3975738	9.27
2005-06	6265627	4269125	1996502	14.09	13112705	9027883	4084823	2.74
2006-07	7170482	4898251	2272231	13.81	14328975	9919148	4409827	7.96
2007-08	8645729	5914430	2731299	20.20	15638569	10840617	4797952	8.80
2008-09	9631540	6587645	3043895	11.44	15193017	10590550	4602466	-4.07
2009-10	11844380	8325608	3518772	15.60	16780349	12004512	4775837	3.77
2010-11	14175297	9943119	4232178	20.27	17075397	12071982	5003415	4.77
2011-12	16848489	11868476	4980012	17.67	17949966	12817880	5132086	2.57
2012-13	17997539	12680301	5317238	6.77	18002229	12824990	5177239	0.88
2013-14	20056463	14146219	5910244	11.15	18770000	13368766	5401234	4.33
2014-15	18995999	12944981	6051018	2.38	18055225	12359769	5695456	5.45
2015-16	18461052	12416697	6044355	-0.11	18461051	12416697	6044354	6.13
2016-17	20230469	13688448	6542021	8.23	19554086	13222536	6331550	4.75
2017-18	23300912	15886244	7414668	13.34	21357006	14440528	6916478	9.24
2018-19	27674387	18999972	8674416	16.99	21823770	14885053	6938717	0.32
2019-20	27709431	18726708	8982723	3.55	20292092	13741025	6551067	-5.59
2020-21	32787299	22090481	10696818	19.08	21864427	14781909	7082518	8.11

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 14: Comparison of growth rates of industrial activities



2.3. Services

2.3.1. Wholesale and Retail Trade

The wholesale and retail trade (WRT) industry is comprised of wholesale & retail trade, repair of motor vehicles & motorcycles, and wholesale trade & retail trade except for motor vehicles and motorcycles. The output of this industry is compiled through the commodity flow approach where ratios for trade margins are applied to a marketable supply of products produced in agriculture, forestry, fishing, manufacturing (large-scale, small-scale & slaughtering) as well as imported consumer, capital, and intermediate goods. The product-wise ratios for marketable supply, trade margins, and gross value added were updated in the 2015-16 rebasing of national accounts. These updated ratios and values of products produced/imported and derived under the new base estimates have been used to compile backward series of trade output and trade value-added separately at constant and current prices. The backward series of IC of the WRT industry at constant and current prices have been estimated through the residual approach.

The summary of output, IC and GVA of wholesale and retail trade industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 15, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 15.

2.3.2. Transportation and Storage

Under 2015-16 rebasing, the transportation and storage industry includes land (railways, road transport, pipelines) water, air transport. The associated services such as terminal and parking, cargo handling, warehousing, and storage, renting of transportation equipment with operators, and postal and courier services are also included in this industry.

i) Transport via Railways

For the estimation of the backward series of output and IC, annual regular data obtained from sources at current prices has been used. The constant output of railways has been compiled by using a specifically compiled unit value index comprising passengers and tonnage per kilometer as the deflator. WPI-diesel has been used as a deflator to derive IC at constant prices.

ii) Road transport

For compilation purposes, the road transport activity is divided into mechanized road transport (AC, Non-AC buses, trucks, taxis, etc.) and non-mechanized road transport such as hand carts, horse carts, donkey carts, and camel carts, etc. Because of the informal nature of the industry and the non-availability of data at the establishment level, the value-added contributions of both types of road transport are estimated indirectly. For mechanized road transport, the value-added contributions are estimated by using the number of vehicles of various kinds on road obtained from National Transport Research Centre (NTRC) and category-wise average per vehicle output and IC estimated through base year study. The non-mechanized road transport activity is also estimated similarly but by using data on hand & horse carts maintained by PBS and extrapolated through growth in animals by type of work provided by the M/o NFS&R. In the backward series, output and IC at constant prices have been estimated separately for mechanized and non-mechanized components by using already available various numbers of vehicles and per vehicle contributions of the new base year. The output and IC of mechanized components at current prices have been derived by using CPI (mechanized) urban and WPI (diesel) respectively. CPI-general has been used as a deflator to obtain both output and IC at current prices for the non-mechanized component.

iii) Transportation via Pipelines

The backward series of output and IC of transportation via pipelines has primarily been estimated at current prices by using annual data provided by the sources such as Asia Petroleum Limited (APL), Pak-Arab Refinery Ltd. (PARCO) (Oil Pipeline), Fauji Oil Terminal and Distribution Company (FOTCO). CPI-general has been used as a deflator to obtain estimates of output and IC at constant prices of 2015-16.

iv) Water Transport

The Water Transport industry comprises Pakistan National Shipping Corporation (PNSC), Karachi Port Trust (KPT), Port Qasim Authority (PQA), Gawadar Port Authority (GPA), Container Terminal Companies, Shipping & Customs Clearing Agents and Goods Forwarding Agencies, International Freight Forwarders, and Boats. The backward series of output and IC of PNSC, KPT, PQA, GPA, and Container Terminal has been compiled by using regular annual data at current prices. A specifically developed unit value index by combining cargo handled at seaports and revenue has been used as a deflator for output whereas WPI-diesel has been used as a deflator for IC to obtain estimates at constant prices.

The output and IC for Shipping and Customs Clearing Agents and International Freight Forwarders have been compiled at current prices by using the growth of trade (import plus exports) excluding petroleum products. A specifically developed unit value index by combining cargo handled at seaports and revenue has been used as a deflator for output whereas IC has been deflated through WPI-diesel. The output and IC of goods forwarders have been estimated at constant prices by applying the growth in the number of trucks which have been converted into current prices through a specifically developed unit value index by combining cargo handled at seaports and revenue and WPI-diesel respectively. Similarly, output and IC of inland and marine boats have also been estimated at constant prices by applying the growth of the number of inland boats and the number of marine boats respectively. The output of both types of boats has been converted into current prices through CPI-general whereas WPI-diesel has been used for the deflation of IC.

v) Air Transport

The Air transport industry comprises domestic airlines, foreign airlines, Sialkot international airport (SIA), Civil Aviation Authority (CAA), travel agents & tour operators. The backward series of output and IC for airlines has been compiled at current prices by using annual available data. The output and IC of travel agents and tour operators have also been estimated at current prices but by applying the growth of output of domestic and international airlines. Both the output and IC have been converted into constant prices by applying a specifically compiled unit value index comprising passengers and tonnage per kilometer.

vi) Postal and Courier Activities

The postal and courier activities include Pakistan Post, franchise post offices, and courier services. The output and IC of Pakistan Post have been estimated at current prices using available annual data which are also used to extrapolate the output and IC of courier activities. For franchise post offices, output and IC in the backward series have been extrapolated at constant prices by using the growth rate of the number of franchise post offices. The output of the industry at constant prices has been derived by using CPI-postal services. However, the IC of Pakistan Post has been deflated by the Implicit Volume Index for output (IVO) whereas the IC of Franchise Post offices and courier companies has been deflated through CPI-postal services and WPI-diesel respectively.

Table 15: Output, IC and GVA of wholesale and retail trade on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	998476	198643	799833		3474739	677406	2797333	
2000-01	1099772	218798	880973	10.14	3645307	711690	2933617	4.87
2001-02	1133418	225369	908049	3.07	3709408	723753	2985656	1.77
2002-03	1242111	247769	994342	9.50	3915949	762942	3153007	5.61
2003-04	1480031	298521	1181510	18.82	4314168	842538	3471630	10.11
2004-05	1852071	369355	1482716	25.49	4884823	958201	3926623	13.11
2005-06	2221171	439434	1781736	20.17	5285050	1032965	4252085	8.29
2006-07	2513539	496766	2016774	13.19	5572444	1096927	4475517	5.25
2007-08	3034356	601095	2433261	20.65	5822172	1147442	4674731	4.45
2008-09	3459791	689746	2770045	13.84	5661734	1123764	4537970	-2.93
2009-10	3962963	793588	3169374	14.42	5726309	1138033	4588276	1.11
2010-11	4828115	971447	3856668	21.69	5817455	1161769	4655686	1.47
2011-12	5558710	1115057	4443653	15.22	5886747	1178780	4707967	1.12
2012-13	6084660	1221049	4863611	9.45	6076577	1219335	4857242	3.17
2013-14	6759986	1361175	5398811	11.00	6349139	1277544	5071595	4.41
2014-15	6813757	1373071	5440687	0.78	6504322	1313143	5191179	2.36
2015-16	6735638	1330756	5404882	-0.66	6735638	1330756	5404882	4.12
2016-17	7388656	1452631	5936025	9.83	7160084	1406575	5753509	6.45
2017-18	8303814	1628651	6675163	12.45	7637710	1496450	6141260	6.74
2018-19	9649911	1898862	7751049	16.12	7910933	1550429	6360504	3.57
2019-20	9791813	1926362	7865451	1.48	7493876	1468844	6025032	-5.27
2020-21	11985732	2362439	9623293	22.35	8294856	1619493	6675363	10.79

Note: GVA figures may differ from those on the website of the PBS due to FISIM

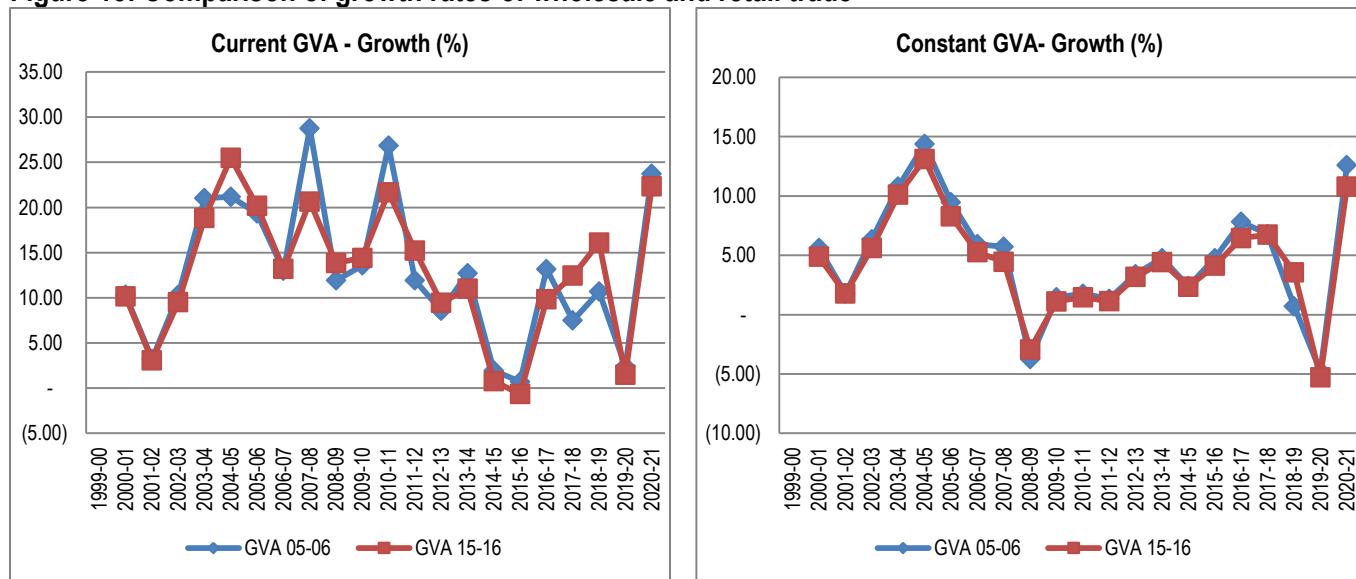
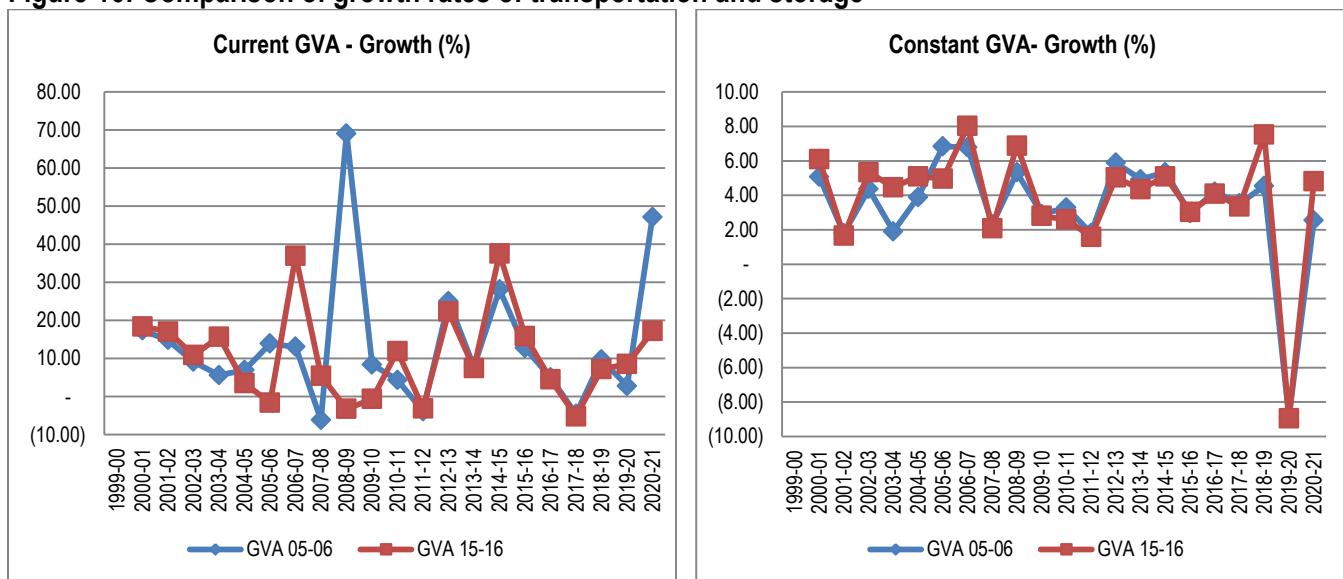
Figure 15: Comparison of growth rates of wholesale and retail trade

Table 16: Output, IC and GVA of transportation and storage on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	898728	292740	605988		2967345	1200301	1767044	
2000-01	1057253	339760	717494	18.40	3153960	1279289	1874671	6.09
2001-02	1195251	355132	840118	17.09	3192839	1287129	1905710	1.66
2002-03	1366322	434805	931518	10.88	3336114	1328607	2007508	5.34
2003-04	1582087	504391	1077697	15.69	3530660	1433472	2097188	4.47
2004-05	1743950	627847	1116103	3.56	3716214	1512017	2204198	5.10
2005-06	1925736	827824	1097912	-1.63	3864397	1550617	2313780	4.97
2006-07	2458361	954754	1503607	36.95	4197339	1697876	2499463	8.03
2007-08	2680140	1093909	1586232	5.50	4290248	1738546	2551702	2.09
2008-09	3099892	1564541	1535350	-3.21	4530810	1803583	2727227	6.88
2009-10	3401424	1875655	1525768	-0.62	4633539	1829837	2803701	2.80
2010-11	3972721	2264805	1707916	11.94	4781778	1905147	2876631	2.60
2011-12	4434483	2779457	1655026	-3.10	4864269	1941879	2922389	1.59
2012-13	5073708	3049285	2024423	22.32	5053633	1984093	3069540	5.04
2013-14	5509470	3333974	2175497	7.46	5260255	2057116	3203139	4.35
2014-15	5777442	2785211	2992231	37.54	5509927	2143605	3366322	5.09
2015-16	5717348	2249166	3468182	15.91	5717348	2249166	3468182	3.03
2016-17	5907926	2282802	3625123	4.53	5985351	2375307	3610044	4.09
2017-18	6198271	2761609	3436662	-5.20	6142085	2411042	3731043	3.35
2018-19	7567065	3881243	3685822	7.25	6564002	2552298	4011704	7.52
2019-20	7622593	3622454	4000140	8.53	5981858	2329546	3652312	-8.96
2020-21	8313046	3625304	4687742	17.19	6307551	2479482	3828069	4.81

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 16: Comparison of growth rates of transportation and storage

vii) Warehousing and Storage

The warehousing and storage industry includes refrigerated storage, bulk liquid or gas storage, storage of goods in foreign trade zones, and other warehouses and storage activities. In the backward series, the output and IC of this industry have been extrapolated at constant prices by using the growth of output and IC of wholesale and retail trade. WPI food and energy have been used as an inflator.

The summary of output, IC and GVA of transportation and storage industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 16, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 16.

2.3.3. Accommodation and Food Services Activities (Hotels & Restaurants)

Accommodation and food service activities also known as hotels and restaurants include the provision of short-stay accommodation for visitors and other travelers and the provision of complete meals and drinks fit for immediate consumption. The GVA of accommodation and food service activities was used to be extrapolated through fixed growth rates i.e. 10% in 1999-2000 rebasing and 4.92% in 2005-06 rebasing due to the non-availability of the relevant indicators. In 2015-16 rebasing too, the output and IC of this industry are extrapolated at constant prices through a fixed growth rate of 4.08% (an inter-census growth rate of urban-dwelling for 2 and more rooms). For the backward series, output and IC at constant prices have been derived through the real growth rates of the old base. The output of the industry has been inflated through CPI-restaurants and hotels (urban) whereas weighted CPI-food, energy, and rent (urban) has been used for inflation of intermediate consumption. GVA is the difference between output and IC.

The summary of output, IC and GVA of accommodation and food services activities at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 17, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 17.

2.3.4. Information and Communication

The information and communication industry includes publishing activities, motion picture and sound recording activities, radio and TV broadcasting and programming activities, telecommunication activities, information technology activities, and other information service activities. The backward series of output, IC, and GVA at constant and current prices of these components have been compiled separately. Publishing activities have been estimated at constant prices through the enrolment of students. CPI (Education) and CPI (Energy and rent) with 2015-16 as the base year have been used to obtain estimates at current prices. The output and IC of motion picture and sound recording activities, radio, TV broadcasting, and programming activities have been estimated at current prices by using the growth of output and IC of TV channels (PTV, ATV & PBC) respectively. Output has been deflated by CPI- Recreation whereas IC has been deflated by CPI-Energy and rent for urban areas.

The output and IC of telecommunication activities in backward series have been estimated at current prices by using annual data provided by the source agencies. The output at current prices is compiled from the reports provided by the source agencies. The output of the industry has been deflated by CPI-Communication whereas IC has been deflated by using IVO.

In the 2015-16 rebasing, the output and IC of computer programming & consultancy, and information service activities are extrapolated forward at current prices by using the growth of exports of Information, Communication Technology (IT) and Computer Services. The backward series of output and IC of this

industry has been compiled at current prices by using the combined growth of the computer and information services obtained from BOP data. The requisite data was not available from 1999-2000 to 2001-02, which was estimated through interpolation method. Specifically compiled CPI- Communication with 2015-16 as the base year has been used as the deflator to obtain estimates at current prices.

The summary of output, IC and GVA of information and communication activities at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 18, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 18.

2.3.5. Financial and Insurance Activities

Finance and insurance activities include financial service activities, insurance, reinsurance, and pension funding and activities auxiliary to financial service and insurance activities. This sector constitutes financial corporations providing financial services and is categorized into ***financial intermediaries, financial auxiliaries, and other financial corporations***. The production of financial services is the result of financial intermediation, financial risk management, liquidity transformation, or auxiliary financial activities. The financial intermediation services can be measured directly or indirectly. The financial services directly measured include explicit, implicit, or both types of payments made in the forms of fees, commissions, and brokerage which are paid directly by the clients. The **Financial Intermediation Services Indirectly Measured (FISIM)** is financial intermediation services provided by financial institutions e.g., banks, etc. to the clients which are recorded as "services rendered". The remuneration received against these financial services cannot be measured directly but is included in the financial output as well as GDP. This remuneration is measured indirectly by imputing a service charge on account of the clients of the banks and is termed "FISIM" in SNA 2008. The compilation of FISIM is described in detail in PBS publications for rebasing of national accounts 2005-06 and 2015-16.

The FISIM represents the major share i.e. about 86% of the output of deposit-taking institutions. The backward series of FISIM has been compiled separately for loans and deposits by using data at current prices obtained from the State Bank of Pakistan (SBP). The non-market output of SBP and other institutions has been derived through the cost of production approach i.e. by summing up the compensation of employees, consumption of fixed capital, and IC. The output of insurance companies has been derived directly by using data provided by the sources. The backward series of output and IC of exchange companies has been compiled at current prices by using the growth of workers' remittances. The estimates of mercantile exchange brokers have been derived by using the growth of traded volumes by mercantile exchange brokers. CPI-general has been used to obtain the output and IC at constant prices of 2015-16 for the aforementioned components. Finally, the output and IC of stockbrokers have been compiled at constant prices by using the growth rate of "Number of shares traded" which has been converted into current prices by using all share indexes of the Pakistan Stock Exchange (PSX).

The summary of output, IC and GVA of financial and insurance activities at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 19, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 19.

**Table 17: Output, IC and GVA of accommodation and food services on 2015-16 base year
(Rs. in Million)**

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	77747	51075	26672		301696	152690	149006	
2000-01	88641	58248	30393	13.95	331865	167959	163907	10.00
2001-02	101119	66881	34238	12.65	365052	184754	180297	10.00
2002-03	114122	75967	38155	11.44	401557	203230	198327	10.00
2003-04	129378	85643	43735	14.62	441712	223553	218160	10.00
2004-05	153928	98240	55688	27.33	485884	245908	239976	10.00
2005-06	185569	116206	69362	24.56	534472	270499	263973	10.00
2006-07	217242	131687	85555	23.34	560768	283807	276961	4.92
2007-08	248346	152578	95768	11.94	588358	297771	290587	4.92
2008-09	296986	182017	114969	20.05	617305	312421	304884	4.92
2009-10	354020	212245	141775	23.32	647677	327792	319884	4.92
2010-11	434092	256461	177631	25.29	679542	343920	335623	4.92
2011-12	515909	295059	220850	24.33	712976	360840	352135	4.92
2012-13	593207	326537	266670	20.75	748054	378594	369460	4.92
2013-14	698759	372037	326723	22.52	784858	397221	387638	4.92
2014-15	784359	406220	378139	15.74	823474	416764	406710	4.92
2015-16	863989	437269	426720	12.85	863989	437269	426720	4.92
2016-17	954543	479094	475449	11.42	899240	455110	444130	4.08
2017-18	1057974	518914	539060	13.38	935929	473678	462251	4.08
2018-19	1161631	572624	589007	9.27	974115	493004	481111	4.08
2019-20	1284356	662385	621971	5.60	1013859	513119	500740	4.08
2020-21	1451672	724231	727441	16.96	1055224	534054	521170	4.08

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 17: Comparison of growth rates of accommodation and food services activities

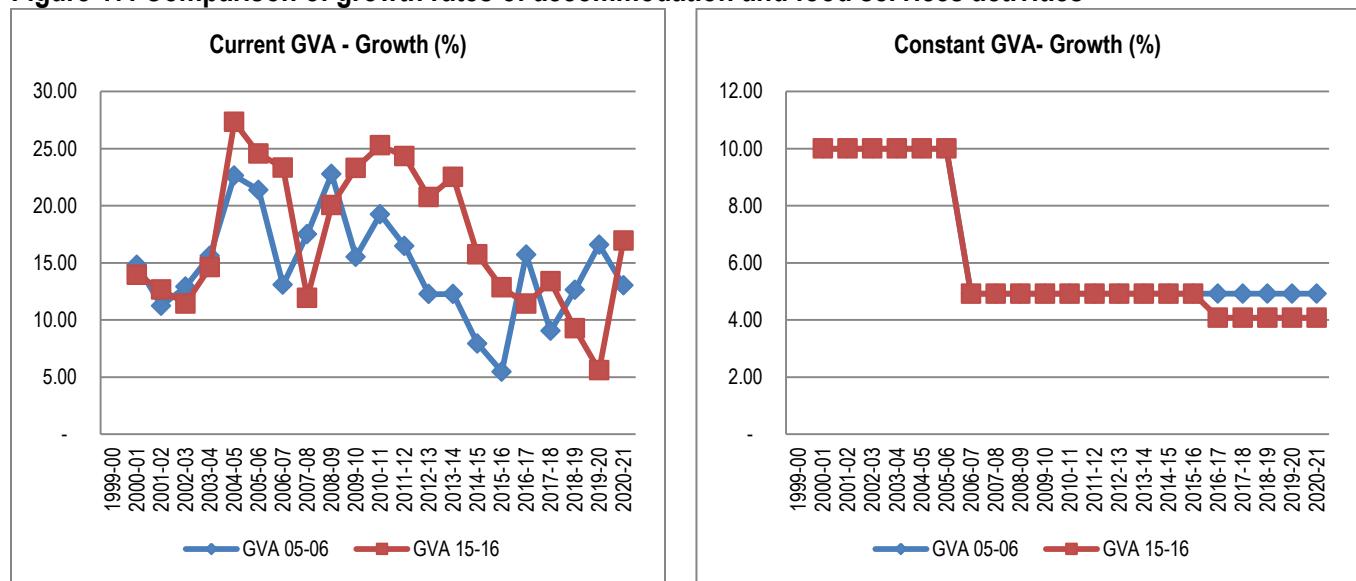


Table 18: Output, IC and GVA of information and communication on 2015-16 base year
(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	113647	32727	80920		181724	80146	101578	
2000-01	125301	34828	90473	11.81	183222	80113	103109	1.51
2001-02	139134	36999	102134	12.89	186585	80869	105716	2.53
2002-03	158904	39544	119360	16.87	199262	86046	113216	7.09
2003-04	194258	53093	141166	18.27	242545	101992	140554	24.15
2004-05	249173	79120	170054	20.46	307282	129054	178228	26.80
2005-06	323561	152645	170915	0.51	402510	161476	241034	35.24
2006-07	395317	200821	194497	13.80	482498	182754	299744	24.36
2007-08	503916	250819	253097	30.13	622454	230079	392375	30.90
2008-09	524486	235939	288546	14.01	694883	238601	456281	16.29
2009-10	547199	241788	305411	5.84	683354	233833	449521	-1.48
2010-11	582524	231391	351133	14.97	666047	223969	442078	-1.66
2011-12	697541	275153	422388	20.29	776373	261056	515318	16.57
2012-13	776569	323507	453062	7.26	822100	282183	539917	4.77
2013-14	791084	319060	472023	4.19	803918	273820	530098	-1.82
2014-15	839450	315368	524082	11.03	845287	273195	572091	7.92
2015-16	894004	282096	611908	16.76	894004	282096	611908	6.96
2016-17	981749	308353	673396	10.05	982362	306217	676145	10.50
2017-18	1020667	332262	688405	2.23	1009930	305600	704330	4.17
2018-19	1177532	411637	765895	11.26	1125041	361084	763957	8.47
2019-20	1297704	367588	930116	21.44	1187082	316234	870848	13.99
2020-21	1456874	435784	1021090	9.78	1317750	361234	956516	9.84

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 18: Comparison of growth rates of information and communication

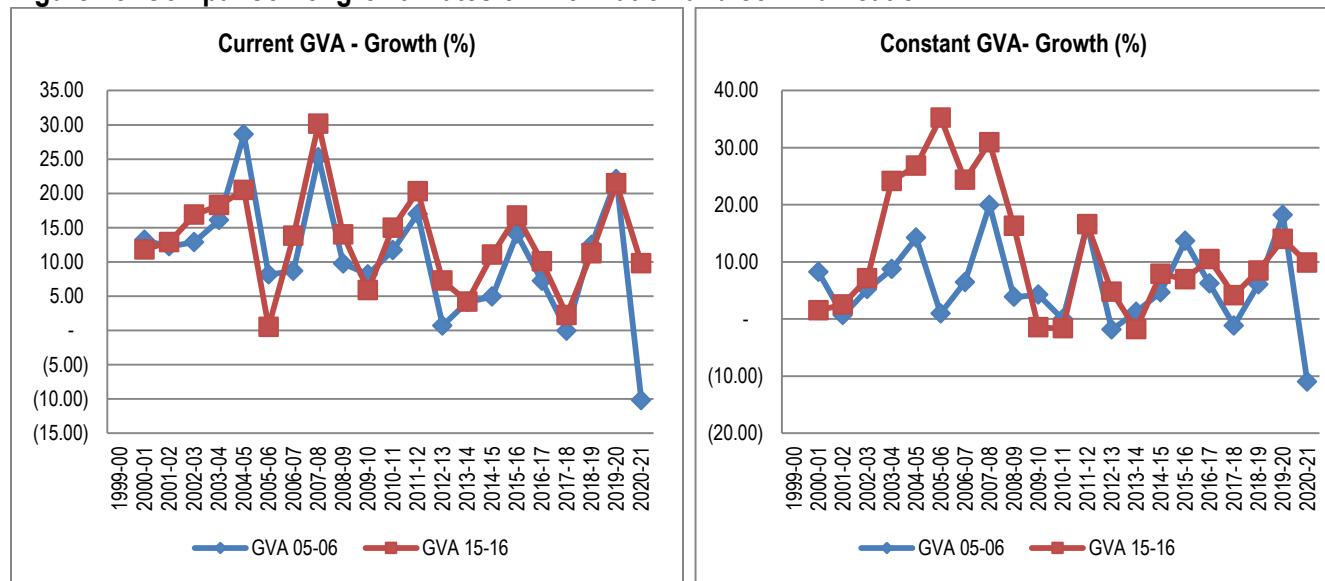
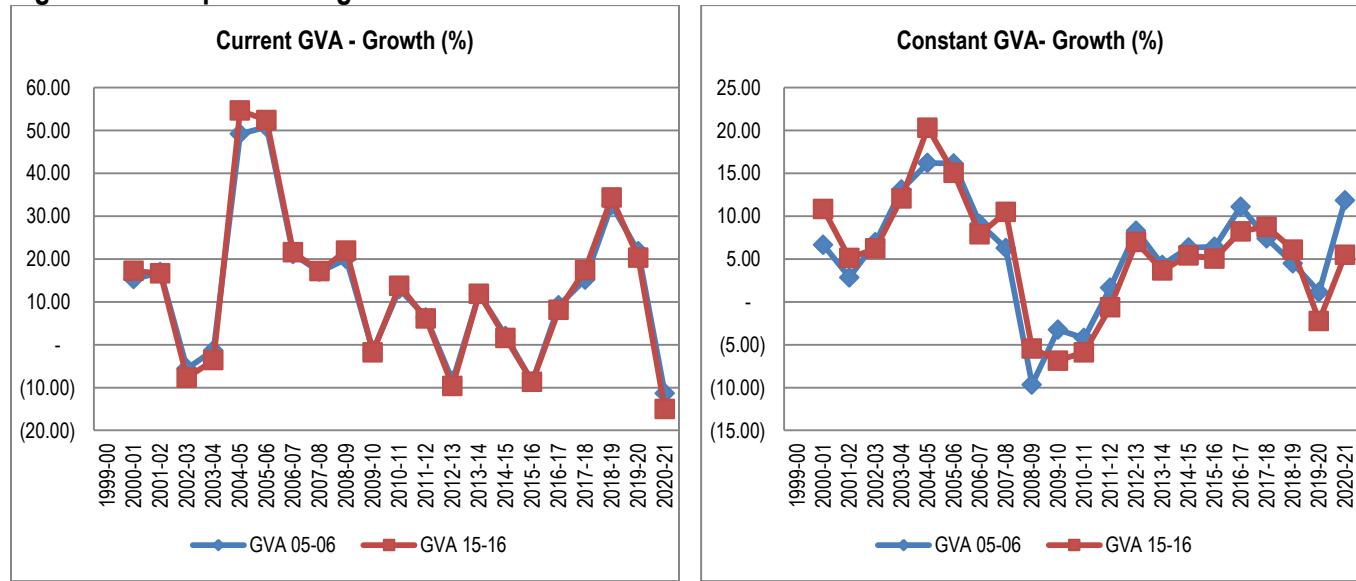


Table 19: Output, IC and GVA of financial and insurance activities on 2015-16 base year
(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	110833	15290	95542		276263	47483	228780	
2000-01	130465	18431	112034	17.26	308200	54628	253572	10.84
2001-02	152134	21451	130684	16.65	327268	60697	266571	5.13
2002-03	139689	19084	120605	-7.71	335404	52176	283228	6.25
2003-04	134012	17717	116295	-3.57	365182	47712	317471	12.09
2004-05	209304	29421	179883	54.68	457569	75585	381984	20.32
2005-06	319554	45375	274179	52.42	545934	106366	439568	15.08
2006-07	402714	69324	333391	21.60	620651	146463	474188	7.88
2007-08	474226	83576	390650	17.17	688348	164409	523940	10.49
2008-09	574536	97916	476620	22.01	667062	171573	495489	-5.43
2009-10	580442	112270	468172	-1.77	640595	179012	461583	-6.84
2010-11	661348	128693	532655	13.77	614340	179919	434421	-5.88
2011-12	713786	148496	565290	6.13	618853	187216	431637	-0.64
2012-13	672432	161642	510790	-9.64	651399	189640	461759	6.98
2013-14	757211	185557	571655	11.92	678332	199680	478651	3.66
2014-15	785181	204539	580642	1.57	715105	210437	504669	5.44
2015-16	760414	230229	530185	-8.69	760414	230229	530185	5.06
2016-17	829583	256196	573387	8.15	818594	244766	573828	8.23
2017-18	957550	284149	673401	17.44	882321	258242	624079	8.76
2018-19	1204198	299317	904881	34.37	916173	254024	662149	6.10
2019-20	1377891	288899	1088992	20.35	870651	223216	647435	-2.22
2020-21	1234629	309344	925285	-15.03	905229	222241	682988	5.49

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 19: Comparison of growth rates of financial and insurance activities



2.3.6. Real Estate Activities (Ownership of Dwellings)

The base year results relating to ownership of dwellings are extrapolated forward separately at constant prices for urban and rural areas by applying inter-census growth of urban dwellings @4.08% and rural dwellings @ 2.77% comprising of 2 & more rooms. The backward series has been estimated at constant prices by applying the real growth rates of the same industry in old base estimates. CPI Rent-urban and CPI Rent-rural have been used as deflators to convert constant price estimates of urban and rural areas separately into current prices. The output and IC of real estate agents have also been extrapolated backward at constant by old base growth rates of housing services at constant prices which have been converted into current prices by applying CPI Rent-urban.

The summary of output, IC and GVA of real estate activities at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 20, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 20.

2.3.7. Public Administration and Social Security (General Government)

Under the 2015-16 rebasing, the general government as an institutional sector is further disaggregated into public administration and social security, education, and human health and social work activities. The output and IC in the General Government sector are compiled directly at current prices from the data obtained/extracted from budget documents of the governments. The output and IC of autonomous bodies engaged in education and human health & social work have been added to respective industries. For the estimation of backward series of output, IC, and GVA, the current price data reported by federal, provincial, and district governments on the old base has been used, which has been adjusted to incorporate the results of autonomous bodies. The estimates at constant prices have been compiled by using CPI-General, CPI-education, and CPI-health as the deflators for respective activities.

The summary of output, IC and GVA of public administration and social security services at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 21, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 21.

2.3.8. Education

In 2015-16 rebasing, the education industry is estimated separately for public and private sectors and non-profit institutions. For the backward series, the public sector has been assessed at current prices based on data obtained from government budget documents whereas the private sector including Non-Governmental Organizations (NGOs) has been estimated at constant prices through the growth of enrolment of students. The CPI-education has been used as a deflator for output whereas urban CPI-energy and rent have been used as a deflator for IC.

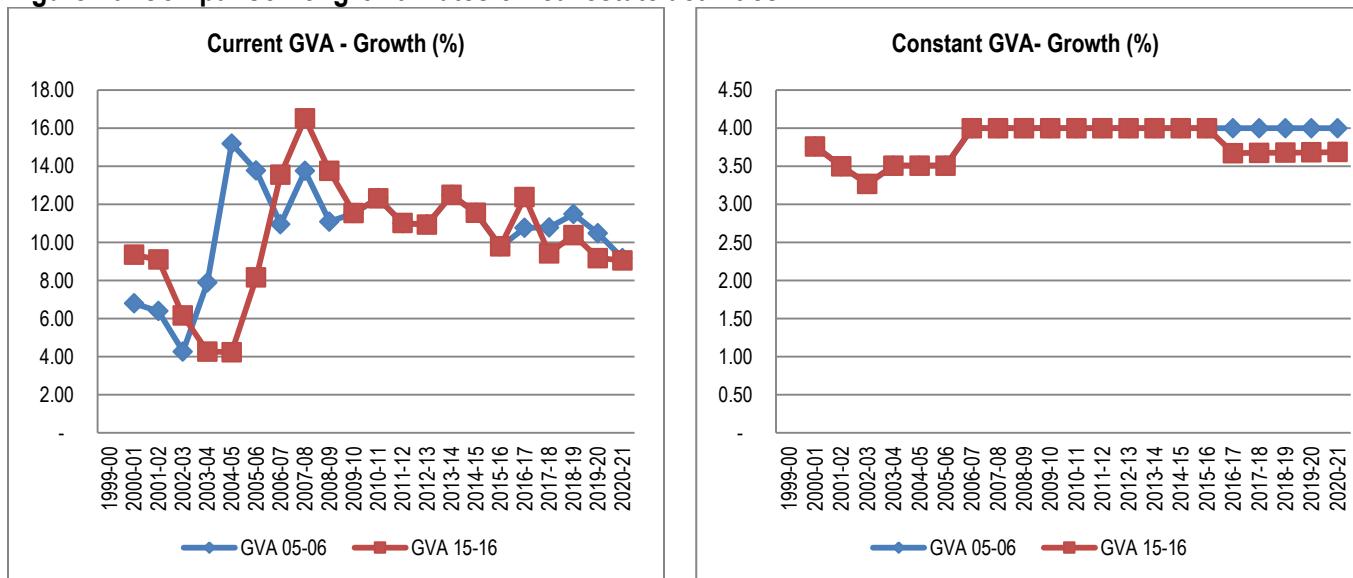
The summary of output, IC and GVA of education industry at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 22, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 22.

Table 20: Output, IC and GVA of real estate activities on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	386183	21023	365160		1011215	55047	956167	
2000-01	422318	22990	399328	9.36	1049236	57117	992119	3.76
2001-02	460773	25083	435690	9.11	1085960	59116	1026843	3.50
2002-03	489185	26630	462556	6.17	1121470	61049	1060421	3.27
2003-04	510070	27767	482304	4.27	1160834	63192	1097642	3.51
2004-05	531699	28944	502755	4.24	1201579	65410	1136169	3.51
2005-06	575112	31307	543805	8.17	1243755	67706	1176049	3.51
2006-07	653091	35552	617538	13.56	1293505	70414	1223091	4.00
2007-08	761005	41427	719578	16.52	1345245	73231	1272014	4.00
2008-09	865735	47128	818607	13.76	1399055	76160	1322895	4.00
2009-10	965695	52569	913125	11.55	1455017	79207	1375811	4.00
2010-11	1084675	59046	1025628	12.32	1513218	82375	1430843	4.00
2011-12	1204231	65555	1138676	11.02	1573747	85670	1488077	4.00
2012-13	1336035	72730	1263306	10.95	1636696	89097	1547600	4.00
2013-14	1503011	81819	1421192	12.50	1702164	92661	1609504	4.00
2014-15	1676782	91279	1585503	11.56	1770251	96367	1673884	4.00
2015-16	1841061	100222	1740839	9.80	1841061	100222	1740839	4.00
2016-17	2069237	112688	1956549	12.39	1908708	103929	1804780	3.67
2017-18	2264477	123340	2141137	9.43	1978909	107776	1871132	3.68
2018-19	2499778	136182	2363596	10.39	2051760	111770	1939990	3.68
2019-20	2729239	148718	2580521	9.18	2127366	115915	2011451	3.68
2020-21	2976648	162219	2814429	9.06	2205832	120218	2085614	3.69

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 20: Comparison of growth rates of real estate activities

**Table 21: Output, IC and GVA of public administration and social security on 2015-16 base year
(Rs. in Million)**

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	369986	113321	256665		1116035	341824	774211	
2000-01	367935	95564	272371	6.12	1062974	276086	786888	1.64
2001-02	434366	131498	302868	11.20	1201894	363856	838038	6.50
2002-03	479755	146725	333030	9.96	1282099	392108	889991	6.20
2003-04	519379	156092	363287	9.09	1346254	404597	941657	5.81
2004-05	573326	173608	399718	10.03	1421122	430327	990795	5.22
2005-06	871209	400150	471059	17.85	2007196	921913	1085283	9.54
2006-07	899128	392216	506912	7.61	1889900	824409	1065491	-1.82
2007-08	996629	447849	548781	8.26	1943787	873467	1070320	0.45
2008-09	1202452	651407	551045	0.41	2093948	1134358	959590	-10.35
2009-10	1318556	661363	657194	19.26	2085510	1046052	1039458	8.32
2010-11	1454222	651143	803079	22.20	2023645	906107	1117537	7.51
2011-12	1737252	736170	1001081	24.66	2177820	922864	1254957	12.30
2012-13	2030050	848159	1181891	18.06	2370411	990362	1380049	9.97
2013-14	2053218	880092	1173126	-0.74	2207190	946090	1261099	-8.62
2014-15	2343974	1021760	1322214	12.71	2410648	1050824	1359824	7.83
2015-16	2534165	1075700	1458465	10.30	2534165	1075700	1458465	7.25
2016-17	2751116	1128711	1622405	11.24	2631164	1083174	1547990	6.14
2017-18	3093374	1201675	1891699	16.60	2810484	1093354	1717130	10.93
2018-19	3386918	1284473	2102445	11.14	2768960	992184	1776775	3.47
2019-20	4159730	1773989	2385741	13.47	3066762	1236610	1830153	3.00
2020-21	4503766	1936007	2567759	7.63	3085136	1265043	1820093	-0.55

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 21: Comparison of growth rates of public administration and social security

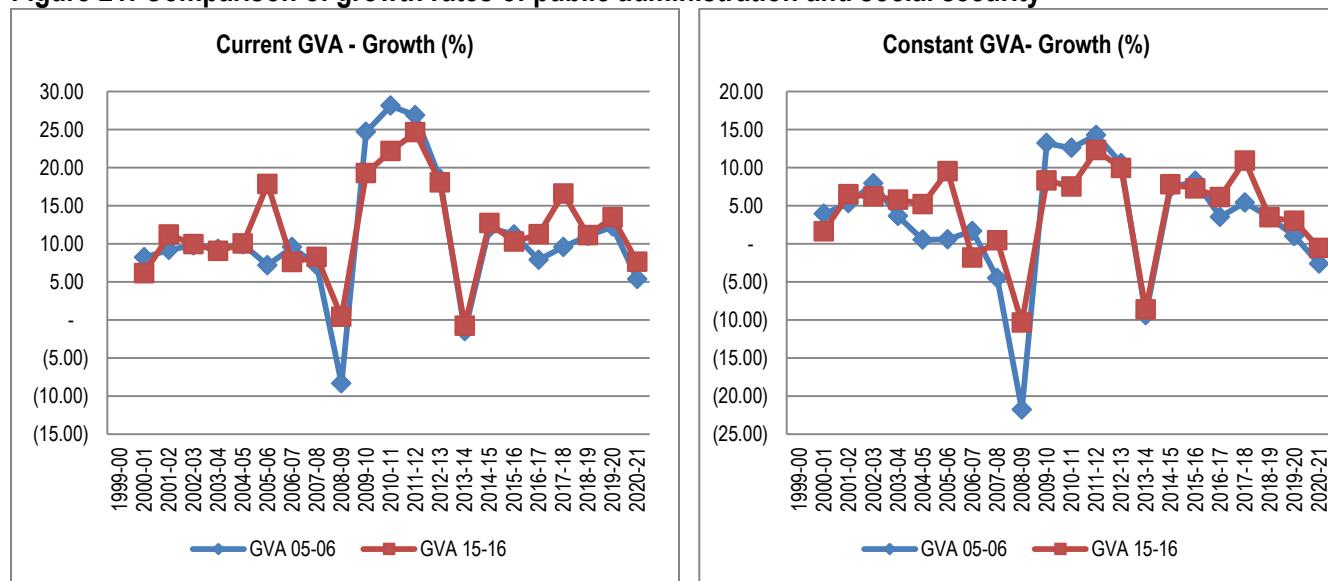
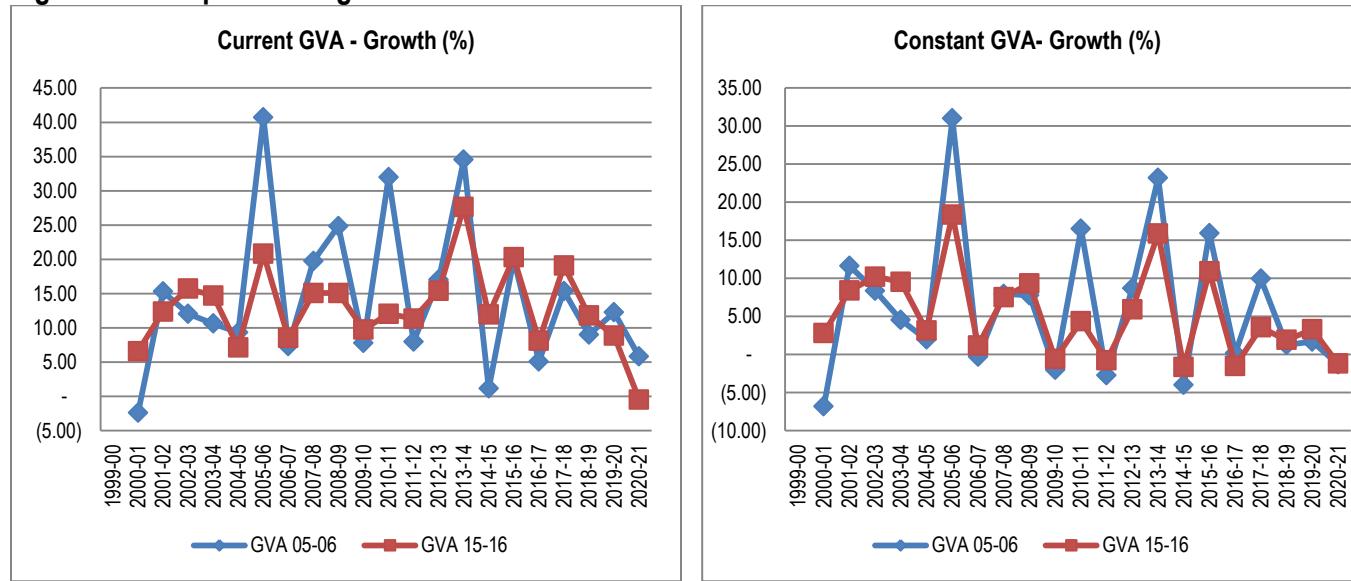


Table 22: Output, IC and GVA of education on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	140395	21281	119114		418708	63469	355239	
2000-01	149021	22067	126954	6.58	428702	63482	365220	2.81
2001-02	168186	25521	142665	12.38	466667	70813	395855	8.39
2002-03	194997	29929	165069	15.70	515455	79114	436341	10.23
2003-04	223932	34594	189338	14.70	565323	87336	477987	9.54
2004-05	239772	36906	202866	7.15	582662	89684	492978	3.14
2005-06	295368	50233	245135	20.84	703107	119577	583531	18.37
2006-07	320196	54181	266015	8.52	710601	120241	590360	1.17
2007-08	365558	59420	306138	15.08	757954	123202	634752	7.52
2008-09	434702	82415	352287	15.07	856213	162329	693884	9.32
2009-10	476621	89980	386641	9.75	850364	160538	689826	-0.58
2010-11	523503	90264	433239	12.05	870045	150016	720029	4.38
2011-12	583105	100716	482388	11.34	863607	149166	714441	-0.78
2012-13	672702	115962	556740	15.41	914502	157645	756857	5.94
2013-14	857658	147074	710584	27.63	1058674	181545	877128	15.89
2014-15	960509	165083	795426	11.94	1041778	179050	862728	-1.64
2015-16	1154949	198090	956859	20.30	1154949	198090	956859	10.91
2016-17	1276902	242206	1034696	8.13	1178726	236304	942422	-1.51
2017-18	1464923	232861	1232062	19.07	1184880	208995	975884	3.55
2018-19	1621996	244290	1377706	11.82	1190517	195937	994580	1.92
2019-20	1734821	235297	1499524	8.84	1202143	174782	1027361	3.30
2020-21	1789346	296839	1492507	-0.47	1219292	204061	1015232	-1.18

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 22: Comparison of growth rates of education

2.3.9. Human Health and Social Work Activities

In 2015-16 rebasing, human health and social work activities are estimated separately for public and private sectors and non-profit institutions. For the backward series, the public sector has been assessed at current prices based on data obtained from government budget documents whereas the private sector including NGOs has been estimated at constant prices through the growth of health personnel. The CPI-Health service has been used as a deflator for output whereas a combined CPI-health (goods part), rent & energy has been used as a deflator for IC.

The summary of output, IC and GVA of human health and social work activities at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 23, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 23.

2.3.10. Other Private Services

In 2015-16 rebasing "Other Private Services" include the Professional, scientific and technical activities (Other Business Activities), Administrative and support service activities, Arts, entertainment and recreation (Creative, arts, and entertainment activities and Sports activities and amusement and recreation activities), and Other service activities (Membership organizations, Repair of computers and personal and households goods, and Other personal service activities such as washing, dry-cleaning, hairdressing, and other beauty treatment, shoe shiners, etc.). The compilation methodology of output, IC, and GVA for the backward series of these activities is narrated below:-

i) Professional, Scientific and Technical Activities

These activities include legal & accounting activities, activities of head offices, management consultancy services & architects and engineers' activities, scientific research and development, advertising and market research, other professional, scientific, and technical activities, and veterinary activities. The backward series of output and IC of these activities has been estimated at constant prices by using the growth of the number of engineers derived from a long-run cumulative series. The CPI-general (2015-16=100) has been used as a deflator to obtain estimates at current prices.

ii) Administrative and Support Service Activities

The administrative and support service activities include renting machinery and equipment without operators, employment activities, private security services, and office support activities such as photocopying, etc. The output and IC in the backward series have been estimated separately at constant prices by applying growth rates in enrollment of technical & vocational institutions derived from a long-term cumulative distribution starting from 1965-66. The current output has been derived by applying the CPI-general whereas the current IC has been compiled by using urban CPI-rent and energy.

iii) Arts, Entertainment, and Recreation

In 2015-16 rebasing, the arts, entertainment, and recreation activities include creative, arts, and entertainment activities; libraries, archives, museums, and other cultural activities; sports activities and amusement & recreation activities. The backward series of output and IC of these activities have been compiled at current prices through growth in output and IC of TV channels i.e. PTV and PBC. The output at constant prices of 2015-16 has been compiled by using CPI- recreation as the deflator whereas combined urban CPI-rent and energy have been used to derive IC at constant prices.

iv) Other services activities

Other service activities are comprised of membership organizations, repair of computers and personal and household goods, other personal services activities such as washing, dry-cleaning, hair-dressing, etc., and domestic staff. Primarily, backward series of output and IC of these activities have been estimated separately at constant prices by using a fixed inter-census urban population growth rate of 3.01% except for repair of computers and personal and household goods and other personal services activities from 1999-2000 to 2005-06 where real growth rates obtained from old base series were used. The CPI-general has been used as a deflator to derive output at current prices whereas combined CPI-rent and energy have been used to derive IC at current prices where applicable.

The summary of output, IC and GVA of **other private services** at current and constant prices from 1999-2000 to 2019-20 on 2015-16 base year is reported in Table 24, whereas the comparison of growth rates of the GVA on 2005-06 base and 2015-16 base is presented in Figure 24.

2.5. Compilation of Net Primary Income

The methodology of compiling the net primary income has witnessed a modest change in the 2015-16 rebasing. In old base estimates, 14% of receipts through remittances were used to be added as additional inflows on the assumption of accompanied cash with migrant workers entering Pakistan. However, after the consultation with stakeholders, the aforementioned component has been excluded from the compilation of the net primary income of Pakistan under the 2015-16 rebasing. Hence, the backward series of net primary income under 2015-16 rebasing at current prices is comprised of net receipts on accounts of investment income, royalties/trademarks, and worker's remittances. A specifically compiled, unit value index for imports, with 2015-16 as the base year, has been used to obtain estimates of net primary income at constant prices.

The aggregates of net primary income have been used to compile the estimates of backward series of Gross National Income (GNI) and Per capita Income at current and constant prices.

Table 23: Output, IC and GVA of human health and social work on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	64630	24889	39741		188261	69107	119155	
2000-01	72444	27706	44738	12.58	196590	72140	124449	4.44
2001-02	82149	31200	50949	13.88	207656	76209	131447	5.62
2002-03	90236	34282	55954	9.82	223301	81952	141349	7.53
2003-04	97860	37290	60570	8.25	234565	86086	148479	5.04
2004-05	104765	39939	64825	7.02	246448	90454	155993	5.06
2005-06	117441	45248	72192	11.36	273500	100682	172817	10.78
2006-07	134928	52643	82285	13.98	304444	112319	192125	11.17
2007-08	162124	63012	99112	20.45	328917	121495	207422	7.96
2008-09	234334	90291	144042	45.33	427931	159530	268400	29.40
2009-10	267706	103820	163886	13.78	459332	171387	287945	7.28
2010-11	298649	115981	182668	11.46	466635	173877	292759	1.67
2011-12	372983	142711	230272	26.06	514539	192020	322519	10.17
2012-13	462404	172483	289922	25.90	556839	208011	348828	8.16
2013-14	530486	197969	332517	14.69	589571	220318	369253	5.86
2014-15	604920	225841	379079	14.00	631714	236213	395501	7.11
2015-16	672605	251565	421041	11.07	672605	251565	421041	6.46
2016-17	818006	310157	507849	20.62	776267	304338	471929	12.09
2017-18	988868	378913	609956	20.11	832031	333269	498762	5.69
2018-19	1102253	398552	703701	15.37	851715	314678	537037	7.67
2019-20	1268682	473596	795087	12.99	914639	344495	570144	6.16
2020-21	1446335	561219	885116	11.32	964348	377227	587121	2.98

Note: GVA figures may differ from those on the website of the PBS due to FISIM

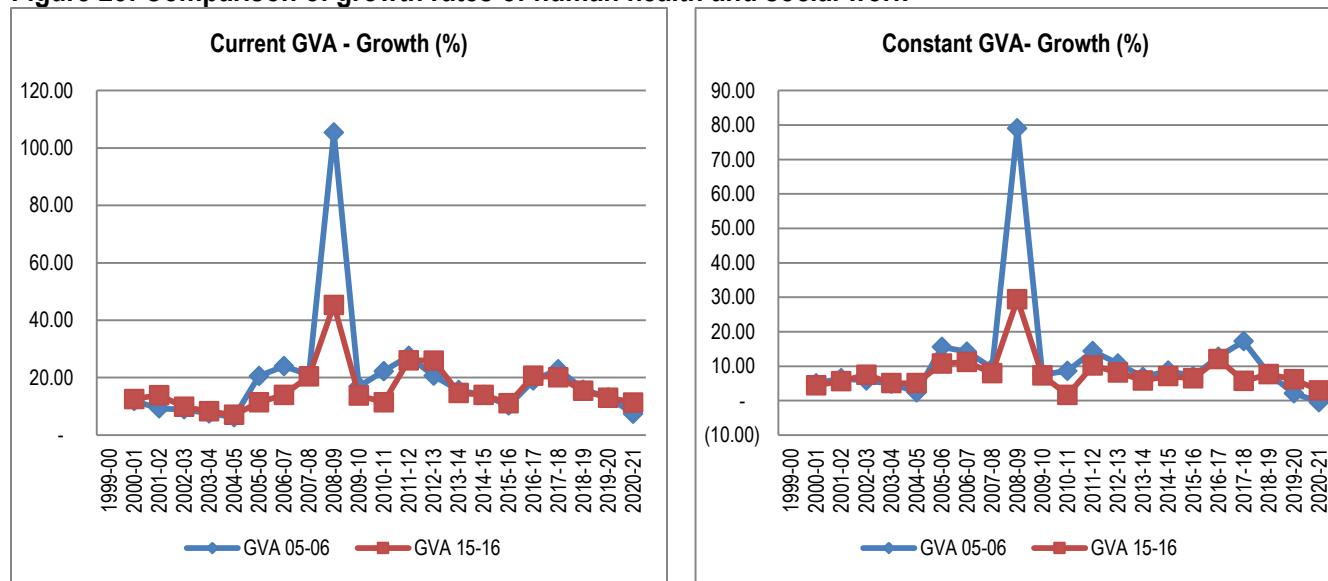
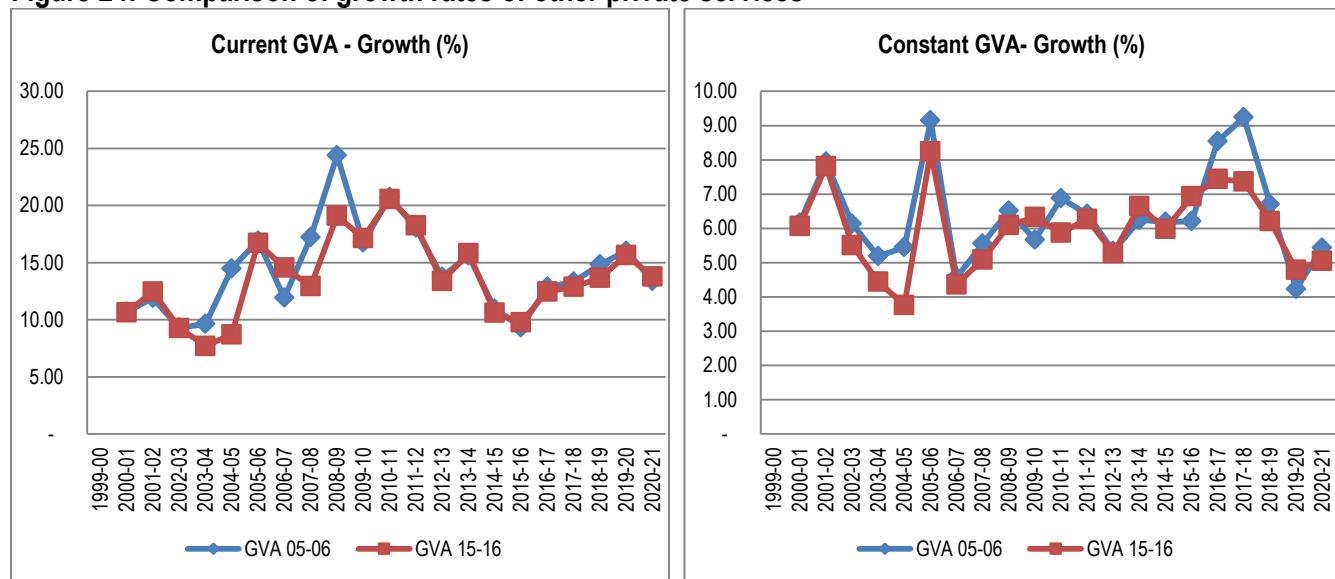
Figure 23: Comparison of growth rates of human health and social work

Table 24: Output, IC and GVA of other private services on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	579515	274987	304527		1745462	818762	926700	
2000-01	640188	303268	336920	10.64	1847032	864083	982949	6.07
2001-02	716211	337298	378913	12.46	1979026	919277	1059749	7.81
2002-03	781721	367668	414052	9.27	2084733	966567	1118166	5.51
2003-04	840098	394144	445954	7.70	2174084	1006232	1167851	4.44
2004-05	911630	426801	484828	8.72	2256036	1044212	1211824	3.77
2005-06	1063249	497302	565948	16.73	2446758	1135046	1311711	8.24
2006-07	1216735	568367	648369	14.56	2555026	1186075	1368951	4.36
2007-08	1380153	647888	732265	12.94	2690330	1251668	1438662	5.09
2008-09	1643097	771008	872089	19.09	2860671	1334350	1526321	6.09
2009-10	1929952	908263	1021689	17.15	3052208	1429302	1622907	6.33
2010-11	2327270	1095463	1231807	20.57	3239161	1520992	1718169	5.87
2011-12	2753893	1297130	1456763	18.26	3453247	1627205	1826042	6.28
2012-13	3119327	1467569	1651758	13.39	3642097	1719705	1922391	5.28
2013-14	3626615	1713416	1913199	15.83	3898490	1848395	2050096	6.64
2014-15	4027252	1910899	2116353	10.62	4141867	1969115	2172752	5.98
2015-16	4444963	2121498	2323465	9.79	4444963	2121498	2323465	6.94
2016-17	5028386	2415280	2613106	12.47	4797067	2300762	2496305	7.44
2017-18	5713761	2764095	2949666	12.88	5186623	2506399	2680224	7.37
2018-19	6530598	3178008	3352590	13.66	5536016	2689278	2846738	6.21
2019-20	7565860	3688670	3877190	15.65	5821762	2838683	2983079	4.79
2020-21	8651693	4239993	4411701	13.79	6156789	3023140	3133649	5.05

Note: GVA figures may differ from those on the website of the PBS due to FISIM

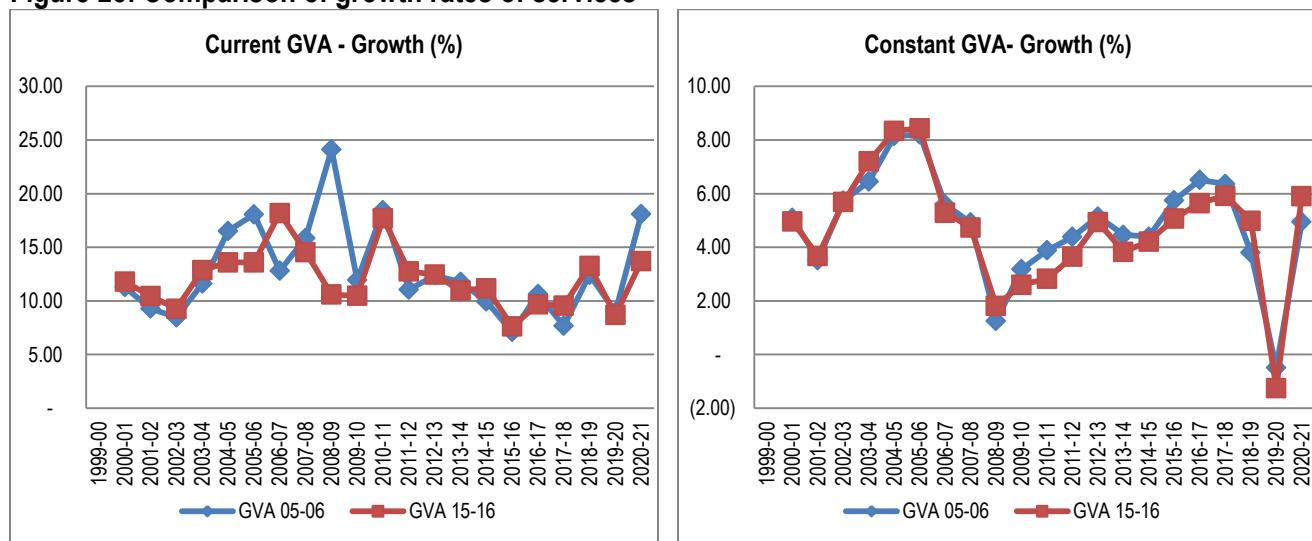
Figure 24: Comparison of growth rates of other private services

Summary Results: Services**Table 25: Output, IC and GVA of services on 2015-16 base year**

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	3740139	1045977	2694163		11681447	3506234	8175213	
2000-01	4153337	1141659	3011678	11.79	12207088	3626588	8580500	4.96
2001-02	4582740	1256433	3326308	10.45	12722355	3826473	8895882	3.68
2002-03	5057043	1422403	3634639	9.27	13415344	4013790	9401554	5.68
2003-04	5711106	1609251	4101855	12.85	14375328	4296709	10078619	7.20
2004-05	6569618	1910182	4659436	13.59	15559619	4640852	10918767	8.34
2005-06	7897969	2605724	5292245	13.58	17306679	5466847	11839832	8.44
2006-07	9211252	2956309	6254943	18.19	18187176	5721286	12465891	5.29
2007-08	10606453	3441572	7164881	14.55	19077814	6021310	13056504	4.74
2008-09	12336011	4412408	7923603	10.59	19809611	6516670	13292941	1.81
2009-10	13804578	5051542	8753035	10.47	20233905	6594993	13638912	2.60
2010-11	16167120	5864695	10302424	17.70	20671866	6648090	14023775	2.82
2011-12	18571892	6955505	11616387	12.75	21442178	6906696	14535482	3.65
2012-13	20821094	7758923	13062172	12.45	22472308	7218664	15253643	4.94
2013-14	23087498	8592173	14495325	10.97	23332592	7494390	15838202	3.83
2014-15	24613625	8499270	16114354	11.17	24394373	7888714	16505659	4.21
2015-16	25619137	8276590	17342547	7.62	25619137	8276590	17342547	5.07
2016-17	28006104	8988118	19017986	9.66	27137563	8816483	18321080	5.64
2017-18	31063679	10226469	20837210	9.57	28600901	9194806	19406095	5.92
2018-19	35901880	12305188	23596691	13.24	29889232	9514685	20374547	4.99
2019-20	38832690	13187958	25644732	8.68	29679999	9561443	20118556	-1.26
2020-21	43809740	14653377	29156363	13.69	31512008	10206193	21305815	5.90

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 25: Comparison of growth rates of services

2.4 Summary Results: Overall Economy

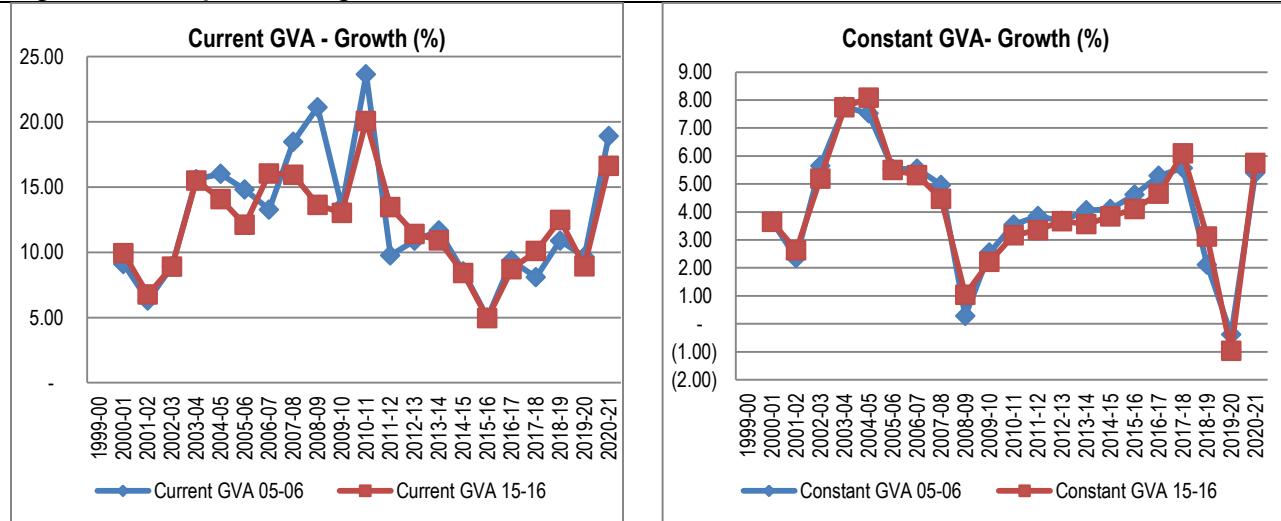
Table 26: Output, IC and GVA of overall economy on 2015-16 base year

(Rs. in Million)

Financial Year	Current				Constant			
	Output	IC	GVA	Growth (%)	Output	IC	GVA	Growth (%)
1999-00	8511371	3597306	4914064		27588027	11703088	15884940	
2000-01	9326002	3924029	5401973	9.93	28605266	12140254	16465012	3.65
2001-02	9848456	4081143	5767313	6.76	29204912	12307894	16897018	2.62
2002-03	10812437	4531910	6280527	8.90	30651314	12876726	17774588	5.19
2003-04	12783556	5528853	7254703	15.51	33645050	14495183	19149867	7.74
2004-05	14800824	6524718	8276105	14.08	36538465	15840223	20698242	8.09
2005-06	17000909	7722919	9277990	12.11	38665993	16830294	21835699	5.50
2006-07	19534619	8768245	10766374	16.04	41006626	18009744	22996883	5.32
2007-08	22903294	10419565	12483729	15.95	43199107	19173503	24025604	4.47
2008-09	26564834	12378179	14186656	13.64	43734389	19459097	24275292	1.04
2009-10	31087937	15055168	16032769	13.01	45838412	21024208	24814204	2.22
2010-11	37099526	17848482	19251045	20.07	46655007	21056074	25598933	3.16
2011-12	42908106	21065767	21842339	13.46	48574822	22117607	26457215	3.35
2012-13	47110475	22776153	24334322	11.41	49834270	22406117	27428154	3.67
2013-14	52374257	25383859	26990399	10.91	51742496	23336687	28405809	3.56
2014-15	53288201	24026061	29262141	8.42	52266128	22769734	29496393	3.84
2015-16	53858704	23150221	30708483	4.94	53858703	23150222	30708481	4.11
2016-17	58721657	25339469	33382188	8.71	56855587	24719432	32136154	4.65
2017-18	65720678	28969764	36750914	10.09	60455439	26360630	34094809	6.09
2018-19	75796071	34454412	41341659	12.49	62232946	27075459	35157487	3.12
2019-20	80346419	35315827	45030592	8.92	60813908	25995761	34818147	-0.97
2020-21	93379482	40861319	52518163	16.63	64682903	27860338	36822565	5.76

Note: GVA figures may differ from those on the website of the PBS due to FISIM

Figure 26: Comparison of growth rates of overall GVA



The comparison of growth rates of the GVA on 2005-06 base and 2015-16 base for agriculture, industry and services from 1999-2000 to 2019-20 is presented in Table 27.

Table 27: Comparison of real growth rates by major industry groups in 2005-06 and 2015-16 rebasing

Financial Year	Agriculture		Industry		Services		Overall GVA		(%)
	2005-06 base	2015-16 base							
1999-00	-	-	-	-	-	-	-	-	-
2000-01	-0.72	-0.08	5.74	6.66	5.09	4.96	3.66	3.65	
2001-02	0.76	1.27	1.27	1.85	3.52	3.68	2.36	2.62	
2002-03	4.42	3.57	6.96	6.52	5.74	5.68	5.65	5.19	
2003-04	2.85	3.12	17.47	17.19	6.45	7.20	7.76	7.74	
2004-05	7.03	6.83	6.51	9.27	8.15	8.34	7.52	8.09	
2005-06	1.27	1.85	3.48	2.74	8.20	8.44	5.53	5.50	
2006-07	3.45	3.55	7.69	7.96	5.59	5.29	5.55	5.32	
2007-08	1.82	0.82	8.33	8.80	4.92	4.74	4.97	4.47	
2008-09	3.44	3.38	-5.20	-4.07	1.25	1.81	0.28	1.04	
2009-10	0.24	0.31	3.30	3.77	3.18	2.60	2.55	2.22	
2010-11	1.95	2.69	4.29	4.77	3.88	2.82	3.54	3.16	
2011-12	3.61	3.32	2.66	2.57	4.39	3.65	3.85	3.35	
2012-13	2.70	3.06	0.72	0.88	5.14	4.94	3.68	3.67	
2013-14	2.50	2.42	4.51	4.33	4.46	3.83	4.06	3.56	
2014-15	2.16	1.80	5.24	5.45	4.39	4.21	4.10	3.84	
2015-16	0.21	0.36	5.77	6.13	5.75	5.07	4.61	4.11	
2016-17	2.24	2.21	4.73	4.75	6.51	5.64	5.29	4.65	
2017-18	4.03	3.86	4.74	9.24	6.36	5.92	5.57	6.09	
2018-19	0.59	0.93	-1.35	0.32	3.80	4.99	2.12	3.12	
2019-20	3.80	3.88	-3.91	-5.59	-0.49	-1.26	-0.38	-0.97	
2020-21	2.77	3.51	3.57	8.11	4.43	5.90	3.94	5.76	

Note: GVA figures may differ from those on the website of the PBS due to FISIM

CHAPTER 3

3. Compilation of Expenditure on GDP at Current and Constant Prices

3.1. Introduction

The estimates of expenditure on GDP are the total of final uses of goods and services measured in purchaser's value less the value of imports of goods and services. The principal components of final uses of GDP are:

- i. Household final consumption expenditure
- ii. NPISH's final consumption expenditure
- iii. General Government final consumption expenditure
- iv. Gross fixed capital formation
- v. Changes in inventories
- vi. Acquisition less disposal of valuables
- vii. Exports of goods and services
- viii. *Minus* Imports of goods and services

If the net primary income from the rest of the world is added, it becomes the Gross National Income (GNI). The methodology for compiling the backward series of aforementioned components is presented below:-

3.2. Household final consumption expenditure

A Household's consumption expenditure consists of expenditure incurred by resident households on the consumption of goods or services. 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, the household's final consumption expenditure is estimated as the residual of the GDP while the remaining components of the aggregate demand (S.No. ii to viii in Para 3.1) such as NPISH and General Government final consumption expenditure, gross capital formation, and exports less imports of goods & services are compiled directly. This practice is common in both 2005-06 as well as 2015-16 rebasing. As such, the household's final consumption expenditure in the estimates of the backward series has also been derived as the residual of the GDP separately at current and constant prices.

3.3. NPISH final 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. In Pakistan, NPISHs are comprised of NGOs and membership organizations. The final consumption expenditure of NPISHs is equal to their operating costs and all being individual consumption expenditures in nature. In 2015-16 rebasing, the final consumption expenditure of NPISH, which account for about 1% of GDP, has been estimated separately through the known values of output for the first time. The backward series of final consumption of NPISH has been compiled at current prices through the combined output of NGOs and membership organizations which has been converted into constant prices by using CPI (General) as the deflator.

3.4. General government final consumption expenditure

The final consumption expenditure by the government accounts for more than 10% of GDP in new base estimates. In Pakistan, it is compiled by the sum of costs approach i.e. compensation of employees, intermediate consumption, consumption of fixed capital, government purchases for the benefit of households, taxes on production, and non-market output of State Bank of Pakistan. The general government's final consumption expenditure 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 the 2005-06 base and 2015-16 base is the same except for the inclusion of fresh estimates of non-market output of the State Bank of Pakistan and those of autonomous bodies in the 2015-16 rebasing. The backward series of general government expenditure by COFOG at current prices have been compiled separately for each function by using their respective growth rates which have been summed up to obtain the aggregate of the final expenditure of the sector. CPI (General) with 2015-16 as the base year has been used to obtain estimates at constant prices.

3.5. Gross fixed capital formation (GFCF)

GFCF is the net acquisition, addition, and alteration of produced fixed assets such as dwellings, other buildings and structures, machinery & equipment, cultivated assets, and weapon systems, mineral exploration, software & databases, research & development, and literary & artistic originals, etc. The fixed assets produced and retained by establishments for their own final use are treated as "own account capital formation" under respective asset categories.

In Pakistan, GFCF is compiled by type of industries as well as by type of assets separately for the private sector, public sector, and general government. The GFCF in the private sector is being compiled by commodity flow approach, survey method, or financing approach. The details are available in the PBS publication titled "National Accounts of Pakistan 2015-2016 Base Year: Concepts, Sources, and Methods". While the survey method is used in most industries, the commodity flow approach is adopted in the crops, construction, and transport industries, and the financing approach is used to estimate GFCF in under-construction units engaged in large-scale manufacturing. The industry-wise methodology for compiling the GFCF at current and constant prices is discussed below:-

3.5.1. Agriculture, Forestry, and Fishing

i) Crops

The GFCF in crops is comprised of three major components i.e. i) imported and domestically produced and sold machinery and equipment at large scale, ii) tube wells and machinery & equipment produced and sold at small-scale, and iii) Miscellaneous components such as land improvement, farm buildings, farm transport, water courses, orchards, etc. The backward series of GFCF of imported and domestically produced and sold machinery and equipment at large scale has been estimated at current prices by using the information on imported and domestically produced and sold machinery and equipment used for agriculture purposes. The GFCF related to tube wells and small-scale machinery and equipment has been estimated at constant prices by using growth in the number of tube wells and machinery and equipment respectively. The miscellaneous component has also been estimated at constant prices by using inter-census growth rates obtained from agriculture and machinery census. Specifically compiled WPI- metal products, machinery & equipment with 2015-16 as the base year, has been used as the deflator.

ii) Cotton Ginning

The GFCF of the cotton ginning industry has been estimated for the first time under the 2015-16 rebasing. The backward series of GFCF of this industry at constant prices has been extrapolated at a fixed growth rate of 2% i.e. inter-census growth rates obtained from agriculture and machinery census. A weighted WPI-metal products, machinery & equipment with 2015-16 as the base year, has been used as the deflator.

iii) Livestock

The livestock GFCF is included under the SNA category described as "Cultivated Biological Assets" which yield repeat products. The backward series of GFCF in livestock has been estimated at constant prices by using updated figures of stock of various species e.g. buffalo, cattle, sheep and goats, and others. A weighted-WPI (Milk and Meat) with 2015-16 as the base year has been used to derive GFCF figures at current prices. The imports of live animals have been estimated at current prices through data obtained from the external trade section which have been converted into constant prices through a deflator of the unit value index for imports with 2015-16 as the base year.

iv) Forestry

The backward series of GFCF of the forestry industry has been compiled at constant prices by using inter-census growth of rural dwellings as is being done for forward extrapolation from 2015-16 onwards. A weighted WPI- Metal Products, Machinery & equipment with 2015-16 as the base year has been used to derive GFCF estimates at current prices.

v) Fishing

In the backward series, the GFCF of the fishing industry has been estimated separately for inland and marine fishing activities at constant prices by using the growth of fishing crafts obtained from M/O NFS&R. A weighted WPI- Metal Products, Machinery & equipment with 2015-16 as the base year has been used to derive GFCF estimates at current prices.

3.5.2. Industrial Activities

i) Mining and Quarrying

The GFCF estimates of the mining and quarrying industry are estimated separately for private and public sectors which also include exploration costs. The current price data in the old base has been used to derive the backward estimates of GFCF for this industry. Some adjustments relating to stone crushing and exploration costs have also been made. WPI-Ores and Minerals have been used as a deflator to obtain estimates at constant prices.

ii) Manufacturing

a) Large-Scale Manufacturing (LSM)

The GFCF estimates of the LSM industry are estimated separately for the private and public sectors. The private sector GFCF is estimated using a combination of expenditure & financial approaches. The expenditure approach is applied for 'in production' units, i.e., the units which have started production. The backward estimates of GFCF at current prices for in-production units have been estimated separately for listed and non-listed companies using available data.

The financing approach is applied for the units under construction and is not covered in the category of in-production units. GFCF of under-construction units is estimated through a financing approach i.e. loans disbursed by Development Financing Institutions (DFI's) / Scheduled Banks, Leasing & Modaraba

companies. It is treated as new capacity building and expansion. The backward estimates of GFCF at current prices for under-construction units have been estimated using available data. The public sector estimates of GFCF have been adopted from the old base. WPI-General with 2015-16 as the base year has been used as a deflator to obtain estimates at constant prices

b) Small-Scale Manufacturing

The GFCF estimates of small-scale manufacturing are estimated through fixed growth rates due to the non-availability of any relevant indicator. Therefore, the backward series of GFCF has also been estimated at constant prices by using old base growth rates at constant prices. A weighted WPI-Food, Beverages, Tobacco & Leather have been used to obtain the estimates at current prices.

c) Slaughtering

The backward series of GFCFs of the slaughtering industry has been estimated at constant prices by using the growth rate of meat production. WPI-Meat has been used as a deflator to obtain the GFCF estimates at current prices.

iii) Electricity, Gas, and Water Supply

The backward series of GFCF of electricity and gas industries at current prices in both private as well public sectors is based on annual data provided by the sources which have been converted into constant prices by applying WPI- Metal Product, Machinery & Equipment. The forward extrapolation of GFCF in the water supply industry is made at current prices by applying the growth of financing for fixed investment to private businesses engaged in the industry compiled by SBP. However, the backward series of the water supply industry has been estimated by applying an inter-census fixed growth rate of urban dwellings due to the non-availability of the relevant indicator which is then converted into current prices through WPI-General).

iv) Construction

Under 2015-16 rebasing, the estimates of GFCF for the construction industry in the private sector are compiled at current prices by using the information on imported machinery and equipment for construction purposes. The same indicator has been used to compile the backward series of the GFCF in the private sector. However, the GFCF estimates of the public sector at current prices have been adopted from the old base series at current prices. WPI-Building Material with 2015-16 as the base year has been used to obtain estimates at constant prices.

3.5.3. Services

i) Wholesale and Retail Trade

Under 2015-16 rebasing, the estimates of GFCF of the WRT industry are extrapolated forward at current prices by applying the growth of financing for fixed investment to private businesses engaged in the industry compiled by SBP. However, for the estimation of the backward series of GFCF, the growth rates of the GFCF of the WRT industry at constant prices in the old base have been used due to the non-availability of the relevant indicator. WPI-General has been used to obtain estimates at current prices.

ii) Transportation and Storage

Under 2015-16 rebasing, the estimates of GFCF for the transportation activities in the private sector are compiled at current prices by using the information on imported and domestically produced and sold machinery and equipment for transportation purposes. The same indicator has been used to compile the backward series of the GFCF of transportation activities at current prices in the private sector. However, the

GFCF estimates of the public sector at current prices have been adopted from the old base series at current prices. The GFCF of warehouses and storage activities is extrapolated forward by applying growth of financing for fixed investment to private businesses engaged in the same industry compiled by SBP. However, the backward series of GFCF of storage activities have been compiled at constant prices by using real growth rates of the same industry in the old base due to the non-availability of the relevant indicator. WPI-General with 2015-16 as the base year has been used as a deflator.

iii) Accommodation and Food Services Activities (Hotels & Restaurants)

Under the 2015-16 rebasing, the estimates of GFCF of accommodation and food service activities are extrapolated forward at current prices by applying the growth of financing for fixed investment to private businesses engaged in the industry compiled by SBP. However, for the estimation of the backward series of GFCF, a fixed growth of 4.08% of urban dwellings has been used to derive estimates at constant prices due to the non-availability of the relevant indicator. WPI-General has been used to obtain estimates at current prices.

iv) Information and Communication

In new base estimates, the information industry is comprised of publishing activities, motion pictures, programming and broadcasting activities, and computer programming, consultancy, and information service activities. The forward extrapolation of GFCF of these activities is made at current prices by applying the growth of financing for fixed investment to private businesses engaged in respective activities compiled by the SBP. However, backward series of GFCF of the aforementioned activities have been compiled by using growth rates of telecommunication activities at current prices, which are compiled directly from data provided by Pakistan Telecommunication Company Limited (PTCL), other major telecom companies, and mobile phone companies on annual basis in the private sector. WPI-General has been used as the deflator to obtain estimates at constant prices for 2015-16.

v) Financial and Insurance Activities

The backward series of GFCF of financial and insurance activities at current prices in both private as well public sectors is based on annual data provided by the sources which have been converted into constant prices by using WPI-General as the deflator with 2015-16 as the base year.

vi) Real Estate Activities (Ownership of Dwellings)

The backward series of GFCF of real estate activities including ownership of dwellings has primarily been estimated at constant prices by applying the real growth rates of GFCF of the same industry in old base estimates, which have been converted into current prices by using the WPI-Building Material as a deflator.

vii) Public Administration and Social Security (General Government)

The GFCF in the general government sector is compiled through the expenditure made by Federal, Provincial, district, and local governments and defense services on fixed assets during the year. The GFCF is estimated at current prices regularly on an annual basis through data taken from published budget documents. For the estimation of the backward series of GFCF of the general government, current price estimates from the old base series have been adopted with slight adjustments made for autonomous bodies, which were updated through a fresh census conducted for the 2015-16 rebasing of national accounts. The GFCF of the institutional sector General Government has been further disaggregated into three relevant Pakistan Standard Industrial Classification (PSIC) industries i.e. 84-Public administration and defense, 85-Education, and 86-88 Human health and social work activities. WPI-General has been used as a deflator to obtain estimates at constant prices for 2015-16.

viii) Education

The GFCF of the education industry is compiled separately for the public and private sectors. The backward series of GFCF at constant prices in the private sector including NGOs has been estimated by applying the growth of the GVA of the same industry at constant prices which have been converted into current prices by applying WPI- Building Material. For the public sector, GFCF has been estimated at current prices through budget documents of federal, provincial, and district governments which have been converted into constant prices by using WPI- General as the deflator.

ix) Human Health and Social Work Activities

The GFCF in human health and social work activities is compiled separately for the public and private sectors. The backward series of GFCF at constant prices in the private sector including NGOs has been estimated by applying the growth of GVA of the same industry at constant prices which have been converted into current prices by applying WPI- General. For the public sector, GFCF has been estimated at current prices through budget documents of federal, provincial, and district governments which have been converted into constant prices by using WPI- General as the deflator.

x) Other Private Services

In 2015-16 rebasing, GFCF of other private services is comprised of professional, scientific, and technical activities, administrative and support service activities, arts, entertainment and recreation, and other services activities. The compilation methodology of GFCF for the backward series of these activities is narrated below:-

a) Professional, Scientific and Technical Activities

Like the forward extrapolation, the backward series of GFCF of professional, scientific, and technical activities have been compiled by applying the growth of engineers engaged in the same industry at constant prices which have been converted into current prices through WPI-General as the deflator.

b) Administrative and Support Service Activities

The forward extrapolation of the GFCF of administrative and support service activities is made at current prices through financing for fixed investment compiled by the SBP. However, the backward series of GFCF of the industry has primarily been compiled at constant prices by using the growth rate of cumulative series of enrollment in Secondary and Vocational Institutions due to the non-availability of the relevant indicator. WPI- General has been used as a deflator to convert constant price estimates into current prices.

c) Arts, Entertainment, and Recreation

The GFCF estimates for the arts, entertainment, and recreation industry are extrapolated at current prices by applying the growth of financing for fixed investment to private businesses engaged in the same industry. However, GFCF in the backward series of this industry has been estimated by applying the growth of GFCF at current prices of the motion picture, video and television program production, and sound recording activities. The current price estimates have been converted into constant prices through WPI-General.

d) Other services activities

Other service activities comprised membership Organizations, repair of computers and personal and household goods, and other personal services activities such as washing, dry-cleaning, hair-dressing, etc. The GFCF estimates of these activities in the backward series have been compiled at constant prices by

applying the inter-census growth of urban dwellings having two or more rooms. WPI-General with 2015-16 as the base year has been used as a deflator to obtain estimates at current prices.

3.6. Changes in inventories

In Pakistan, changes in inventories are estimated indirectly as a fixed proportion i.e. 1.6% of GDP. The practice is the same in 2005-06 as well as in 2015-16 rebasing. Consequently, changes in inventories in the estimates of backward series have also been derived separately at current and constant prices by applying the aforementioned method.

3.7. Valuables

In Pakistan, valuables are mainly held by households and have been estimated for the first time in 2015-16 rebasing (Detail is given in PBS publication on 2015-16 rebasing). The extrapolation of figures about valuables is made by using the ratios of valuables to total GDP expenditure at current and constant prices. The same practice has been adopted in the compilation of backward series of valuables.

3.8. Exports and Imports of Goods and Services

Like the regular annual estimates in 2015-16 rebasing, imports and exports of goods and services in backward series have been estimated based on the balance of payment data compiled by the State Bank of Pakistan available in archives from FY 2002-03 onwards. The data on exports and imports of services for FY 1999-00, FY 2000-01, and FY 2001-02 has been estimated as residual of the total of goods, services & income less merchandise trade less investment income obtained from SBP Handbook of Statistics on Pakistan Economy. The imports and exports have been deflated by their respective price indices with 2015-16 as the base year to obtain estimates at constant prices.

Summary table: Expenditure on GDP

The comparison of relative shares of various component of the expenditure on GDP on 2005-06 base and 2015-16 base for selected years is presented in Table 28.

Table 28: Comparison of Components of Expenditure on GDP at current prices (Selected years)

(%)

2005-06 base					
Description/Year	1999-2000	2005-06	2009-10	2015-16	2019-20
Household final consumption expenditure	75.46	77.65	79.72	80.02	79.29
NPISH final consumption expenditure	-	-	-	-	-
General government final consumption expenditure	8.09	10.44	10.32	11.31	12.80
Gross fixed capital formation	15.98	17.73	14.20	14.09	13.73
Changes in inventories	1.60	1.60	1.60	1.60	1.60
Valuables	-	-	-	-	-
Exports of goods and non-factor services	12.12	14.13	13.52	9.15	10.03
Less imports of goods and non-factor services	13.24	21.55	19.35	16.16	17.45
GDP by expenditure	100.00	100.00	100.00	100.00	100.00
2015-16 base					
Description/Year	1999-2000	2005-06	2009-10	2015-16	2019-20
Household final consumption expenditure	74.96	77.23	79.00	79.78	80.49
NPISH final consumption expenditure	1.02	0.87	0.84	0.91	1.03
General government final consumption expenditure	9.92	11.57	10.92	10.61	11.79
Gross fixed capital formation	14.60	16.57	14.25	14.23	13.11
Changes in inventories	1.60	1.60	1.60	1.60	1.60
Valuables	0.11	0.11	0.11	0.10	0.11
Exports of goods and non-factor services	9.63	12.55	12.64	8.74	9.30
Less imports of goods and non-factor services	11.83	20.50	19.35	15.96	17.42
GDP by expenditure	100.00	100.00	100.00	100.00	100.00

Annexures

Annexure 1: Macroeconomic Indicators: Growth Rates from 1951-52 to 2022-23

(%)

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

Annexure 1 (cont.)

Financial Year	(2015-16=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	3.64	-0.09	10.67	2.24	4.95	7.77	7.52
2001-02	2.62	1.26	4.27	1.48	3.68	-0.28	-1.10
2002-03	5.17	3.56	7.41	4.62	5.66	11.72	12.05
2003-04	7.69	3.09	16.34	8.28	7.17	18.19	18.51
2004-05	8.00	6.79	15.73	7.68	8.28	17.69	18.24
2005-06	5.66	1.89	10.44	2.45	8.53	26.34	27.98
2006-07	5.11	3.48	8.06	5.02	5.19	10.53	10.05
2007-08	4.44	0.81	6.14	4.12	4.72	16.25	16.57
2008-09	1.06	3.41	-3.94	0.14	1.84	13.57	13.29
2009-10	2.26	0.31	1.73	1.82	2.63	1.93	0.82
2010-11	3.20	2.71	2.61	3.63	2.86	9.57	8.38
2011-12	3.20	3.23	2.01	2.85	3.48	17.41	17.96
2012-13	3.86	3.14	5.37	2.29	5.13	10.69	10.52
2013-14	3.56	2.42	5.76	3.23	3.82	11.07	10.99
2014-15	3.81	1.78	4.12	3.32	4.20	15.44	16.30
2015-16	4.07	0.41	4.03	2.85	5.03	8.41	8.55
2016-17	4.61	2.22	4.87	3.29	5.62	11.35	11.63
2017-18	6.10	3.88	7.08	6.29	5.95	15.19	15.77
2018-19	3.12	0.94	4.52	0.62	5.00	1.49	0.34
2019-20	-0.94	3.91	-7.80	-0.58	-1.21	3.75	3.16
2020-21	5.77	3.52	10.52	5.58	5.91	15.22	14.93
2021-22 (R)	6.10	4.27	10.86	5.43	6.59	29.05	30.35
2022-23 (P)	0.29	1.55	-3.91	-0.51	0.86	10.20	8.14

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

Annexure 2: National accounts Main Aggregates (at current prices) from 1960-61 to 2022-23

(Rs. Million)

Year	Per capita GNP (MP) Rs.	Excha nge Rate 1US \$ = Rs	Per capit a GNP (MP) \$	GNP (MP)	Net factor income from abroad	GDP (MP)	Indirect Taxes	Subsidies	GDP (FC)	Total Consump tion	Total Investm ent	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

Annexure 2 (cont.)

Financia l Year	(2015-16=100)												
	Per capita GNI (MP) Rs.	Excha nge Rate 1US \$ = Rs	Per capit a GNI (MP) \$	GNI (MP)	Net primary income from abroad	GDP (MP)	Taxes on Product s	Subsidie s on Product s	Total of GVA (BP)	Final Consume tion Expenditu re	Gross Capital Formation	Export of G&NFS	Imports of G&NFS
1999-00	37570	51.77	726	5092518	-54577	5147095	298227	22089	4870957	4420842	839526	495646	608919
2000-01	40273	58.44	689	5592840	-62978	5655818	323284	23703	5356237	4882552	904756	600997	732487
2001-02	42403	61.43	690	6033237	3120	6030117	342029	22804	5710892	5164233	902251	679170	715537
2002-03	45951	58.50	785	6698733	117110	6581623	406509	43402	6218516	5594775	1007967	800631	821750
2003-04	51586	57.57	896	7704956	93279	7611678	459264	46003	7198417	6569763	1191286	869480	1018851
2004-05	56973	59.34	960	8719054	99822	8619232	472394	64172	8211010	7680457	1402042	1056015	1519282
2005-06	62500	59.86	1044	9800412	111341	9689071	573718	73335	9188688	8688152	1771377	1215876	1986334
2006-07	70183	60.63	1158	11276223	110989	11165234	617143	113123	10661214	10048911	1957928	1297967	2139572
2007-08	77746	62.55	1243	12799466	152330	12647137	696900	414383	12364620	11711363	2276032	1501951	2842209
2008-09	88717	78.50	1130	14966056	260358	14705698	919059	261617	14048256	13377357	2584929	1822181	3078770
2009-10	98165	83.80	1171	16968840	461787	16507053	870853	252404	15888604	14980646	2634782	2086033	3194408
2010-11	115264	85.50	1348	20417199	686169	19731030	1046915	418028	19102143	17909048	2886971	2660247	3725235
2011-12	127898	89.24	1433	23215478	870839	22344639	1221540	536551	21659650	20646906	3389455	2653194	4344917
2012-13	139860	96.73	1446	26015304	973135	25042169	1275990	393674	24159853	22926831	3751913	3049510	4686085
2013-14	152940	102.86	1487	29153244	1200429	27952815	1480099	340191	26812907	25764761	4167081	3129310	5108336
2014-15	162969	101.29	1609	31835207	1409327	30425880	1633881	280549	29072548	27665679	4810615	3034851	5085264
2015-16	170924	104.24	1640	34217243	1492194	32725049	2442880	226036	30508205	29875482	5214981	2859095	5224509
2016-17	180401	104.70	1723	37012862	1460043	35552819	2603563	225714	33174970	32956013	5806803	2923015	6133012
2017-18	194181	109.84	1768	40729483	1539673	39189810	2876571	200927	36514166	36600997	6689031	3363191	7463408
2018-19	214695	136.09	1578	45934032	2135631	43798401	3015143	326906	41110164	41443889	6788597	4113048	8547132
2019-20	230349	158.03	1458	50271344	2730935	47540409	3184272	390739	44746876	44356923	7043368	4420573	8280456
2020-21	268403	160.02	1677	59743784	3907559	55836225	4068363	486147	52254009	52705225	8115623	5054072	10038695
2021-22	313337	177.45	1766	71127515	4503951	66623564	4568689	1216301	63271176	64116112	10473182	7026133	14991863
2022-23	388755	247.86	1568	89977329	5319520	84657809	6071378	749190	79335621	79547671	11541114	8530350	14961325

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

**Annexure 3: National Accounts Main Aggregates (at constant prices) from 1960-61 to 2022-23
(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

Annexure 3 (cont.)

Financial Year	(2015-16=100)										
	Per capita GNI Rs.	GNI	Net primary income from abroad	GDP	Taxes on Products	Subsidies on Products	Total of GVA (BP)	Final Consumption on Expenditure	Gross Capital Formation	Export of G&NFS	Imports of G&NFS
1999-00	120870	16383859	-256166	16640026	899579	66630	15807077	15370984	2750112	1376996	2858066
2000-01	122348	16991048	-256563	17247611	933976	68479	16382114	15789823	2881020	1560817	2984049
2001-02	124455	17707862	12707	17695155	946397	63099	16811857	16022952	2820305	1765722	2913824
2002-03	131095	19110937	460012	18650926	1086357	115988	17680556	16585592	3071075	2222112	3227853
2003-04	136785	20430601	319073	20111527	1190433	119242	19040336	18042912	3361722	2192028	3485135
2004-05	142999	21884205	309248	21574957	1170938	159065	20563084	20032141	3671931	2577591	4706706
2005-06	147792	23174633	294038	22880596	1321801	168958	21727753	20935140	4327124	2863978	5245646
2006-07	150433	24170020	272425	23897596	1297188	237776	22838183	21719727	4477887	2951626	5251645
2007-08	150015	24697233	292903	24404330	1359206	808196	23853320	22210050	4637363	3021990	5465073
2008-09	152062	25652056	400273	25251783	1600448	455579	24106914	22655438	4477333	2852296	4733285
2009-10	152144	26299695	668702	25630993	1377395	399218	24652816	23007878	4172535	3076318	4625738
2010-11	153226	27141393	823459	26317934	1456850	581713	25442797	23764325	3862429	3161765	4470585
2011-12	154109	27973083	858351	27114731	1531324	672621	26256028	24642515	4001746	2753084	4282614
2012-13	156920	29188670	889875	28298795	1489924	459678	27268549	25470369	4108512	3005064	4285150
2013-14	160089	30515843	1052148	29463695	1591093	365702	28238304	26760862	4249721	2930450	4477338
2014-15	163479	31934959	1228503	30706456	1680357	288529	29314628	27538352	4782669	2818233	4432797
2015-16	170924	34217243	1492194	32725049	2442880	226036	30508205	29875482	5214981	2859095	5224509
2016-17	173785	35655501	1479873	34175628	2483605	222184	31914207	31860604	5601582	2929753	6216310
2017-18	180034	37762176	1484165	36278011	2610793	192402	33859620	34094464	6153970	3223918	7194340
2018-19	182840	39118552	1934448	37184104	2555422	287359	34916041	35720231	5557257	3648583	7741968
2019-20	179318	39134396	2424050	36710346	2449628	325947	34586665	35135843	5220581	3703874	7349952
2020-21	190382	42377022	3275406	39101616	2894190	375056	36582482	38141041	5429828	3945411	8414664
2021-22	192723	43748211	2806550	40941661	2906476	779803	38814988	40372820	5730996	4179734	9341889
2022-23	191670	44362137	2729639	41632498	3089131	384023	38927390	40641836	4847731	3820130	7677199

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 2022-23

(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
A	Agriculture, Forestry and Fishing (1 to 4)	1306700	1365595	1368995	1457957	1674713	1859557	1978348	2226119	2573865	3203919	3745254	4699861
	<u>1. Crops (i+ii+iii)</u>	<u>632036</u>	<u>627399</u>	<u>597447</u>	<u>635900</u>	<u>747929</u>	<u>820381</u>	<u>829576</u>	<u>963924</u>	<u>1155583</u>	<u>1517297</u>	<u>1706004</u>	<u>2195438</u>
	i) Important Crops	329177	321979	296122	342983	425101	459710	439860	521565	660696	948924	1087320	1429861
	ii) Other Crops	258904	257175	257530	243160	259922	299297	327948	375466	418897	477732	490934	577373
	iii) Cotton Ginning	43954	48244	43795	49757	62907	61375	61769	66893	75990	90641	127750	188204
	2. Livestock	599267	656752	686998	730156	815702	930203	1047613	1162587	1326941	1583083	1912231	2371802
	3. Forestry	48169	54589	58294	67862	85652	83960	70413	69205	58074	64055	79342	93278
	4. Fishing	27228	26855	26255	24038	25430	25012	30746	30403	33268	39484	47677	39342
B	Industrial Activities (1 to 4)	884458	995056	1034701	1144451	1439151	1718074	1957107	2226901	2680630	2990734	3460707	4180311
	1. Mining and Quarrying	109523	132972	150532	176615	216390	216488	285481	331686	375077	459762	549269	547196
	<u>2. Manufacturing (i+ii+iii)</u>	<u>468087</u>	<u>537590</u>	<u>565261</u>	<u>629065</u>	<u>795645</u>	<u>1013842</u>	<u>1222202</u>	<u>1393587</u>	<u>1676541</u>	<u>1844016</u>	<u>2151777</u>	<u>2640236</u>
	i) Large Scale	391308	453039	475458	530308	677586	871600	105972	1208353	1465583	1576860	1810245	2206129
	ii) Small Scale	46837	52614	55981	59860	69489	79742	91668	103220	120580	152458	192339	249117
	iii) Slaughtering	29942	31937	33822	38897	48570	62500	70563	82015	90378	114698	149194	184990
	3 Electricity, Gas and Water supply	168854	175047	168964	179650	244514	245599	166287	166434	218907	231821	297922	505198
	4. Construction	137994	149448	149945	159122	182602	242145	283137	335194	410105	455134	461740	487682
C	Commodity Producing Activities (A+B)	2191158	2360651	2403696	2602408	3113864	3577631	3935455	4453021	5254495	6194653	7205962	8880172
	Services (1 to 10)	2679799	2995586	3307196	3616108	4084553	4633379	5253232	6208194	7110124	7853603	8682643	10221972
	1. Wholesale & Retail trade	794014	874619	900332	986581	1174374	1473204	1767758	200067	2416316	2750622	3150498	3837273
	2. Transportation & Storage	603577	714917	837017	927814	1074333	1112078	1092717	1497592	1576760	1523625	1513782	1694240
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	26316	30001	33764	37687	43302	55092	68477	84494	94702	113752	140710	176774
	4. Information and Communication	80798	90303	101957	119299	141086	169671	170216	193629	251674	286593	303494	348620
	5. Financial and Insurance Activities	95542	112034	130684	120605	116295	179883	274179	333391	390650	476620	468172	532655
	6. Real Estate Activities (OD)	362443	396302	432097	458928	478928	497817	536598	608963	709327	804178	897433	1008091
	7. Public Administration and Social Security (General Government)	256665	272371	302868	333030	363287	399718	471059	506912	548781	551045	657194	803079
	8. Education	118808	126562	142235	164820	189072	202080	243767	264329	303978	349073	383665	429057
	9. Human Health and Social Work Activities	39518	44472	50644	55723	60342	64346	71402	81320	98061	142586	162388	180848
	10. Other Private Services	302118	334005	375598	411621	443534	479490	557060	637498	719877	855509	1005306	1211334
D	GDP (Total of GVA at bp (A+B+C))	4870957	5356237	5710892	6218516	7198417	8211010	9188688	10661214	12364620	14048256	15888604	19102143
E	Taxes	298227	323284	342029	406509	459264	472394	573718	617143	696900	919059	870853	1046915
F	Subsidies	22089	23703	22804	43402	46003	64172	73335	113123	414383	261617	252404	418028
G	GDP at mp (GVA+T-S)	5147095	5655818	6030117	6581623	7611678	8619232	9689071	11165234	12647137	14705698	16507053	19731030
H	Net Primary Income (NPI)	(54577)	(62978)	3120	117110	93279	99822	111341	110989	152330	260358	461787	686169
I	Gross National Income	5092518	5592840	6033237	6698733	7704956	8719054	9800412	11276223	12799466	14966056	16968840	20417199
J	Population (million no.)	135.55	138.87	142.28	145.78	149.36	153.04	156.81	160.67	164.63	168.69	172.86	177.13
K	Per Capita Income	37570	40273	42403	45951	51586	56973	62500	70183	77746	88717	98165	115264
L	Exchange Rate	51.77	58.44	61.43	58.50	57.57	59.34	59.86	60.63	62.55	78.50	83.80	85.50
M	Per capita GNP (MP) (US \$)	726	689	690	785	896	960	1044	1158	1243	1130	1171	1348

Annexure 4 (cont.)

S. No	Sector/Industry	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
A	Agriculture, Forestry and Fishing (1 to 4)	5225561	5936896	6566880	7077924	7306957	7808538	8485078	9056577	10389544	12653889	14891641	19079377
	1. Crops (i+ii+iii)	2051226	2290041	2633471	2547731	2497153	2814824	2997673	3026409	3704256	4720729	5790391	7395539
	i) Important Crops	1259075	1372518	1674251	1521971	1462455	1665727	1724508	1692431	2015035	2730576	3276474	4170087
	ii) Other Crops	628689	757992	781644	866448	912388	995393	1096907	1152141	1502853	1798827	2195520	2951506
	iii) Cotton Ginning	163462	159532	177577	159312	122310	153704	176258	181837	186368	191326	318397	273946
	2. Livestock	3016234	3459424	3717233	4309498	4531885	4681073	5163098	5681368	6301160	7504838	8644011	11141287
	3. Forestry	115070	130495	141033	134536	161737	159493	165288	184508	197771	236197	262797	322165
	4. Fishing	43031	56936	75142	86158	116182	153148	159019	164292	186357	192125	194442	220386
B	Industrial Activities (1 to 4)	4906519	5231567	5832632	5964268	5939635	6434821	7285014	8568673	8837507	10551041	13605790	17198834
	1. Mining and Quarrying	714406	759029	818983	786726	691258	706614	847753	1156829	1230493	1264280	1482046	1731175
	2. Manufacturing (i+ii+iii)	3069947	3335808	3749598	3742822	3668778	4017236	4547093	5513025	5427248	6663895	9178747	11556779
	i) Large Scale	2556200	2757695	3075033	2990836	2841709	3083146	3499175	4266145	4026236	4933633	7048190	8727338
	ii) Small Scale	281836	328826	389099	442268	494949	575507	633065	772543	851921	1038496	1286572	1693309
	iii) Slaughtering	231911	249287	285466	309719	332121	358582	414852	474337	549090	691765	843985	1136132
	3. Electricity, Gas and Water supply	547867	480614	537920	618222	681030	684635	601438	723614	936384	1239849	1093803	1650082
	4. Construction	574299	656116	726132	816498	898569	1026336	1288730	1175205	1243382	1383017	1851194	2260798
C	Commodity Producing Activities (A+B)	10132080	11168464	12399512	13042192	13246592	14243359	15770092	17625250	19227051	23204930	28497431	36278211
	Services (1 to 10)	11527570	12991390	14413396	16030356	17261613	18931611	20744074	23484914	25519825	29049079	34773745	43057410
	1. Wholesale & Retail trade	4420802	4843685	5378156	5419114	5380330	5910874	6647619	7719369	7827884	9587513	13076519	16269048
	2. Transportation & Storage	1640908	2013535	2163837	2979036	3448607	3605358	3413093	3663539	3976118	4668572	4364606	3929660
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	219788	265614	325628	376985	425666	474246	537789	587976	620711	726385	822966	1180653
	4. Information and Communication	420013	451631	470239	522249	610952	672357	687372	764469	929777	1019851	1211656	1403834
	5. Financial and Insurance Activities	565290	510790	571655	580642	530185	573387	673401	904881	1088992	925285	1517135	3535901
	6. Real Estate Activities (OD)	1118242	1246803	1400379	1565349	1735453	1951033	2133802	2356250	2572654	2806288	3083513	3368690
	7. Public Administration and Social Security (General Government)	1001081	1181891	1173126	1322214	1458465	1622405	1891699	2102445	2385741	2567759	2942698	3426941
	8. Education	478376	554084	707019	791832	954556	1031740	1228677	1373330	1494309	1488542	1643797	1965306
	9. Human Health and Social Work Activities	228238	288305	330731	377256	419645	506166	608073	701212	792130	882244	982782	1204825
	10. Other Private Services	1434830	1635051	1892625	2095681	2297754	2584045	2922549	3311443	3831509	4376640	5128073	6772552
D	GDP {Total of GVA at bp (A+B+C)}	21659650	24159853	26812907	29072548	30508205	33174970	36514166	41110164	44746876	52254009	63271176	79335621
E	Taxes	1221540	1275990	1480099	1633881	2442880	2603563	2876571	3015143	3184272	4068363	4568689	6071378
F	Subsidies	536551	393674	340191	280549	226036	225714	200927	326906	390739	486147	1216301	749190
G	GDP at mp (GVA+T-S)	22344639	25042169	27952815	30425880	32725049	35552819	39189810	43798401	47540409	55836225	66623564	84657809
H	Net Primary Income (NPI)	870839	973135	1200429	1409327	1492194	1460043	1539673	2135631	2730935	3907559	4503951	5319520
I	Gross National Income	23215478	26015304	29153244	31835207	34217243	37012862	40729483	45934032	50271344	59743784	71127515	89977329
J	Population (million no.)	181.52	186.01	190.62	195.35	200.19	205.17	209.75	213.95	218.24	222.59	227.00	231.45
K	Per Capita Income (Rupees)	127898	139860	152940	162969	170924	180401	194181	214695	230349	268403	313337	388755
L	Exchange Rate	89.24	96.73	102.86	101.29	104.24	104.70	109.84	136.09	158.03	160.02	177.45	247.86
M	Per capita GNP (MP) (US \$)	1433	1446	1487	1609	1640	1723	1768	1578	1458	1677	1766	1568

Annexure 5: Gross Domestic Product of Pakistan (at constant basic prices of 2015-16) from 1999-2000 to 2022-23

(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
A	Agriculture, Forestry and Fishing (1 to 4)	5018356	5013941	5077194	5258170	5420793	5789117	5898414	6103888	6153614	6363627	6383525	6556680
	<u>1. Crops (i+ii+iii)</u>	<u>2293488</u>	<u>2139846</u>	<u>2072269</u>	<u>2101191</u>	<u>2118617</u>	<u>2392432</u>	<u>2384982</u>	<u>2520257</u>	<u>2461865</u>	<u>2559066</u>	<u>2425068</u>	<u>2475466</u>
	i) Important Crops	1162155	1044428	1002895	1058286	1062471	1276891	1236014	1344199	1278590	1370856	1307739	1356855
	ii) Other Crops	1001746	969277	944773	921308	935125	960653	1002746	1030573	1047324	1051028	972151	984172
	iii) Cotton Ginning	129587	126142	124602	121596	121021	154888	146221	145485	135950	137182	145177	134438
	2. Livestock	2413171	2548791	2680497	2799541	2932166	3068938	3209572	3299845	3429032	3542890	3686173	3833038
	3. Forestry	212614	229154	240137	270243	281092	238325	195784	175604	145686	141449	150392	146902
	4. Fishing	99083	96151	84290	87196	88918	89423	108076	108182	117032	120221	121892	101275
B	Industrial Activities (1 to 4)	2644188	2820244	2872556	3059074	3584870	3908310	4036565	4329874	4709886	4514626	4693059	4921837
	1. Mining and Quarrying	387010	410560	437975	481276	581836	521257	546871	576681	598023	591833	606178	581713
	<u>2. Manufacturing (i+ii+iii)</u>	<u>1405602</u>	<u>1555623</u>	<u>1622116</u>	<u>1742267</u>	<u>2026951</u>	<u>2345750</u>	<u>2590683</u>	<u>2799584</u>	<u>2971396</u>	<u>2854407</u>	<u>2903663</u>	<u>2979531</u>
	i) Large Scale	1117699	1249417	1296092	1395023	1658121	1955447	2167420	2353826	2495528	2344423	2356726	2393527
	ii) Small Scale	142702	153442	165243	177630	190466	203592	224339	239309	259131	281418	306028	332119
	iii) Slaughtering	145200	152764	160781	169614	178364	186711	198924	206449	216738	228566	240908	253885
	3. Electricity, Gas and Water supply	478551	459446	419778	427574	566769	546560	343289	328487	431750	407181	473964	707874
	4. Construction	373025	394615	392687	407957	409314	494743	555722	625122	708717	661205	709254	652719
C	Commodity Producing Activities (A+B)	7662545	7834185	7949750	8317244	9005664	9697427	9934979	10433762	10863500	10878253	11076584	11478517
	Services (1 to 10)	8144532	8547929	8862107	9363312	10034672	10865657	11792774	12404422	12989820	13228662	13576232	13964279
	1. Wholesale & Retail trade	2786055	2921618	2973256	3139553	3455773	3907321	4235836	4452654	4652221	4517382	4569429	4638732
	2. Transportation & Storage	1762192	1869522	1900432	2000902	2090111	2195466	2306455	2489833	2539137	2714827	2791665	2865093
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	148301	163157	179521	197484	217166	238769	262945	275533	289209	303642	318787	334725
	4. Information and Communication	101150	102656	105235	112675	139920	177498	240240	298902	391101	455063	448252	440763
	5. Financial and Insurance Activities	228780	253572	266571	283228	317471	381984	439568	474188	523940	495489	461583	434421
	6. Real Estate Activities (OD)	950329	985934	1020427	1052954	1089219	1125967	1167041	1211486	1258790	1309316	1361721	1417681
	7. Public Administration and Social Security (General Government)	774211	786888	838038	889991	941657	990795	1085283	1065491	1070320	959590	1039458	1117537
	8. Education	354347	364275	394859	435231	476684	491457	581970	588593	632653	691679	687672	717633
	9. Human Health and Social Work Activities	118603	123864	130834	140672	147683	155051	171910	191023	206310	267263	286804	291629
	10. Other Private Services	920565	976444	1052933	1110622	1158988	1201350	1301525	1356717	1426140	1514411	1610860	1706065
D	GDP {Total of GVA at bp (A+B+C)}	15807077	16382114	16811857	17680556	19040336	20563084	21727753	22838183	23853320	24106914	24652816	25442797
E	Taxes	899579	933976	946397	1086357	1190433	1170938	1321801	1297188	1359206	1600448	1377395	1456850
F	Subsidies	66630	68479	63099	115988	119242	159065	168958	237776	808196	455579	399218	581713
G	GDP at mp (GVA+T-S)	16640026	17247611	17695155	18650926	20111527	21574957	22880596	23897596	24404330	25251783	25630993	26317934
H	Net Primary Income (NPI)	(256166)	(256563)	12707	460012	319073	309248	294038	272425	292903	400273	668702	823459
I	Gross National Income	16383859	16991048	17707862	19110937	20430601	21884205	23174633	24170020	24697233	25652056	26299695	27141393
J	Population (million no.)	135.55	138.87	142.28	145.78	149.36	153.04	156.81	160.67	164.63	168.69	172.86	177.13
K	Per Capita Income	120870	122348	124455	131095	136785	142999	147792	150433	150015	152062	152144	153226

Annexure 5 (cont.)

S. No	Sector/Industry	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
A	Agriculture, Forestry and Fishing (1 to 4)	6768528	6981192	7150034	7277452	7306957	7468900	7758432	7831296	8137860	8424041	8783832	8919979
	1. Crops (i+ii+iii)	2506343	2576184	2623259	2597395	2497153	2531438	2648128	2532070	2692121	2849148	3082432	3005611
	i) Important Crops	1455250	1476419	1573025	1542822	1462455	1501621	1565723	1431198	1506263	1593985	1680279	1626473
	ii) Other Crops	897775	951681	904038	898386	912388	901099	943042	977166	1067179	1152009	1289491	1292401
	iii) Cotton Ginning	153318	148083	146196	156186	122310	128718	139363	123706	118679	103154	112662	86737
	2. Livestock	4006298	4138768	4257307	4426704	4531885	4662846	4830324	5006731	5146701	5269009	5387611	5591294
	3. Forestry	150841	160514	162765	140811	161737	157022	160541	172129	177917	183877	191354	198881
	4. Fishing	105046	105726	106703	112542	116182	117594	119439	120366	121121	122007	122435	124193
B	Industrial Activities (1 to 4)	5036634	5094824	5315788	5602641	5939635	6213295	6783864	6800675	6409967	6935438	7409040	7191050
	1. Mining and Quarrying	612310	623161	629518	654371	691258	685104	734818	738791	685844	697669	648842	620252
	2. Manufacturing (i+ii+iii)	3039516	3202692	3387283	3526714	3668778	3847353	4119706	4305977	3970246	4388024	4864350	4673946
	i) Large Scale	2413882	2529947	2667136	2755732	2841709	2957914	3162576	3274235	2906578	3240794	3626559	3337195
	ii) Small Scale	358818	390062	422385	457082	494949	538401	585867	638626	647374	705485	768249	837585
	iii) Slaughtering	266815	282683	297762	313900	332121	351038	371263	393116	416293	441745	469542	499166
	3. Electricity, Gas and Water supply	717928	566095	573706	635858	681030	690618	745548	786907	814703	888101	915951	971170
	4. Construction	666881	702876	725281	785698	898569	990220	1183792	969000	939174	961644	979897	925682
C	Commodity Producing Activities (A+B)	11805163	12076016	12465823	12880093	13246592	13682195	14542296	14631971	14547827	15359479	16192872	16111029
	Services (1 to 10)	14450866	15192533	15772481	16434536	17261613	18232012	19317324	20284070	20038838	21223003	22622116	22816361
	1. Wholesale & Retail trade	4684892	4839817	5054010	5172213	5380330	5727275	6114661	6331734	5998707	6647199	7333356	7006648
	2. Transportation & Storage	2907974	3059426	3192743	3354065	3448607	3589252	3707938	3990773	3634152	3811190	3967157	4154931
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	350967	368513	386660	405596	425666	442789	460952	479936	499522	520024	541222	563447
	4. Information and Communication	513329	538781	528909	570758	610952	675174	703443	763216	868338	953818	1109467	1186342
	5. Financial and Insurance Activities	431637	461759	478651	504669	530185	573828	624079	662149	647435	682988	732007	704013
	6. Real Estate Activities (OD)	1468632	1533340	1593526	1657449	1735453	1798794	1863846	1932853	2006873	2080095	2156942	2237158
	7. Public Administration and Social Security (General Government)	1254957	1380049	1261099	1359824	1458465	1547990	1717130	1776775	1830153	1820093	1853122	1709407
	8. Education	710974	754703	874643	859989	954556	939569	972853	991899	1024760	1012428	1069760	1181454
	9. Human Health and Social Work Activities	320709	347502	367959	394102	419645	470322	497098	535541	568638	585137	600835	651858
	10. Other Private Services	1806795	1908643	2034281	2155870	2297754	2467019	2655324	2819194	2960260	3110031	3258248	3421103
D	GDP {Total of GVA at bp (A+B+C)}	26256028	27268549	28238304	29314628	30508205	31914207	33859620	34916041	34586665	36582482	38814988	38927390
E	Taxes	1531324	1489924	1591093	1680357	2442880	2483605	2610793	2555422	2449628	2894190	2906476	3089131
F	Subsidies	672621	459678	365702	288529	226036	222184	192402	287359	325947	375056	779803	384023
G	GDP at mp (GVA+T-S)	27114731	28298795	29463695	30706456	32725049	34175628	36278011	37184104	36710346	39101616	40941661	41632498
H	Net Primary Income (NPI)	858351	889875	1052148	1228503	1492194	1479873	1484165	1934448	2424050	3275406	2806550	2729639
I	Gross National Income	27973083	29188670	30515843	31934959	34217243	35655501	37762176	39118552	39134396	42377022	43748211	44362137
J	Population (million no.)	181.52	186.01	190.62	195.35	200.19	205.17	209.75	213.95	218.24	222.59	227.00	231.45
K	Per Capita Income	154109	156920	160089	163479	170924	173785	180034	182840	179318	190382	192723	191670

Annexure 6: Real Growth Rates of GDP at constant basic prices of 2015-16 from 1999-2000 to 2022-23

(%)

S. No	Sector/Industry	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
A	Agriculture, Forestry and Fishing (1 to 4)	-0.09	1.26	3.56	3.09	6.79	1.89	3.48	0.81	3.41	0.31	2.71
	1. Crops (i+ii+iii)	<u>-6.70</u>	<u>-3.16</u>	<u>1.40</u>	<u>0.83</u>	<u>12.92</u>	<u>-0.31</u>	<u>5.67</u>	<u>-2.32</u>	<u>3.95</u>	<u>-5.24</u>	<u>2.08</u>
	i) Important Crops	-10.13	-3.98	5.52	0.40	20.18	-3.20	8.75	-4.88	7.22	-4.60	3.76
	ii) Other Crops	-3.24	-2.53	-2.48	1.50	2.73	4.38	2.77	1.63	0.35	-7.50	1.24
	iii) Cotton Ginning	-2.66	-1.22	-2.41	-0.47	27.98	-5.60	-0.50	-6.55	0.91	5.83	-7.40
	2. Livestock	5.62	5.17	4.44	4.74	4.66	4.58	2.81	3.91	3.32	4.04	3.98
	3. Forestry	7.78	4.79	12.54	4.01	-15.21	-17.85	-10.31	-17.04	-2.91	6.32	-2.32
	4. Fishing	-2.96	-12.34	3.45	1.97	0.57	20.86	0.10	8.18	2.72	1.39	-16.91
B	Industrial Activities (1 to 4)	6.66	1.85	6.49	17.19	9.02	3.28	7.27	8.78	-4.15	3.95	4.87
	1. Mining and Quarrying	6.09	6.68	9.89	20.89	-10.41	4.91	5.45	3.70	-1.04	2.42	-4.04
	2. Manufacturing (i+ii+iii)	<u>10.67</u>	<u>4.27</u>	<u>7.41</u>	<u>16.34</u>	<u>15.73</u>	<u>10.44</u>	<u>8.06</u>	<u>6.14</u>	<u>-3.94</u>	<u>1.73</u>	<u>2.61</u>
	i) Large Scale	11.78	3.74	7.63	18.86	17.93	10.84	8.60	6.02	-6.06	0.52	1.56
	ii) Small Scale	7.53	7.69	7.50	7.23	6.89	10.19	6.67	8.28	8.60	8.74	8.53
	iii) Slaughtering	5.21	5.25	5.49	5.16	4.68	6.54	3.78	4.98	5.46	5.40	5.39
	3 Electricity, Gas and Water supply	-3.99	-8.63	1.86	32.55	-3.57	-37.19	-4.31	31.44	-5.69	16.40	49.35
	4. Construction	5.79	-0.49	3.89	0.33	20.87	12.33	12.49	13.37	-6.70	7.27	-7.97
C	Commodity Producing Activities (A+B)	2.24	1.48	4.62	8.28	7.68	2.45	5.02	4.12	0.14	1.82	3.63
	Services (1 to 10)	4.95	3.68	5.66	7.17	8.28	8.53	5.19	4.72	1.84	2.63	2.86
	1. Wholesale & Retail trade	4.87	1.77	5.59	10.07	13.07	8.41	5.12	4.48	-2.90	1.15	1.52
	2. Transportation & Storage	6.09	1.65	5.29	4.46	5.04	5.06	7.95	1.98	6.92	2.83	2.63
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	10.02	10.03	10.01	9.97	9.95	10.13	4.79	4.96	4.99	4.99	5.00
	4. Information and Communication	1.49	2.51	7.07	24.18	26.86	35.35	24.42	30.85	16.35	-1.50	-1.67
	5. Financial and Insurance Activities	10.84	5.13	6.25	12.09	20.32	15.08	7.88	10.49	-5.43	-6.84	-5.88
	6. Real Estate Activities (OD)	3.75	3.50	3.19	3.44	3.37	3.65	3.81	3.90	4.01	4.00	4.11
	7. Public Administration and Social Security (General Government)	1.64	6.50	6.20	5.81	5.22	9.54	-1.82	0.45	-10.35	8.32	7.51
	8. Education	2.80	8.40	10.22	9.52	3.10	18.42	1.14	7.49	9.33	-0.58	4.36
	9. Human Health and Social Work Activities	4.44	5.63	7.52	4.98	4.99	10.87	11.12	8.00	29.54	7.31	1.68
	10. Other Private Services	6.07	7.83	5.48	4.35	3.66	8.34	4.24	5.12	6.19	6.37	5.91
D	GDP {Total of GVA at bp (A+B+C)}	3.64	2.62	5.17	7.69	8.00	5.66	5.11	4.44	1.06	2.26	3.20

Annexure 6 (cont.)

S. No	Sector/Industry	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
A	Agriculture, Forestry and Fishing (1 to 4)	3.23	3.14	2.42	1.78	0.41	2.22	3.88	0.94	3.91	3.52	4.27	1.55
	<u>1. Crops (i+ii+iii)</u>	<u>1.25</u>	<u>2.79</u>	<u>1.83</u>	<u>-0.99</u>	<u>-3.86</u>	<u>1.37</u>	<u>4.61</u>	<u>-4.38</u>	<u>6.32</u>	<u>5.83</u>	<u>8.19</u>	<u>-2.49</u>
	i) Important Crops	7.25	1.45	6.54	-1.92	-5.21	2.68	4.27	-8.59	5.24	5.82	5.41	-3.20
	ii) Other Crops	-8.78	6.00	-5.01	-0.63	1.56	-1.24	4.65	3.62	9.21	7.95	11.93	0.23
	iii) Cotton Ginning	14.04	-3.41	-1.27	6.83	-21.69	5.24	8.27	-11.23	-4.06	-13.08	9.22	-23.01
	2. Livestock	4.52	3.31	2.86	3.98	2.38	2.89	3.59	3.65	2.80	2.38	2.25	3.78
	3. Forestry	2.68	6.41	1.40	-13.49	14.86	-2.92	2.24	7.22	3.36	3.35	4.07	3.93
	4. Fishing	3.72	0.65	0.92	5.47	3.23	1.22	1.57	0.78	0.63	0.73	0.35	1.44
B	Industrial Activities (1 to 4)	2.33	1.16	4.34	5.40	6.01	4.61	9.18	0.25	-5.75	8.20	6.83	-2.94
	1. Mining and Quarrying	5.26	1.77	1.02	3.95	5.64	-0.89	7.26	0.54	-7.17	1.72	-7.00	-4.41
	<u>2. Manufacturing (i+ii+iii)</u>	<u>2.01</u>	<u>5.37</u>	<u>5.76</u>	<u>4.12</u>	<u>4.03</u>	<u>4.87</u>	<u>7.08</u>	<u>4.52</u>	<u>-7.80</u>	<u>10.52</u>	<u>10.86</u>	<u>-3.91</u>
	i) Large Scale	0.85	4.81	5.42	3.32	3.12	4.09	6.92	3.53	-11.23	11.50	11.90	-7.98
	ii) Small Scale	8.04	8.71	8.29	8.21	8.28	8.78	8.82	9.01	1.37	8.98	8.90	9.03
	iii) Slaughtering	5.09	5.95	5.33	5.42	5.80	5.70	5.76	5.89	5.90	6.11	6.29	6.31
	3 Electricity, Gas and Water supply	1.42	-21.15	1.34	10.83	7.10	1.41	7.95	5.55	3.53	9.01	3.14	6.03
	4. Construction	2.17	5.40	3.19	8.33	14.37	10.20	19.55	-18.14	-3.08	2.39	1.90	-5.53
	Commodity Producing Activities (A+B)	2.85	2.29	3.23	3.32	2.85	3.29	6.29	0.62	-0.58	5.58	5.43	-0.51
C	Services (1 to 10)	3.48	5.13	3.82	4.20	5.03	5.62	5.95	5.00	-1.21	5.91	6.59	0.86
	1. Wholesale & Retail trade	1.00	3.31	4.43	2.34	4.02	6.45	6.76	3.55	-5.26	10.81	10.32	-4.46
	2. Transportation & Storage	1.50	5.21	4.36	5.05	2.82	4.08	3.31	7.63	-8.94	4.87	4.09	4.73
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	4.85	5.00	4.92	4.90	4.95	4.02	4.10	4.12	4.08	4.10	4.08	4.11
	4. Information and Communication	16.46	4.96	-1.83	7.91	7.04	10.51	4.19	8.50	13.77	9.84	16.32	6.93
	5. Financial and Insurance Activities	-0.64	6.98	3.66	5.44	5.06	8.23	8.76	6.10	-2.22	5.49	7.18	-3.82
	6. Real Estate Activities (OD)	3.59	4.41	3.93	4.01	4.71	3.65	3.62	3.70	3.83	3.65	3.69	3.72
	7. Public Administration and Social Security (General Government)	12.30	9.97	-8.62	7.83	7.25	6.14	10.93	3.47	3.00	-0.55	1.81	-7.76
	8. Education	-0.93	6.15	15.89	-1.68	11.00	-1.57	3.54	1.96	3.31	-1.20	5.66	10.44
	9. Human Health and Social Work Activities	9.97	8.35	5.89	7.10	6.48	12.08	5.69	7.73	6.18	2.90	2.68	8.49
	10. Other Private Services	5.90	5.64	6.58	5.98	6.58	7.37	7.63	6.17	5.00	5.06	4.77	5.00
D	GDP {Total of GVA at bp (A+B+C)}	3.20	3.86	3.56	3.81	4.07	4.61	6.10	3.12	-0.94	5.77	6.10	0.29

Annexure 7: Sectoral Shares in GDP (at constant basic prices of 2015-16) from 1999-2000 to 2022-23

(%)

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
A.	Agriculture, Forestry and Fishing (1 to 4)	31.75	30.61	30.20	29.74	28.47	28.15	27.15	26.73	25.80	26.40	25.89	25.77
	1. Crops (i+ii+iii)	14.51	13.06	12.33	11.88	11.13	11.63	10.98	11.04	10.32	10.62	9.84	9.73
	i) Important Crops	7.35	6.38	5.97	5.99	5.58	6.21	5.69	5.89	5.36	5.69	5.30	5.33
	ii) Other Crops	6.34	5.92	5.62	5.21	4.91	4.67	4.62	4.51	4.39	4.36	3.94	3.87
	iii) Cotton Ginning	0.82	0.77	0.74	0.69	0.64	0.75	0.67	0.64	0.57	0.57	0.59	0.53
	2. Livestock	15.27	15.56	15.94	15.83	15.40	14.92	14.77	14.45	14.38	14.70	14.95	15.07
	3. Forestry	1.35	1.40	1.43	1.53	1.48	1.16	0.90	0.77	0.61	0.59	0.61	0.58
	4. Fishing	0.63	0.59	0.50	0.49	0.47	0.43	0.50	0.47	0.49	0.50	0.49	0.40
B.	Industrial Activities (1 to 4)	16.73	17.22	17.09	17.30	18.83	19.01	18.58	18.96	19.75	18.73	19.04	19.34
	1. Mining and Quarrying	2.45	2.51	2.61	2.72	3.06	2.53	2.52	2.53	2.51	2.46	2.46	2.29
	2. Manufacturing (i+ii+iii)	8.89	9.50	9.65	9.85	10.65	11.41	11.92	12.26	12.46	11.84	11.78	11.71
	i) Large Scale	7.07	7.63	7.71	7.89	8.71	9.51	9.98	10.31	10.46	9.73	9.56	9.41
	ii) Small Scale	0.90	0.94	0.98	1.00	1.00	0.99	1.03	1.05	1.09	1.17	1.24	1.31
	iii) Slaughtering	0.92	0.93	0.96	0.96	0.94	0.91	0.92	0.90	0.91	0.95	0.98	1.00
	3 Electricity, Gas and Water supply	3.03	2.80	2.50	2.42	2.98	2.66	1.58	1.44	1.81	1.69	1.92	2.78
	4. Construction	2.36	2.41	2.34	2.31	2.15	2.41	2.56	2.74	2.97	2.74	2.88	2.57
C.	Commodity Producing Activities (A+B)	48.48	47.82	47.29	47.04	47.30	47.16	45.72	45.69	45.54	45.13	44.93	45.11
	Services (1 to 10)	51.52	52.18	52.71	52.96	52.70	52.84	54.28	54.31	54.46	54.87	55.07	54.89
	1. Wholesale & Retail trade	17.63	17.83	17.69	17.76	18.15	19.00	19.50	19.50	19.50	18.74	18.54	18.23
	2. Transportation & Storage	11.15	11.41	11.30	11.32	10.98	10.68	10.62	10.90	10.64	11.26	11.32	11.26
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	0.94	1.00	1.07	1.12	1.14	1.16	1.21	1.21	1.21	1.26	1.29	1.32
	4. Information and Communication	0.64	0.63	0.63	0.64	0.73	0.86	1.11	1.31	1.64	1.89	1.82	1.73
	5. Financial and Insurance Activities	1.45	1.55	1.59	1.60	1.67	1.86	2.02	2.08	2.20	2.06	1.87	1.71
	6. Real Estate Activities (OD)	6.01	6.02	6.07	5.96	5.72	5.48	5.37	5.30	5.28	5.43	5.52	5.57
	7. Public Administration and Social Security (General Government)	4.90	4.80	4.98	5.03	4.95	4.82	4.99	4.67	4.49	3.98	4.22	4.39
	8. Education	2.24	2.22	2.35	2.46	2.50	2.39	2.68	2.58	2.65	2.87	2.79	2.82
	9. Human Health and Social Work Activities	0.75	0.76	0.78	0.80	0.78	0.75	0.79	0.84	0.86	1.11	1.16	1.15
	10. Other Private Services	5.82	5.96	6.26	6.28	6.09	5.84	5.99	5.94	5.98	6.28	6.53	6.71
D.	GDP {Total of GVA at bp (A+B+C)}	100.00											

Annexure 7 (cont.)

S. No	Sector/Industry	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
A.	Agriculture, Forestry and Fishing (1 to 4)	25.78	25.60	25.32	24.83	23.95	23.40	22.91	22.43	23.53	23.03	22.63	22.91
	1. Crops (i+ii+iii)	<u>9.55</u>	<u>9.45</u>	<u>9.29</u>	<u>8.86</u>	<u>8.19</u>	<u>7.93</u>	<u>7.82</u>	<u>7.25</u>	<u>7.78</u>	<u>7.79</u>	<u>7.94</u>	<u>7.72</u>
	i) Important Crops	5.54	5.41	5.57	5.26	4.79	4.71	4.62	4.10	4.36	4.36	4.33	4.18
	ii) Other Crops	3.42	3.49	3.20	3.06	2.99	2.82	2.79	2.80	3.09	3.15	3.32	3.32
	iii) Cotton Ginning	0.58	0.54	0.52	0.53	0.40	0.40	0.41	0.35	0.34	0.28	0.29	0.22
	2. Livestock	15.26	15.18	15.08	15.10	14.85	14.61	14.27	14.34	14.88	14.40	13.88	14.36
	3. Forestry	0.57	0.59	0.58	0.48	0.53	0.49	0.47	0.49	0.51	0.50	0.49	0.51
	4. Fishing	0.40	0.39	0.38	0.38	0.38	0.37	0.35	0.34	0.35	0.33	0.32	0.32
B.	Industrial Activities (1 to 4)	19.18	18.68	18.82	19.11	19.47	19.47	20.04	19.48	18.53	18.96	19.09	18.47
	1. Mining and Quarrying	2.33	2.29	2.23	2.23	2.27	2.15	2.17	2.12	1.98	1.91	1.67	1.59
	2. Manufacturing (i+ii+iii)	<u>11.58</u>	<u>11.75</u>	<u>12.00</u>	<u>12.03</u>	<u>12.03</u>	<u>12.06</u>	<u>12.17</u>	<u>12.33</u>	<u>11.48</u>	<u>11.99</u>	<u>12.53</u>	<u>12.01</u>
	i) Large Scale	9.19	9.28	9.45	9.40	9.31	9.27	9.34	9.38	8.40	8.86	9.34	8.57
	ii) Small Scale	1.37	1.43	1.50	1.56	1.62	1.69	1.73	1.83	1.87	1.93	1.98	2.15
	iii) Slaughtering	1.02	1.04	1.05	1.07	1.09	1.10	1.10	1.13	1.20	1.21	1.21	1.28
	3 Electricity, Gas and Water supply	2.73	2.08	2.03	2.17	2.23	2.16	2.20	2.25	2.36	2.43	2.36	2.49
	4. Construction	2.54	2.58	2.57	2.68	2.95	3.10	3.50	2.78	2.72	2.63	2.52	2.38
C.	Commodity Producing Activities (A+B)	44.96	44.29	44.15	43.94	43.42	42.87	42.95	41.91	42.06	41.99	41.72	41.39
	Services (1 to 10)	55.04	55.71	55.85	56.06	56.58	57.13	57.05	58.09	57.94	58.01	58.28	58.61
	1. Wholesale & Retail trade	17.84	17.75	17.90	17.64	17.64	17.95	18.06	18.13	17.34	18.17	18.89	18.00
	2. Transportation & Storage	11.08	11.22	11.31	11.44	11.30	11.25	10.95	11.43	10.51	10.42	10.22	10.67
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	1.34	1.35	1.37	1.38	1.40	1.39	1.36	1.37	1.44	1.42	1.39	1.45
	4. Information and Communication	1.96	1.98	1.87	1.95	2.00	2.12	2.08	2.19	2.51	2.61	2.86	3.05
	5. Financial and Insurance Activities	1.64	1.69	1.70	1.72	1.74	1.80	1.84	1.90	1.87	1.87	1.89	1.81
	6. Real Estate Activities (OD)	5.59	5.62	5.64	5.65	5.69	5.64	5.50	5.54	5.80	5.69	5.56	5.75
	7. Public Administration and Social Security (General Government)	4.78	5.06	4.47	4.64	4.78	4.85	5.07	5.09	5.29	4.98	4.77	4.39
	8. Education	2.71	2.77	3.10	2.93	3.13	2.94	2.87	2.84	2.96	2.77	2.76	3.04
	9. Human Health and Social Work Activities	1.22	1.27	1.30	1.34	1.38	1.47	1.47	1.53	1.64	1.60	1.55	1.67
	10. Other Private Services	6.88	7.00	7.20	7.35	7.53	7.73	7.84	8.07	8.56	8.50	8.39	8.79
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

Annexure 8: Sectoral Shares in GDP (at current basic prices) from 1999-2000 to 2022-23

(%)

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
A.	Agriculture, Forestry and Fishing (1 to 4)	26.83	25.50	23.97	23.45	23.27	22.65	21.53	20.88	20.82	22.81	23.57	24.60
	1. Crops (i+ii+iii)	<u>12.98</u>	<u>11.71</u>	<u>10.46</u>	<u>10.23</u>	<u>10.39</u>	<u>9.99</u>	<u>9.03</u>	<u>9.04</u>	<u>9.35</u>	<u>10.80</u>	<u>10.74</u>	<u>11.49</u>
	i) Important Crops	6.76	6.01	5.19	5.52	5.91	5.60	4.79	4.89	5.34	6.75	6.84	7.49
	ii) Other Crops	5.32	4.80	4.51	3.91	3.61	3.65	3.57	3.52	3.39	3.40	3.09	3.02
	iii) Cotton Ginning	0.90	0.90	0.77	0.80	0.87	0.75	0.67	0.63	0.61	0.65	0.80	0.99
	2. Livestock	12.30	12.26	12.03	11.74	11.33	11.33	11.40	10.90	10.73	11.27	12.04	12.42
	3. Forestry	0.99	1.02	1.02	1.09	1.19	1.02	0.77	0.65	0.47	0.46	0.50	0.49
	4. Fishing	0.56	0.50	0.46	0.39	0.35	0.30	0.33	0.29	0.27	0.28	0.30	0.21
B.	Industrial Activities (1 to 4)	18.16	18.58	18.12	18.40	19.99	20.92	21.30	20.89	21.68	21.29	21.78	21.88
	1. Mining and Quarrying	2.25	2.48	2.64	2.84	3.01	2.64	3.11	3.11	3.03	3.27	3.46	2.86
	2. Manufacturing (i+ii+iii)	<u>9.61</u>	<u>10.04</u>	<u>9.90</u>	<u>10.12</u>	<u>11.05</u>	<u>12.35</u>	<u>13.30</u>	<u>13.07</u>	<u>13.56</u>	<u>13.13</u>	<u>13.54</u>	<u>13.82</u>
	i) Large Scale	8.03	8.46	8.33	8.53	9.41	10.62	11.54	11.33	11.85	11.22	11.39	11.55
	ii) Small Scale	0.96	0.98	0.98	0.96	0.97	0.97	1.00	0.97	0.98	1.09	1.21	1.30
	iii) Slaughtering	0.61	0.60	0.59	0.63	0.67	0.76	0.77	0.77	0.73	0.82	0.94	0.97
	3. Electricity, Gas and Water supply	3.47	3.27	2.96	2.89	3.40	2.99	1.81	1.56	1.77	1.65	1.88	2.64
	4. Construction	2.83	2.79	2.63	2.56	2.54	2.95	3.08	3.14	3.32	3.24	2.91	2.55
	Commodity Producing Activities (A+B)	44.98	44.07	42.09	41.85	43.26	43.57	42.83	41.77	42.50	44.10	45.35	46.49
C.	Services (1 to 10)	55.02	55.93	57.91	58.15	56.74	56.43	57.17	58.23	57.50	55.90	54.65	53.51
	1. Wholesale & Retail trade	16.30	16.33	15.77	15.87	16.31	17.94	19.24	18.76	19.54	19.58	19.83	20.09
	2. Transportation & Storage	12.39	13.35	14.66	14.92	14.92	13.54	11.89	14.05	12.75	10.85	9.53	8.87
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	0.54	0.56	0.59	0.61	0.60	0.67	0.75	0.79	0.77	0.81	0.89	0.93
	4. Information and Communication	1.66	1.69	1.79	1.92	1.96	2.07	1.85	1.82	2.04	2.04	1.91	1.83
	5. Financial and Insurance Activities	1.96	2.09	2.29	1.94	1.62	2.19	2.98	3.13	3.16	3.39	2.95	2.79
	6. Real Estate Activities (OD)	7.44	7.40	7.57	7.38	6.65	6.06	5.84	5.71	5.74	5.72	5.65	5.28
	7. Public Administration and Social Security (General Government)	5.27	5.09	5.30	5.36	5.05	4.87	5.13	4.75	4.44	3.92	4.14	4.20
	8. Education	2.44	2.36	2.49	2.65	2.63	2.46	2.65	2.48	2.46	2.48	2.41	2.25
	9. Human Health and Social Work Activities	0.81	0.83	0.89	0.90	0.84	0.78	0.78	0.76	0.79	1.01	1.02	0.95
	10. Other Private Services	6.20	6.24	6.58	6.62	6.16	5.84	6.06	5.98	5.82	6.09	6.33	6.34
D.	GDP {Total of GVA at bp (A+B+C)}	100.00											

Annexure 8 (cont.)

S. No	Sector/Industry	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
A.	Agriculture, Forestry and Fishing (1 to 4)	24.13	24.57	24.49	24.35	23.95	23.54	23.24	22.03	23.22	24.22	23.54	24.05
	1. Crops (i+ii+iii)	<u>9.47</u>	<u>9.48</u>	<u>9.82</u>	<u>8.76</u>	<u>8.19</u>	<u>8.48</u>	<u>8.21</u>	<u>7.36</u>	<u>8.28</u>	<u>9.03</u>	<u>9.15</u>	<u>9.32</u>
	i) Important Crops	5.81	5.68	6.24	5.24	4.79	5.02	4.72	4.12	4.50	5.23	5.18	5.26
	ii) Other Crops	2.90	3.14	2.92	2.98	2.99	3.00	3.00	2.80	3.36	3.44	3.47	3.72
	iii) Cotton Ginning	0.75	0.66	0.66	0.55	0.40	0.46	0.48	0.44	0.42	0.37	0.50	0.35
	2. Livestock	13.93	14.32	13.86	14.82	14.85	14.11	14.14	13.82	14.08	14.36	13.66	14.04
	3. Forestry	0.53	0.54	0.53	0.46	0.53	0.48	0.45	0.45	0.44	0.45	0.42	0.41
	4. Fishing	0.20	0.24	0.28	0.30	0.38	0.46	0.44	0.40	0.42	0.37	0.31	0.28
B.	Industrial Activities (1 to 4)	22.65	21.65	21.75	20.52	19.47	19.40	19.95	20.84	19.75	20.19	21.50	21.68
	1. Mining and Quarrying	3.30	3.14	3.05	2.71	2.27	2.13	2.32	2.81	2.75	2.42	2.34	2.18
	2. Manufacturing (i+ii+iii)	<u>14.17</u>	<u>13.81</u>	<u>13.98</u>	<u>12.87</u>	<u>12.03</u>	<u>12.11</u>	<u>12.45</u>	<u>13.41</u>	<u>12.13</u>	<u>12.75</u>	<u>14.51</u>	<u>14.57</u>
	i) Large Scale	11.80	11.41	11.47	10.29	9.31	9.29	9.58	10.38	9.00	9.44	11.14	11.00
	ii) Small Scale	1.30	1.36	1.45	1.52	1.62	1.73	1.73	1.88	1.90	1.99	2.03	2.13
	iii) Slaughtering	1.07	1.03	1.06	1.07	1.09	1.08	1.14	1.15	1.23	1.32	1.33	1.43
	3. Electricity, Gas and Water supply	2.53	1.99	2.01	2.13	2.23	2.06	1.65	1.76	2.09	2.37	1.73	2.08
	4. Construction	2.65	2.72	2.71	2.81	2.95	3.09	3.53	2.86	2.78	2.65	2.93	2.85
C.	Commodity Producing Activities (A+B)	46.78	46.23	46.24	44.86	43.42	42.93	43.19	42.87	42.97	44.41	45.04	45.73
	Services (1 to 10)	53.22	53.77	53.76	55.14	56.58	57.07	56.81	57.13	57.03	55.59	54.96	54.27
	1. Wholesale & Retail trade	20.41	20.05	20.06	18.64	17.64	17.82	18.21	18.78	17.49	18.35	20.67	20.51
	2. Transportation & Storage	7.58	8.33	8.07	10.25	11.30	10.87	9.35	8.91	8.89	8.93	6.90	4.95
	3. Accommodation and Food Services Activities (Hotels & Restaurants)	1.01	1.10	1.21	1.30	1.40	1.43	1.47	1.43	1.39	1.39	1.30	1.49
	4. Information and Communication	1.94	1.87	1.75	1.80	2.00	2.03	1.88	1.86	2.08	1.95	1.92	1.77
	5. Financial and Insurance Activities	2.61	2.11	2.13	2.00	1.74	1.73	1.84	2.20	2.43	1.77	2.40	4.46
	6. Real Estate Activities (OD)	5.16	5.16	5.22	5.38	5.69	5.88	5.84	5.73	5.75	5.37	4.87	4.25
	7. Public Administration and Social Security (General Government)	4.62	4.89	4.38	4.55	4.78	4.89	5.18	5.11	5.33	4.91	4.65	4.32
	8. Education	2.21	2.29	2.64	2.72	3.13	3.11	3.36	3.34	3.34	2.85	2.60	2.48
	9. Human Health and Social Work Activities	1.05	1.19	1.23	1.30	1.38	1.53	1.67	1.71	1.77	1.69	1.55	1.52
	10. Other Private Services	6.62	6.77	7.06	7.21	7.53	7.79	8.00	8.06	8.56	8.38	8.10	8.54
D.	GDP {Total of GVA at bp (A+B+C)}	100.00											

Annexure 9: Expenditure on Gross Domestic Product at Current Prices from 1999-2000 to 2022-23

(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
Household final consumption expenditure	3858189	4337323	4522052	4886736	5758860	6812136	7482549	8793295	10266053	11559098	13040094	15732043
NPISH final consumption expenditure	52265	55678	61566	67567	73576	78717	84714	94153	106978	122866	138188	159193
General government final consumption expenditure	510387	489551	580614	640472	737327	789604	1120889	1161463	1338332	1695394	1802365	2017811
Gross fixed capital formation	751511	808042	799136	895421	1061127	1254654	1605694	1767003	2059766	2333461	2352511	2549570
Changes in inventories	82354	90493	96482	105306	121787	137908	155025	178644	202354	235291	264113	315696
Valuables	5662	6221	6633	7240	8373	9481	10658	12282	13912	16176	18158	21704
Exports of goods and non-factor services	495646	600997	679170	800631	869480	1056015	1215876	1297967	1501951	1822181	2086033	2660247
Less imports of goods and non-factor services	608919	732487	715537	821750	1018851	1519282	1986334	2139572	2842209	3078770	3194408	3725235
GDP by expenditure	5147095	5655818	6030117	6581623	7611678	8619232	9689071	11165234	12647137	14705698	16507053	19731030

Annexure 9 (cont.)

Description/Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
Household final consumption expenditure	18203589	20141465	22717649	24416016	26106974	28800377	31906384	36301307	38265131	46061461	56528473	70631467
NPISH final consumption expenditure	186667	216089	244177	271285	296722	332379	386231	434362	487348	541106	593948	675069
General government final consumption expenditure	2256651	2569278	2802934	2978378	3471786	3823258	4308381	4708220	5604444	6102658	6993691	8241135
Gross fixed capital formation	3007362	3323692	3689088	4290332	4657149	5198850	6018885	6039644	6230427	7160824	9333919	10093465
Changes in inventories	357514	400675	447245	486814	523601	568845	627037	700774	760647	893380	1065977	1354525
Valuables	24579	27546	30748	33468	34231	39108	43109	48178	52294	61420	73286	93124
Exports of goods and non-factor services	2653194	3049510	3129310	3034851	2859095	2923015	3363191	4113048	4420573	5054072	7026133	8530350
Less imports of goods and non-factor services	4344917	4686085	5108336	5085264	5224509	6133012	7463408	8547132	8280456	10038695	14991863	14961325
GDP by expenditure	22344639	25042169	27952815	30425880	32725049	35552819	39189810	43798401	47540409	55836225	66623564	84657809

Annexure 10: Expenditure on Gross Domestic Product at Constant Prices from 1999-2000 to 2022-23

(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
Household final consumption expenditure	13671826	14215931	14246378	14716159	15927131	17886931	18184074	19112458	19426988	19544835	19981481	20790707
NPISH final consumption expenditure	157653	160855	170354	180566	190712	195118	195174	197903	208646	213959	218567	221527
General government final consumption expenditure	1541505	1413037	1606220	1688866	1925068	1950092	2555892	2409366	2574416	2896645	2807831	2752091
Gross fixed capital formation	2465567	2586086	2517718	2752144	3017815	3303000	3935866	4069238	4220049	4045528	3734245	3412393
Changes in inventories	266240	275962	283122	298415	321784	345199	366090	382362	390469	404029	410096	421087
Valuables	18304	18972	19465	20516	22123	23732	25169	26287	26845	27777	28194	28950
Exports of goods and non-factor services	1376996	1560817	1765722	2222112	2192028	2577591	2863978	2951626	3021990	2852296	3076318	3161765
Less imports of goods and non-factor services	2858066	2984049	2913824	3227853	3485135	4706706	5245646	5251645	5465073	4733285	4625738	4470585
GDP by expenditure	16640026	17247611	17695155	18650926	20111527	21574957	22880596	23897596	24404330	25251783	25630993	26317934

Annexure 10 (cont.)

Description/Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
Household final consumption expenditure	21607156	22234152	23505265	24210748	26106975	27915885	29915812	31583262	30674157	33595078	35889280	36490222
NPISH final consumption expenditure	234006	252319	262488	279002	296722	317125	352015	370679	374912	384937	377854	341047
General government final consumption expenditure	2801353	2983898	2993109	3048602	3471786	3627594	3826636	3766290	4086774	4161026	4105687	3810567
Gross fixed capital formation	3538085	3624603	3745892	4257588	4657149	5017178	5533617	4921409	4592834	4761190	5030894	4135815
Changes in inventories	433836	452781	471419	491303	523601	546810	580448	594946	587366	625626	655067	666120
Valuables	29826	31129	32410	33777	34231	37593	39906	40903	40381	43012	45036	45796
Exports of goods and non-factor services	2753084	3005064	2930450	2818233	2859095	2929753	3223918	3648583	3703874	3945411	4179734	3820130
Less imports of goods and non-factor services	4282614	4285150	4477338	4432797	5224509	6216310	7194340	7741968	7349952	8414664	9341889	7677199
GDP by expenditure	27114731	28298795	29463695	30706456	32725049	34175628	36278011	37184104	36710346	39101616	40941661	41632498

Annexure 11: Gross Fixed Capital Formation, Private, Public & General Government Sectors, by Economic Activity, [at current market prices] from 1999-2000 to 2022-23

(Rs. Million)

Sr. No.	Industries/Sectors	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
A.	Total GFCF(A+B+C)	751511	808042	799136	895421	1061127	1254654	1605694	1767003	2059766	2333461	2352511	2549570
A.	Private Sector	530019	574161	633329	723172	841576	984892	1256759	1344761	1548706	1750808	1781573	1948560
B.	Public Sector	159700	170692	102572	91877	103299	123078	149835	155070	170856	146117	159518	153745
C.	General Government	61792	63188	63236	80373	116251	146684	199100	267172	340204	436537	411420	447266
	Private & Public Sector (A+B)	689719	744853	735900	815048	944875	1107969	1406593	1499831	1719562	1896925	1941091	2102305
	(Sector wise total)												
1	Agriculture, forestry and fishing	178847	178013	187506	200019	222088	249715	275107	297228	331561	403760	466090	555388
2	Mining and quarrying	19099	23033	26738	80416	52480	18728	30042	40865	33507	50698	66063	48621
3	Manufacturing	120178	135820	148667	145265	183752	219072	298925	282402	328195	374469	295540	292581
	i. Large Scale	112331	127084	139017	134355	170635	203841	281328	262313	304217	345014	258293	243309
	ii. Small Scale (including Slaughtering)	7847	8736	9650	10910	13117	15231	17597	20089	23977	29455	37247	49272
4	Electricity, gas, and water supply	79740	81073	44486	55862	38447	48839	63595	57043	75889	114322	110590	144744
5	Construction	15165	14063	16815	6274	9069	20138	27088	34929	35137	47973	33244	23816
6	Wholesale and retail trade	26469	29168	30741	34279	40819	49532	59753	67618	81730	94254	109239	135134
7	Accommodation and food service activities (Hotels and Restaurants)	11024	11934	12781	13908	15570	17252	19779	22008	26203	32431	38440	48499
8	Transportation and storage	58912	72697	64835	66913	104123	129890	169229	154780	167796	142976	186838	193984
9	Information and communication	22319	30471	21682	15418	44137	89417	166525	212540	262040	178003	168358	103667
10	Financial and insurance activities	8380	7101	10254	11332	14256	15905	20463	27485	33839	34989	30002	27933
11	Real estate activities (Ownership of Dwellings)	103737	110481	116065	123071	145817	166565	181368	198215	222394	275151	270931	323752
12	Public Administration and Social Security (General Government)	50868	52017	52057	66164	95700	120753	163902	232436	270800	359162	340511	370178
13	Education	24228	26007	27517	32435	42834	49198	56444	63119	77376	91044	90197	101647
14	Human health and social work activities	12122	13054	13670	16225	20686	24662	31237	29043	56503	64030	61797	72141
15	Other Private Services	20424	23108	25323	27841	31349	34987	42237	47290	56797	70199	84673	107488

Annexure 11 (cont.)

Sr. No.	Industries/Sectors	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
	Total GFCF(A+B+C)	3007362	3323692	3689088	4290332	4657149	5198850	6018885	6039644	6230427	7160824	9333919	10093465
A.	Private Sector	2245994	2524774	2866970	3235480	3537220	3745750	4211187	4665930	4885372	5502024	7023740	7457518
B.	Public Sector	162104	292145	227612	305802	252053	363686	448598	475183	349556	417382	512117	471565
C.	General Government	599264	506773	594507	749050	867876	1089414	1359100	898531	995499	1241418	1798062	2164382
	Private & Public Sector (A+B) (Sector wise total)	2408098	2816919	3094581	3541282	3789273	4109436	4659785	5141113	5234928	5919406	7535857	7929083
1	Agriculture, forestry and fishing	661546	745766	779362	885148	904250	965529	1050711	1138639	1251854	1523084	1815095	2226308
2	Mining and quarrying	61472	51243	80553	87818	122166	100586	71969	73327	90144	62148	66754	62458
3	Manufacturing	323126	416260	431221	484639	723845	755058	810934	891741	870779	958082	1237633	844096
	i. Large Scale	266845	351715	357556	403087	633494	649780	694141	749597	699962	772726	1016931	624148
	ii. Small Scale (including Slaughtering)	56281	64545	73665	81552	90351	105278	116793	142144	170817	185356	220702	219948
4	Electricity, gas, and water supply	149597	181110	125607	240269	201651	191259	387511	461987	314993	336502	348746	327828
5	Construction	32651	37563	62381	52558	64882	111621	84984	44489	50961	50710	87494	77451
6	Wholesale and retail trade	151744	168683	191134	195579	202799	231144	301783	430297	408671	458047	470201	382192
7	Accommodation and food service activities (Hotels and Restaurants)	55745	62285	70111	72741	74922	92968	85589	85772	57994	57050	58629	52847
8	Transportation and storage	211302	289424	271493	371233	416691	492166	610512	558132	364876	604019	866041	701439
9	Information and communication	99348	113497	249769	252862	158036	157208	143185	155142	368840	231062	416566	277035
10	Financial and insurance activities	35176	46406	39608	48237	56520	65697	61650	72956	78146	95648	118537	187051
11	Real estate activities (Ownership of Dwellings)	386564	435686	486036	524307	523819	562916	613462	709639	803990	901130	1230687	1673369
12	Public Administration and Social Security (General Government)	487649	427367	514388	624622	750084	967642	1229418	804220	888918	1070774	1634531	1923075
13	Education	136705	118919	145952	168035	179991	182153	190376	198774	217294	271247	311680	465325
14	Human health and social work activities	88672	87052	75624	107012	92531	108840	128714	118991	146936	181159	230726	296943
15	Other Private Services	126065	142432	165847	175272	184962	214063	248085	295537	316032	360161	440599	596048

Annexure 12: Gross Fixed Capital Formation: Private Sector by Economic Activity [at current market prices] from 1999-2000 to 2022-23

(Rs. Million)

Sr. No.	Industries/Sectors	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
A.	Private Sector	530019	574161	633329	723172	841576	984892	1256759	1344761	1548706	1750808	1781573	1948560
1	Agriculture, forestry and fishing	175926	177333	183538	198631	221979	249493	274829	296965	331260	403458	465763	555042
	Crops	66641	64190	64975	72788	79188	84334	90585	92373	97116	121126	133870	150021
	Cotton Ginning	313	327	356	359	399	435	437	460	519	577	600	705
	Livestock	94974	98453	102640	109418	125104	146122	165408	184881	212171	258279	307248	377299
	Forestry	407	426	465	470	522	571	574	605	684	762	793	934
	Fishing	13590	13939	15102	15596	16765	18030	17825	18647	20770	22713	23253	26082
2	Mining and quarrying	17380	16155	19247	70608	49338	13688	23909	20386	23153	36038	53399	36470
3	Manufacturing	<u>98991</u>	<u>121927</u>	<u>147269</u>	<u>143865</u>	<u>180342</u>	<u>216932</u>	<u>295316</u>	<u>279577</u>	<u>327027</u>	<u>372319</u>	<u>294108</u>	<u>289967</u>
	i. Large Scale	91144	113191	137619	132955	167225	201701	277719	259488	303049	342864	256861	240695
	ii. Small Scale (including Slaughtering)	7847	8736	9650	10910	13117	15231	17597	20089	23977	29455	37247	49272
4	Electricity, gas, and water supply	7983	9062	14614	13036	7890	9735	12137	13342	20327	49311	32650	64890
5	Construction	12614	11991	13586	3530	5811	16042	20713	22081	20708	33248	23295	16026
6	Wholesale and retail trade	26469	29168	30741	34279	40819	49532	59753	67618	81730	94254	109239	135134
7	Accommodation and food service activities (Hotels and Restaurants)	11024	11934	12781	13908	15570	17252	19779	22008	26203	32431	38440	48499
8	Transportation and storage	22301	25164	29089	46408	63941	83377	117058	113091	119457	120410	155989	164449
9	Information and communication	2717	5022	2544	4440	22624	64514	138594	183302	224895	156566	146323	85501
10	Financial and insurance activities	5028	4925	8524	9104	13128	14845	18585	23458	30281	29723	25680	24644
11	Real estate activities (Ownership of Dwellings)	103737	110481	116065	123071	145817	166565	181368	198215	222394	275151	270931	323752
12	Education	19020	20682	22188	25661	33037	36836	39664	42819	46869	55725	54842	63212
13	Human health and social work activities	6406	7209	7820	8790	9932	11093	12819	14607	17605	21973	26243	33488
14	Other Private Services	20424	23108	25323	27841	31349	34987	42237	47290	56797	70199	84673	107488

Annexure 12 (cont.)

Sr. No.	Industries/Sectors	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
A.	Private Sector	2245994	2524774	2866970	3235480	3537220	3745750	4211187	4665930	4885372	5502024	7023740	7457518
1	Agriculture, forestry and fishing	661131	745632	779231	884988	904045	965346	1050469	1138425	1251552	1522821	1814781	2225449
	Crops	156473	173954	167033	193793	176622	212925	233258	237615	240929	314441	398698	410885
	Cotton Ginning	857	912	983	1029	1042	1097	1150	1274	1487	1748	2128	3464
	Livestock	471455	536959	575065	652852	689165	712747	776275	855920	958893	1148439	1344047	1698811
	Forestry	1137	1162	1309	1373	1392	1468	1542	1712	2000	2355	2872	4683
	Fishing	31209	32646	34841	35941	35824	37109	38244	41904	48243	55838	67036	107606
2	Mining and quarrying	43398	36040	58620	56115	94113	38057	47723	55204	65017	36853	42143	45214
3	Manufacturing	<u>320242</u>	<u>410482</u>	<u>425367</u>	<u>482879</u>	<u>722512</u>	<u>726853</u>	<u>802299</u>	<u>889976</u>	<u>862159</u>	<u>943687</u>	<u>1220769</u>	<u>836059</u>
	i. Large Scale	263961	345937	351702	401327	632161	621575	685506	747832	691342	758331	1000067	616111
	ii. Small Scale (including Slaughtering)	56281	64545	73665	81552	90351	105278	116793	142144	170817	185356	220702	219948
4	Electricity, gas, and water supply	78225	27945	41536	77042	46543	44640	126854	86747	78541	71544	102991	126607
5	Construction	21274	21562	42461	42986	59704	105809	78378	43519	46805	40935	59687	45793
6	Wholesale and retail trade	151744	168683	191134	195579	202799	231144	301783	430297	408671	458047	470201	382192
7	Accommodation and food service activities (Hotels and Restaurants)	55745	62285	70111	72741	74922	92968	85589	85772	57994	57050	58629	52847
8	Transportation and storage	180816	218541	219732	316869	389786	422421	495270	515888	340198	547769	794658	559065
9	Information and communication	78862	93094	210756	213380	129729	123564	116808	126389	326496	196051	315724	228304
10	Financial and insurance activities	28165	35828	34679	42702	49556	48748	55057	65082	70269	84213	93996	165610
11	Real estate activities (Ownership of Dwellings)	386564	435686	486036	524307	523819	562916	613462	709639	803990	901130	1230687	1673369
12	Education	74595	82271	91246	97921	99588	108127	121144	139770	160611	169452	229896	310622
13	Human health and social work activities	39168	44295	50212	52698	55142	61094	68266	83685	97037	112311	148979	210339
14	Other Private Services	126065	142432	165847	175272	184962	214063	248085	295537	316032	360161	440599	596048

Annexure 13: Gross Fixed Capital Formation: Public & General Government Sectors, by Economic Activity [at current market prices] from 1999-2000 to 2022-23

(Rs. Million)

Sr. No.	Industries/Sectors	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
B.	Public & General Govt. (B+C)	221491	233880	165807	172249	219550	269762	348935	422242	511060	582654	570938	601011
B.	Public Sector (Autonomous & Semi Aut-Bodies)	159700	170692	102572	91877	103299	123078	149835	155070	170856	146117	159518	153745
1	Agriculture, forestry and fishing	2921	680	3968	1388	109	222	279	263	301	302	327	345
2	Mining and quarrying	1719	6878	7491	9808	3142	5040	6133	20479	10354	14660	12664	12151
3	Manufacturing (Large scale)	21187	13893	1398	1400	3410	2140	3609	2825	1168	2150	1432	2614
4	Electricity, gas, and water supply	71757	72011	29872	42826	30557	39104	51458	43701	55562	65011	77940	79854
5	Construction	2551	2072	3229	2744	3258	4096	6375	12848	14429	14725	9949	7790
6	Transportation and storage	<u>36612</u>	<u>47533</u>	<u>35746</u>	<u>20505</u>	<u>40182</u>	<u>46513</u>	<u>52171</u>	<u>41689</u>	<u>48339</u>	<u>22566</u>	<u>30849</u>	<u>29535</u>
	a. Railways	3336	4332	3258	1869	3662	4239	4754	3680	4167	1907	10874	2136
	b. Post Offices	75	98	74	42	83	96	107	119	65	70	65	48
	c. Others	33200	43104	32415	18594	36438	42179	47309	37890	44107	20588	19911	27351
7	Information and communication	19601	25449	19138	10978	21513	24903	27932	29238	37145	21437	22035	18166
8	Financial and insurance activities	3352	2176	1730	2228	1128	1060	1878	4027	3558	5266	4322	3289
C.	General Government (By sources)	61792	63188	63236	80373	116251	146684	199100	267172	340204	436537	411420	447266
	i. Federal	17889	17208	21239	22616	29579	27885	38329	46291	67081	118254	133913	134417
	ii. Provincial	35138	34704	19613	29525	54144	77407	122774	153561	181294	213290	219840	242542
	iii. District Governments	8765	11276	22384	28232	32528	41393	37997	67320	91829	104993	57667	70307
	General Government (By industries)	61792	63188	63236	80373	116251	146684	199100	267172	340204	436537	411420	447266
	i) Public Administration and Social Security (General Government)	50868	52017	52057	66164	95700	120753	163902	232436	270800	359162	340511	370178
	ii) Education	5208	5325	5329	6774	9798	12363	16780	20300	30506	35318	35355	38435
	iii) Human health and social work activities	5716	5845	5850	7435	10754	13569	18418	14436	38898	42057	35555	38653

Annexure 13 (cont.)

Sr. No.	Industries/Sectors	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
	Public & General Govt. (B+C)	761368	798918	822118	1054852	1119929	1453100	1807698	1373714	1345055	1658800	2310179	2635947
B.	Public Sector	162104	292145	227612	305802	252053	363686	448598	475183	349556	417382	512117	471565
	(Autonomous & Semi Aut-Bodies)												
1	Agriculture, forestry and fishing	414	134	131	159	205	183	242	214	302	263	314	859
2	Mining and quarrying	18074	15203	21933	31703	28053	62529	24246	18123	25127	25295	24611	17244
3	Manufacturing (Large scale)	2883	5778	5854	1760	1333	28205	8635	1765	8620	14395	16864	8037
4	Electricity, gas, and water supply	71372	153165	84071	163227	155108	146619	260657	375240	236452	264958	245755	201221
5	Construction	11377	16001	19920	9572	5178	5812	6606	970	4156	9775	27807	31658
6	Transportation and storage	<u>30487</u>	<u>70883</u>	<u>51761</u>	<u>54364</u>	<u>26905</u>	<u>69745</u>	<u>115242</u>	<u>42244</u>	<u>24678</u>	<u>56250</u>	<u>71383</u>	<u>142374</u>
	a. Railways	4265	24478	8767	6196	5825	39407	8627	14612	6261	4239	7177	972
	b. Post Offices	34	28	0	5	0	1	0	997	1539	2	1	0
	c. Others	26188	46378	42995	48163	21080	30337	106615	26635	16878	52009	64205	141402
7	Information and communication	20486	20403	39013	39481	28307	33644	26377	28753	42344	35011	100842	48731
8	Financial and insurance activities	7011	10578	4929	5535	6964	16949	6593	7874	7877	11435	24541	21441
C.	General Government (By sources)	599264	506773	594507	749050	867876	1089414	1359100	898531	995499	1241418	1798062	2164382
	i. Federal	148774	151799	169250	214678	235406	314376	359047	354495	387225	477178	542267	617294
	ii. Provincial	372721	288464	358791	442650	527461	686665	909116	463854	527970	653800	1086307	1355522
	iii. District Governments	77769	66510	66466	91722	105009	88373	90937	80182	80304	110440	169488	191566
	General Government (By industries)	599264	506773	594507	749050	867876	1089414	1359098	898530	995500	1241418	1798062	2164382
	i) Public Administration and Social Security (General Government)	487649	427367	514388	624622	750084	967642	1229418	804220	888918	1070774	1634531	1923075
	ii) Education	62110	36649	54706	70114	80403	74026	69232	59004	56683	101795	81784	154703
	iii) Human health and social work activities	49505	42758	25412	54314	37389	47746	60448	35306	49899	68848	81747	86604

Annexure 14: Gross Fixed Capital Formation, Private, Public & General Government Sectors, by Economic Activity, [at constant prices] from 1999-2000 to 2022-23

(Rs. Million)

Sr. No.	Industries/Sectors	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
	Total GFCF(A+B+C)	2465567	2586086	2517718	2752144	3017815	3303000	3935866	4069238	4220049	4045528	3734245	3412393
A.	Private Sector	1759904	1858920	2002787	2242883	2393746	2584124	3082197	3092556	3180257	3040759	2855245	2642382
B.	Public Sector	484162	509410	303174	251814	277914	308529	348119	342023	333389	242526	248181	204281
C.	General Government	221502	217756	211757	257447	346154	410347	505550	634660	706404	762243	630819	565729
	Private & Public Sector (A+B)	2244065	2368330	2305961	2494697	2671661	2892652	3430316	3434578	3513646	3283285	3103426	2846663
	(Sector wise total)												
1	Agriculture, forestry and fishing	618997	617955	634218	665464	679598	697879	732966	747599	754399	795179	827537	838209
2	Mining and quarrying	75699	82912	90822	271861	170389	58561	84103	99889	82427	99525	116267	75171
3	Manufacturing	429434	467142	497420	465086	546029	611510	759480	671386	683459	657929	455519	371518
	i. Large Scale	402620	437919	465563	430349	508145	570185	714394	623072	631681	602434	396034	307753
	ii. Small Scale (including Slaughtering)	26814	29224	31858	34737	37884	41325	45086	48314	51779	55496	59485	63765
4	Electricity, gas, and water supply	193420	191905	98530	124374	79174	94406	123320	105627	128085	177697	168425	193091
5	Construction	40884	37022	43823	16037	20349	41138	52851	64854	60472	69403	50797	31671
6	Wholesale and retail trade	94870	100511	102949	109799	121557	138552	151735	160613	169705	164578	167493	170926
7	Accommodation and food service activities (Hotels and Restaurants)	39512	41124	42802	44549	46366	48258	50227	52276	54409	56629	58939	61344
8	Transportation and storage	211155	250506	217130	214327	310075	363330	429733	367649	348414	249653	286474	245363
9	Information and communication	80066	104999	72611	49385	131437	250117	422868	504846	544103	310814	258138	131124
10	Financial and insurance activities	30034	24470	34340	36297	42455	44491	51962	65286	70264	61094	46001	35331
11	Real estate activities (Ownership of Dwellings)	279671	290858	302492	314592	327176	340263	353873	368028	382749	398059	413982	430541
12	Public Administration and Social Security (General Government)	182344	179260	174322	211934	284959	337804	416177	552147	562292	627138	522096	468224
13	Education	69949	72807	75672	87293	103297	109836	120000	127723	144014	143450	138000	132673
14	Human health and social work activities	44137	44985	45778	51970	61599	68988	79318	68988	117323	111803	94752	91248
15	Other Private Services	75394	79629	84806	89176	93355	97866	107254	112329	117933	122576	129826	135957

Annexure 14 (cont.)

Sr. No.	Industries/Sectors	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
A.	Total GFCF(A+B+C)	3538085	3624603	3745892	4257588	4657149	5017178	5533617	4921409	4592834	4761190	5030894	4135815
A.	Private Sector	2663827	2769275	2931166	3213075	3537220	3621176	3879013	3812927	3627468	3681814	3820451	3112239
B.	Public Sector	187894	314655	228254	303247	252053	353002	418721	404028	257481	272571	274939	176559
C.	General Government	686363	540674	586472	741267	867876	1043000	1235883	704454	707885	806805	935504	847017
	Private & Public Sector (A+B)	2851721	3083930	3159419	3516322	3789273	3974178	4297734	4216955	3884949	3954385	4095390	3288798
	(Sector wise total)												
1	Agriculture, forestry and fishing	830614	860785	855527	901052	904250	954120	988985	996522	996479	1043770	1082303	1020127
2	Mining and quarrying	82735	59703	82449	88020	122166	101274	71341	57706	55167	37088	36374	27754
3	Manufacturing	373988	448532	431301	483154	723845	720981	739446	706175	627453	625998	653378	343241
	i. Large Scale	305629	375243	352724	398899	633494	622096	631209	587689	497732	502193	529100	244256
	ii. Small Scale (including Slaughtering)	68359	73290	78578	84256	90351	98885	108237	118486	129721	123805	124278	98985
4	Electricity, gas, and water supply	169410	196135	128622	239391	201651	183994	363600	399832	239057	220800	194903	125711
5	Construction	37820	40148	62158	50490	64882	107742	78075	36618	38333	35276	46205	31185
6	Wholesale and retail trade	173799	179966	188550	193547	202799	221295	274423	337356	290600	297684	244641	149568
7	Accommodation and food service activities (Hotels and Restaurants)	63847	66452	69163	71985	74922	89007	77829	67246	41238	37077	30504	20681
8	Transportation and storage	242014	308785	267824	367376	416691	471198	555163	437579	259458	392552	450594	274505
9	Information and communication	113787	121089	246394	250234	158036	150510	130204	121632	262277	150167	216736	108415
10	Financial and insurance activities	40289	49510	39073	47736	56520	62897	56060	57198	55568	62162	61673	73201
11	Real estate activities (Ownership of Dwellings)	447762	465673	484300	503672	523819	543355	563585	584065	604777	626873	649919	673767
12	Public Administration and Social Security (General Government)	558526	455955	507437	618132	750084	926416	1117958	630514	632097	695903	850422	752583
13	Education	157545	127034	144886	163449	179991	175242	174250	161297	161121	184036	163958	185611
14	Human health and social work activities	101561	92875	74602	105900	92531	104203	117045	93289	104484	117736	120045	116207
15	Other Private Services	144387	151960	163606	173451	184962	204944	225651	234380	224726	234068	229240	233259

Annexure 15: Gross Fixed Capital Formation: Private Sector by Economic Activity [at constant prices] from 1999-2000 to 2022-23

(Rs. Million)

Sr. No.	Industries/Sectors	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
A.	Private Sector	1759904	1858920	2002787	2242883	2393746	2584124	3082197	3092556	3180257	3040759	2855245	2642382
1	Agriculture, forestry and fishing	611916	616343	625420	662350	679374	697452	732421	747100	753882	794703	827032	837747
	Crops	161554	152181	144068	163275	163107	162306	177131	175147	166494	190390	206589	200778
	Cotton Ginning	759	774	790	805	822	838	855	872	889	907	925	944
	Livestock	415670	429332	446046	462232	479838	498510	518457	534577	549719	566507	582410	599868
	Forestry	988	1009	1031	1053	1076	1099	1123	1148	1173	1198	1224	1251
	Fishing	32945	33046	33485	34985	34531	34699	34854	35356	35607	35701	35884	34907
2	Mining and quarrying	68886	58153	65377	238703	160188	42801	66933	49830	56956	70746	93979	56385
3	Manufacturing	353495	419269	492738	460602	535874	605524	750314	664675	681034	654176	453323	368211
	i. Large Scale	326681	390045	460881	425865	497990	564199	705229	616361	629255	598680	393838	304446
	ii. Small Scale (including Slaughtering)	26814	29224	31858	34737	37884	41325	45086	48314	51779	55496	59485	63765
4	Electricity, gas, and water supply	19464	21182	32295	28308	16235	19148	22698	22766	32831	75511	48147	86221
5	Construction	34007	31567	35408	9022	13038	32771	40413	40999	35639	48100	35595	21312
6	Wholesale and retail trade	94870	100511	102949	109799	121557	138552	151735	160613	169705	164578	167493	170926
7	Accommodation and food service activities (Hotels and Restaurants)	39512	41124	42802	44549	46366	48258	50227	52276	54409	56629	58939	61344
8	Transportation and storage	79931	86711	97418	148649	190414	233223	297252	268625	248042	210250	239174	208005
9	Information and communication	9810	17305	8519	14222	67373	180459	351939	435397	466974	273383	224353	108147
10	Financial and insurance activities	18020	16971	28546	29160	39096	41526	47193	55721	62876	51899	39374	31171
11	Real estate activities (Ownership of Dwellings)	279671	290858	302492	314592	327176	340263	353873	368028	382749	398059	413982	430541
12	Education	51280	54455	57825	65596	74123	75252	77392	79501	80670	81781	83792	84058
13	Human health and social work activities	23648	24842	26190	28155	29578	31029	32553	34696	36555	38367	40237	42357
14	Other Private Services	75394	79629	84806	89176	93355	97866	107254	112329	117933	122576	129826	135957

Annexure 15 (cont.)

Sr. No.	Industries/Sectors	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
A.	Private Sector	2663827	2769275	2931166	3213075	3537220	3621176	3879013	3812927	3627468	3681814	3820451	3112239
1	Agriculture, forestry and fishing	830148	860641	855394	900894	904045	953943	988757	996336	996250	1043597	1082130	1019830
	Crops	175852	187228	170147	192370	176622	206283	219931	206156	182757	206978	219862	141973
	Cotton Ginning	963	982	1001	1022	1042	1063	1084	1106	1128	1150	1173	1197
	Livestock	616981	635988	647422	670463	689165	709222	730231	751233	774253	797164	822544	837861
	Forestry	1278	1306	1334	1363	1392	1423	1453	1485	1517	1550	1584	1618
	Fishing	35075	35137	35491	35677	35824	35952	36058	36356	36595	36755	36967	37181
2	Mining and quarrying	58409	41990	60000	56244	94113	38317	47307	43443	39790	21993	22964	20091
3	Manufacturing	<u>370685</u>	<u>442368</u>	<u>425526</u>	<u>481412</u>	<u>722512</u>	<u>693978</u>	<u>731594</u>	<u>704791</u>	<u>621324</u>	<u>616643</u>	<u>644604</u>	<u>340096</u>
	i. Large Scale	302327	369078	346949	397157	632161	595093	623357	586305	491603	492838	520326	241111
	ii. Small Scale (including Slaughtering)	68359	73290	78578	84256	90351	98885	108237	118486	129721	123805	124278	98985
4	Electricity, gas, and water supply	89199	31282	42983	77363	46543	41949	117837	74272	59696	46394	59381	56183
5	Construction	24642	23046	42309	41294	59704	102132	72006	35819	35207	28476	31520	18438
6	Wholesale and retail trade	173799	179966	188550	193547	202799	221295	274423	337356	290600	297684	244641	149568
7	Accommodation and food service activities (Hotels and Restaurants)	63847	66452	69163	71985	74922	89007	77829	67246	41238	37077	30504	20681
8	Transportation and storage	207096	233160	216762	313577	389786	404424	450369	404459	241910	355995	413454	218787
9	Information and communication	90324	99322	207908	211163	129729	118300	106218	99089	232167	127414	164269	89345
10	Financial and insurance activities	32259	38224	34210	42258	49556	46671	50065	51025	49967	54730	48905	64810
11	Real estate activities (Ownership of Dwellings)	447762	465673	484300	503672	523819	543355	563585	584065	604777	626873	649919	673767
12	Education	86407	87934	90919	94064	99588	104370	111295	115037	120815	117879	121407	125069
13	Human health and social work activities	44861	47258	49534	52150	55142	58491	62077	65609	69002	72991	77513	82315
14	Other Private Services	144387	151960	163606	173451	184962	204944	225651	234380	224726	234068	229240	233259

Annexure 16: Gross Fixed Capital Formation: Public & General Government Sectors, by Economic Activity [at constant prices] from 1999-2000 to 2022-23

(Rs. Million)

Sr. No.	Industries/Sectors	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
B.	Public & General Govt. (B+C)	705664	727166	514930	509261	624068	718876	853669	976683	1039792	1004769	879000	770010
	Public Sector	484162	509410	303174	251814	277914	308529	348119	342023	333389	242526	248181	204281
	(Autonomous & Semi Aut-Bodies)												
1	Agriculture, forestry and fishing	7081	1612	8798	3114	225	427	545	498	517	475	504	462
2	Mining and quarrying	6813	24759	25445	33158	10201	15760	17170	50059	25471	28779	22288	18786
3	Manufacturing (Large scale)	75939	47874	4682	4484	10155	5986	9165	6711	2426	3754	2196	3307
4	Electricity, gas, and water supply	173956	170723	66235	96066	62939	75258	100622	82861	95255	102186	120278	106871
5	Construction	6877	5455	8416	7014	7310	8367	12438	23855	24833	21303	15202	10360
6	Transportation and storage	<u>131224</u>	<u>163795</u>	<u>119712</u>	<u>65679</u>	<u>119661</u>	<u>130107</u>	<u>132481</u>	<u>99024</u>	<u>100371</u>	<u>39402</u>	<u>47300</u>	<u>37358</u>
	a. Railways	11958	14927	10909	5985	10905	11857	12073	8742	8651	3330	16673	2702
	b. Post Offices	270	337	246	135	246	268	273	282	136	122	99	61
	c. Others	118996	148531	108556	59558	108510	117983	120135	90000	91584	35950	30528	34595
	Information and communication	70256	87694	64092	35164	64065	69658	70929	69449	77129	37432	33785	22978
7	Financial and insurance activities	12014	7498	5794	7136	3359	2965	4769	9565	7388	9195	6627	4160
C.	General Government (By sources)	221502	217756	211757	257447	346154	410347	505550	634660	706404	762243	630819	565729
	i. Federal	64126	59302	71121	72444	88077	78008	97324	109962	139288	206485	205326	170019
	ii. Provincial	125956	119596	65677	94572	161220	216544	311744	364781	376441	372429	337075	306782
	iii. District Governments	31419	38858	74958	90430	96858	115795	96481	159917	190675	183330	88419	88929
	General Government (By industries)	221502	217756	211757	257447	346154	410347	505550	634660	706404	762243	630819	565729
	i) Public Administration and Social Security (General Government)	182344	179260	174322	211934	284959	337804	416177	552147	562292	627138	522096	468224
	ii) Education	18668	18352	17847	21698	29174	34584	42608	48222	63344	61670	54209	48615
	iii) Human health and social work activities	20490	20143	19588	23815	32021	37959	46765	34292	80767	73436	54515	48890

Annexure 16 (cont.)

Sr. No.	Industries/Sectors	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (R)	2022-23 (P)
B.	Public & General Govt. (B+C)	874257	855328	814726	1044514	1119929	1396002	1654604	1108482	965366	1079376	1210443	1023576
	Public Sector	187894	314655	228254	303247	252053	353002	418721	404028	257481	272571	274939	176559
	(Autonomous & Semi Aut-Bodies)												
1	Agriculture, forestry and fishing	466	144	133	158	205	177	228	186	229	173	173	297
2	Mining and quarrying	24326	17713	22449	31776	28053	62957	24034	14263	15377	15095	13410	7663
3	Manufacturing (Large scale)	3302	6165	5775	1742	1333	27003	7852	1384	6129	9355	8774	3145
4	Electricity, gas, and water supply	80211	164853	85638	162028	155108	142045	245763	325560	179361	174406	135522	69528
5	Construction	13178	17102	19849	9195	5178	5610	6069	799	3126	6800	14685	12747
6	Transportation and storage	<u>34918</u>	<u>75625</u>	<u>51062</u>	<u>53799</u>	<u>26905</u>	<u>66774</u>	<u>104794</u>	<u>33120</u>	<u>17548</u>	<u>36557</u>	<u>37140</u>	<u>55718</u>
	a. Railways	4885	26115	8648	6132	5825	37729	7845	11456	4452	2755	3734	381
	b. Post Offices	39	30	0	5	0	1	0	782	1094	1	1	0
	c. Others	29994	49480	42414	47663	21080	29044	96949	20882	12002	33801	33405	55337
	Information and communication	23463	21767	38486	39071	28307	32210	23986	22543	30110	22753	52467	19070
7	Financial and insurance activities	8030	11286	4862	5477	6964	16226	5995	6173	5601	7432	12768	8391
C.	General Government (By sources)	686363	540674	586472	741267	867876	1043000	1235883	704454	707885	806805	935504	847017
	i. Federal	170397	161954	166962	212448	235406	300982	326495	277926	275350	310121	282133	241574
	ii. Provincial	426894	307761	353942	438050	527461	657410	826695	363664	375432	424909	565189	530475
	iii. District Governments	89072	70959	65568	90769	105009	84608	82693	62863	57103	71776	88182	74968
	General Government (By industries)	686363	540674	586472	741267	867876	1043000	1235883	704454	707885	806805	935504	847017
	i) Public Administration and Social Security (General Government)	558526	455955	507437	618132	750084	926416	1117958	630514	632097	695903	850422	752583
	ii) Education	71138	39100	53967	69385	80403	70872	62955	46260	40306	66157	42551	60542
	iii) Human health and social work activities	56700	45618	25068	53750	37389	45712	54968	27680	35482	44745	42532	33892

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