

# Quarterisation of National Income Accounts of Pakistan

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## Abstract

Arby (2008) quarterised the production side of annual GDP, and its subsectors, for 1970-1971 to 2004-2005, based on constant prices of 1999-2000, as well as on current prices. This study provides quarterly estimates of (sectoral and overall) gross domestic production in Pakistan for the years 1999-2000 to 2011-2012 based on constant prices of 1999-2000, as well as on current prices. Seasonality in quarterly gross domestic product in Pakistan mainly arises from agriculture. Furthermore, this study also provides estimates of various components of the expenditure side of the GDP for 1972-1973 to 2011-2012, for the first time, as far as we are aware of.

## 1. Introduction

The National Income Accounts (NIAs) present a macro picture of the income cycle of a country. It helps us understand the sources of supply of goods and services (agriculture, industry and services), and their uses (final consumption expenditure, gross capital formation, and exports). In Pakistan, the Pakistan Bureau of Statistics (PBS) compiles the Annual National Income Accounts (ANIA) based on the UN System of National Accounts 1993<sup>2</sup>. Some information is also available on a monthly basis, such as the large scale manufacturing (LSM) index<sup>3</sup>. PBS does not disseminate Quarterly National Income

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<sup>2</sup> The 1993 System of National Accounts (SNA 1993) is a comprehensive, consistent and flexible set of macroeconomic accounts to meet the needs of government and private sector analysts, policy makers and decision takers. It is a conceptual framework, not manual for compilations of NIAs. For that purpose a separate set of handbooks such as 'Handbook of National Accounting,' is published by United Nations. SNA 1993 was prepared by Inter-Secretariat Working Group of National Accounts (ISWGNA) - which consists of IMF, EU, OECD, UN and WB – mandated by the Statistical Commission of United Nations to oversee the international coordination on the development of national accounts. Based on evolving needs of users, new developments in economic environment and advances in methodological research, ISWGNA has produced and released updated version SNA 2008. SNA 2008 is designed to accommodate the needs of countries at different stages of economic development. While proclaiming (in May 2013) the change of base year for ANIAs to 2005-06, PBS announced adopting SNA 2008 for compilation of these accounts. For a brief on changes in compilation method, see Box 2.1 in 3rd quarterly report for FY13 on the state on Pakistan's economy by State Bank of Pakistan.

<sup>3</sup> It is an index of the production of large scale manufacturing establishments in Pakistan registered under Factories Act, 1934 (for details see PBS, 2011). It is based upon production of 112 commodities as reported regularly in Monthly Statistical Bulletin of PBS. The weights in the construction of the index are based upon census of manufacturing industries (CMI) conducted in the country from time to time. Recent most weights are from PBS (2009).

Accounts (QNIA), which can provide a timelier picture than ANIAs, and are more comprehensive than indicators such as LSM index and merchandise imports/exports.

This study provides estimates of quarterly GDP from both the production, and from the expenditure side (on current prices and on prices of 1999-2000). It also includes the quarterly estimates of the various subsectors/components since 1972-1973, following Arby (2008), and Arby and Batool (2007) by using available data.

QGDG estimates (from the production side) for 1972-1973 to 1998-1999 are based upon Arby (2008), while those for 1999-2000 to 2011-2012 are worked out in this study following Arby (2008). Once we obtain QGDG estimates from the production side for 1972-1973 to 2011-2012, we will quarterise the expenditure side of NIA. Quarterly estimates of overall gross fixed capital formation are worked out following Arby and Batool (2007). Government fixed capital formation is quarterised on the basis of the quarterly proportion of total government development expenditure. 'Net exports' are quarterised using monthly<sup>4</sup> trade data from PBS. After the quarterisation of government consumption expenditure on the basis of gross public services expenditure, private consumption expenditure are estimated as a residual.

With these datasets, researchers will be able to better analyze dynamic relationships amongst these aggregates, and between these and other important aggregates (like broad money, consumer prices, etc.). Thus, these data will be useful for business cycle analysis and economic modeling. Of course, for understanding the economy's structure and long term trends, ANIA are more useful<sup>5</sup>. Although Arby (2008) provides quarterly estimates of GDP and its sectors/subsectors (for 1970-1971 to 2004-2005) from the production side, based on current prices and on constant prices of 1999-2000, it lacks quarterly estimates of GDP for the second half of the last decade from the production side and does not contain quarterly estimates for the expenditure side of GDP.

There is a need to provide the production estimates at least for the second half of the 2010s, 2010-2011, and 2011-2012. Since there are usually revisions in the NIA up to three years from the first release of the data, there is also a need to reassess the quarterly GDP even from 1999-2000. We have estimated quarterly GDP from production side from 1999-2000 to 2011-2012 (the year up to which we have all desired data, necessary for quarterly NIA estimation). We also provide the quarterly estimates of various components of expenditure side of the NIAs for 1972-1973 to 2011-2012.

The remainder of this paper is organised as follows. Section 2 presents a review of the relevant literature. Section 3 describes the methodology to estimate quarterly NIA (sector-wise as well as subsector-wise) from production side. In section 4 we discuss the (component-wise) approach adopted to estimate the QNIA from expenditure side. The

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<sup>4</sup> Each of the seasonally adjusted data, unadjusted data, and trend data provides useful perspective. However, unadjusted data is used in this study for QNIAs estimates.

<sup>5</sup> For example, changes in the share of agriculture in overall income changes in decades and not in quarters.

estimates of quarterly NIA (overall as well as the component-wise ones) are presented in appendices: Appendix A presents a time series of quarterly (Real) GDP from the production side for 1999-2000 to 2011-2012. Appendix B presents a time series of quarterly (Nominal) GDP from production side for 1999-2000 to 2011-2012. In these appendices (A and B), quarterly estimates are provided from production side for the sectors and subsectors calculated in this study. Appendix C combines the quarterly proportion for GDP(FC) obtained in Arby (2008) for 1972-1973 to 1998-1999 with those estimated in this study for 1999-2000 to 2011-2012. For the combined period of 1972-1973 to 2011-2012 we have provided current, as well real quarterly GDP(FC) estimates in Appendix D. Appendices E1 to E11 present quarterly estimates of various components on the expenditure side of GDP. Appendix E12 contains quarterly estimates of net factor income from abroad. Appendices F, G and H present QGDP(MP), QGNP(FC) and QGNP(MP) respectively. The last section presents concluding remarks.

## **2. Literature Review**

Previous efforts on the quarterisation of ANIA of Pakistan include a recent study (Arby, 2008) on the issues in the compilation of NIAs of Pakistan. It provides a very good account of the relevant literature. Earlier studies on estimates of Pakistan's QNIAs include Bengaliwala (1995), Kemal and Arby (2004), and Arby (2008). Bengaliwala (1995) and Kemal and Arby (2004) quarterise GDP data based on an old base (1980-81). These studies only considered contact prices, and the production side of NIAs. None of these studies provide an updated estimate for quarterly production in Pakistan, which we have provided in this study (up to Q4-FY2012).

Arby and Batool (2007) quarterised overall gross fixed capital formation for 1971-1972 to 2005-2006. However, our study provides estimates for quarterly private and public sector gross fixed capital formation separately, in addition to estimating quarterly overall gross fixed capital formation. This study also attempts to fill a gap in previous studies, by providing quarterly estimates of various components of the expenditure side of NIAs for 1972-1973 to 2011-2012.

## **3. Methodology-Production Side**

For the quarterisation of the production side of GDP we have followed the methodology used in Arby (2008)<sup>6</sup> and re-estimated quarterly production for the period of 1999-2000 to 2011-2012. In the following subsections we discuss the quarterisation process for different sectors and subsectors of the economy.

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<sup>6</sup> Methodology used in Arby (2008) is closer to the actual approach of compiling overall QNIA by government agencies rather than the fashion in literature to resort to econometric techniques to quarterise a single series of GDP. In the case of applying econometric techniques to quarterise the annual GDP, researcher usually looks for some GDP related quarterly series; which is then used to obtain estimates of quarterly GDP (Abeyasinghe and Rajaguru, 2004). However, econometric methods and indirect behavioural relationships are not a substitute for the data collection (IMF, 2001). In this study we have used actual source data that directly covers a high proportion of the totals. (For details, see Appendix I).

### 3.1 Agriculture Sector

This sector consists of five subsectors: major crops, minor crops, live stocks, fishing and forestry. Quarterly estimates of gross value added of these sub-sectors (for 1999-2000 to 2011-2012) are obtained using the method detailed below.

#### 3.1.1 Major Crops

The value added of 12 major crops ( $VAMC_t$ )<sup>7</sup> has been quarterised ( $VAMC_t^q(c)$ ;  $c = 1, 2, \dots, 12$ ;  $t$  is time (year) script and  $q = 1, 2, 3, 4$ ), using

- Province-wise major crop production ( $PRMC_t(p, c)$ ;  $p = 1, 2, 3, 4$  and  $C = 1, 2, \dots, 12$ ) from Agriculture Statistics of Pakistan (various issues)
- The share of each major crop in annual value added (calculated from information (a) above) of major crops in Pakistan ( $S^c$ ;  $c = 1, 2, \dots, 12$ ;  $\sum_{c=1}^{12} S^c = 1$ )
- The annual value added of major crops in Pakistan ( $VAMC_t(c)$ ;  $c = 1, 2, \dots, 12$ ) on constant prices of 1999-2000.
- Province-wise quarterly harvest calendar<sup>8</sup> of each of the 12 major crops prepared by PBS.

The quarterly value added at 1999-2000 prices for quarter  $q$  in year  $t$  is then obtained as follows. Province-wise major crop production is converted into quarterly province-wise major crop production ( $PRMC_t^q(p, c)$ ;  $p = 1, 2, 3, 4$  and  $c = 1, 2, \dots, 12$ ) based upon the province-wise quarterly harvest calendar. This is then summed up across the provinces to calculate quarterly major crop production, i.e.

$$PRMC_t^q(c) = \sum_{p=1}^4 PRMC_t^q(p, c) \quad \text{for} \quad c = 1, 2, \dots, 12$$

Based on the share of each major crop in the annual value added of major crops we obtain the value of each crop, i.e.

$$VAMC_t(c) = S^c * VAMC_t; \quad c = 1, 2, \dots, 12; \quad \sum_{c=1}^{12} S^c = 1.$$

This annual valued added of each major crop is then divided into four quarters based upon the quarter-wise proportion of each crop in the production of major crop, i.e.

<sup>7</sup> These include wheat, rice (basmati, iri and others), bajra, jowar, maize, barley, gram, sugarcane, rapeseed & mustard, and sesamum, cotton, and tobacco.

<sup>8</sup> Pakistan Bureau of Statistics has prepared harvest calendars for each of the major (as well as minor) crop and for each of the province, on the basis of output harvested in every quarters. For example in the case of sugarcane production in Punjab, 0 percent of sugarcane of the crop is harvested in Jul-Sep, 15 percent in Oct-Dec, 80 percent in Jan-Mar and 5 percent in Apr-Jun. These proportions are 0, 38, 61 and 1 in Sindh; 0, 50, 50, and 0 in case of Khyber Pakhtunkhawah; and 0, 0, 100 and 0 in case of Baluchistan for Jul-Sep, Oct-Dec, Jan-Mar, and Apr-Jun respectively. Though such calendar has practical merit in using it for quarterisation of output, it does not consider economic activities pertaining to sowing of the crops which may have happened in some earlier quarters. Furthermore, one might not expect shocks to the harvest calendar over the short run, however, over the long run there can be changes in the crops pattern across the quarters and/or provinces.

$$VAMC_t^q(c) = VAMC_t(c) * [PRMC_t^q(c) / \sum_{q=1}^4 PRMC_t^q(c)]$$

We calculate the quarterly value added of major crops ( $VAMC_t^q$ ) by adding the value added of 12 major crops on constant prices of 1999-2000. Then we convert quarterly value addition, calculated in constant prices, into current prices using a quarterly price index of major crops (constructed using WPI prices of relevant major crops), as data on Producer Price Index (which is used by PBS) is not (publicly) available.

### 3.1.2 Minor Crops

The value added by 37 minor<sup>9</sup> crops has been quarterised by the same process as the major crops, except that the harvest calendar used here is related to minor crops. Similarly, we convert the quarterly value addition from constant to current prices using a quarterly price index of minor crops (constructed using WPI prices of relevant minor crops).

### 3.1.3 Livestock

There are two main contributors to livestock: milk and other. The latter includes the natural growth of animals, draught power, dung and urine, wool, poultry etc. The share of milk in total livestock value addition is found to be around 60 percent (or,  $m_t = 0.60$ ), on the basis of authors' estimates, based upon the relevant annual statistics on milk and others. Following Kemal and Arby (2004), we can say that the peak production of milk is obtained in winter. Kemal and Arby (2004) stated that 35 percent of milk production was received in summer (which they divided equally for first and fourth quarter) and 65 percent was obtained in the winter season (which they divided between the second and third quarter in proportion of 35:30, since the third quarter is relatively warmer than the second one). The rest of the value added in the livestock sector is distributed equally among the four quarters. Thus:

$$\begin{aligned} VALS_{1t} &= VALS_{4t} = VALS_t * (0.175m_t + 0.25(1 - m_t)) \\ VALS_{2t} &= VALS_t * (0.35m_t + 0.25(1 - m_t)); \\ VALS_{3t} &= VALS_t * (0.30m_t + 0.25(1 - m_t)). \end{aligned}$$

We convert the quarterly value addition from constant to current prices using the quarterly wholesale price index of fresh milk, eggs, chicken and meat.

### 3.1.4 Fishing

Fishing consists of marine fishing and land (farm) fishing. Following Kemal and Arby (2004), it is assumed that marine fish make up about 30 percent of the total value added in the fishing subsector and the other 70 percent is from land fish. This is the following seasonal pattern for marine and land fish reported by PBS (2002).

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<sup>9</sup> These include mash, masoor, mung, mattar, other pulses, tomato, potato, other vegetables, groundnuts, soybean, sunflower, safflower, canola, linseed, castor seed, mango, banana, apple, citrus fruits, dates, guava, apricot, peach, pears, plums, grapes, pomegranate, almonds, chillies, onion, garlic, turmeric, ginger, Other condiments, gourar seeds, fodder crops, and sugar beet.

Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
Marine Fish	0.2012	0.3069	0.2365	0.2554
Land Fish	0.1121	0.2735	0.3498	0.2646

Source: PBS (2002)

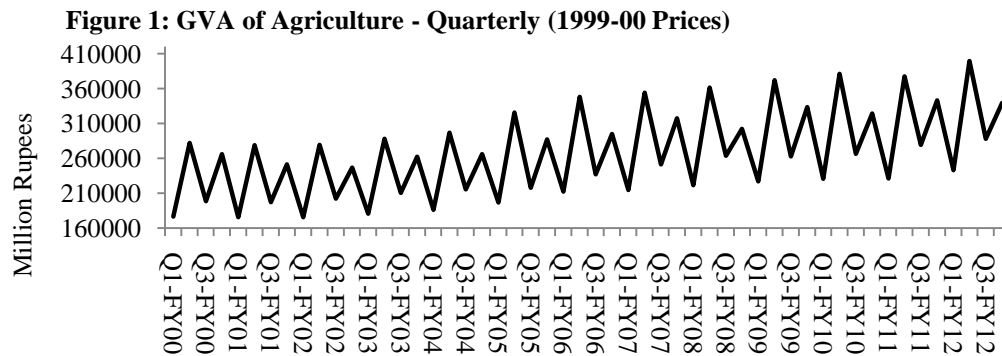
Thus quarterly value added for fishing is calculated as  $VAF_t^q = (0.3 * mf_q + 0.7 * nf_q) * VAF_t$ . Where  $VAF_t^q$  = Value added of fishing in quarter q of year t,

$VAF_t$  = Value added of fishing in year t,  $mf_q$  = Share of Marine Fish in quarter q,  $nf_q$  = Share of Land Fish in quarter q. We convert the quarterly value addition from constant to current prices, using quarterly wholesale price index of fish.

### 3.1.5 Forestry

Annual value added by forestry sub sector is divided into quarterly value additions using the quarterly proportions 0.2009, 0.2561, 0.2882, and 0.2548, estimated by the Quaidian Economic Consultants (2001). We convert the quarterly value addition from constant to current prices using the quarterly wholesale price index of timber and firewood.

The overall estimated quarterly gross value added by agriculture sector (at 1999-2000 prices) is shown below:



## 3.2 Industrial Sector

The industrial sector consists of six subsectors: mining and quarrying, small size manufacturing, large scale manufacturing, slaughtering, construction and electricity, water &

gas supply. The detailed process of quarterisation of gross value added by these subsectors (for 1999-2000 to 2011-2012) is given below.

### **3.2.1 Mining and Quarrying**

This subgroup consists of aragonite marble, agri-clay, silica sand, gypsum, lime stone, ordinary stone, rock salt, coal, copper, copper blister, Iron ore, bauxite, barites, bentonite, celestite, china clay, chalk, chromites, dolomite, laterite, feldspar, fire clay, fluorite, fuller's earth, magnesite, manganese, ochres, ordinary sand, soap stone, sulphur, erby stone, phosphate, allied services, minerals exploration establishments, natural gas, and crude oil. The monthly production of these items (except phosphate, allied services and minerals exploration establishments) is available in the Monthly Statistical Bulletin (PBS). We multiply the monthly production numbers with base year prices to calculate quarterly gross value. Summing over the monthly gross values we calculate quarterly gross values. The annual gross value of phosphate, allied services and minerals exploration establishments has been distributed into quarterly according to the quarterly ratios of addition of items for which monthly production is available. Quarterly value addition is calculated by subtracting input costs from the gross value<sup>10</sup>. We convert quarterly value addition from constant to current prices, using the composite quarterly wholesale price index of coal and natural gas (with their respective share in total mining output as weights).

### **3.2.2 Manufacturing**

#### **a. Large-scale Manufacturing**

Annual value added by large scale manufacturing ( $LSM_y$ ) is quarterised on the basis of the quarterly share of large scale manufacturing, calculated using the monthly large scale manufacturing index<sup>11</sup> (from PBS Monthly Statistical Bulletin), i.e.;

$$LSM_{qy} = \left[ \frac{\sum_{m=3k-2}^{3k} LSM_{my}}{\sum_{m=1}^{12} LSM_{my}} \right] \cdot LSM_y$$

Where  $LSM_{qy}$  is the value added by large scale manufacturing sector in quarter  $q$  and fiscal year  $y$  and  $LSM_{my}$  is the monthly index of large scale manufacturing from month  $m$  in year  $y$ . We convert quarterly value addition from constant to current prices using wholesale price index of manufacturing.

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<sup>10</sup> Input costs proportions (of output) of coal, crude oil & natural gas, surface minerals, allied services/mineral exploration, and other minerals are 0.24, 0.23, 0.21, 0.47 and 0.21 respectively (Pakistan Bureau of Statistics, 2004).

<sup>11</sup> Since the monthly large scale manufacturing index is based upon the actual monthly large scale manufacturing output, we can use this index for quarterisation of value added of large scale manufacturing sector.

### b. Small-scale Manufacturing

Annual value added by small scale manufacturing ( $SSM_y$ ) is also quarterised on the basis of the monthly large scale manufacturing index (on the basis of backward and forward linkages between these two sectors) using

$$SSM_{qy} = \left[ \frac{\sum_{m=3k-2}^{3k} LSM_{my}}{\sum_{m=1}^{12} LSM_{my}} \right] \cdot SSM_y$$

Where  $SSM_{qy}$  is the value added by the small scale manufacturing sector in quarter  $q$  of fiscal year  $y$  and  $LSM_{my}$  is monthly index of large scale manufacturing in month  $m$  of year  $y$ . We convert quarterly value addition from constant to current prices using the wholesale price index of manufacturing.

### c. Slaughtering

The annual value added by slaughtering (both at constant and current prices) has been quarterised using the shares estimated in a PBS study on the slaughtering industry (PBS, 2002a). These are, 18, 25, 35 and 22 percent for quarter 1, 2, 3 and 4 respectively.

### 3.2.3 Construction

The annual value added by the construction sector is quarterised on the basis of (lagged) quarterly seasonal factors in cement production (taken from PBS Monthly Statistical Bulletin). That is

$$VA\_Construction_{1,t} = VA\_ConstructionV_t \times \frac{Cement_{4,t-1}}{Cement_t}$$

$$VA\_Construction_{2,t} = VA\_ConstructionV_t \times \frac{Cement_{1,t}}{Cement_t}$$

$$VA\_Construction_{3,t} = VA\_ConstructionV_t \times \frac{Cement_{2,t}}{Cement_t}$$

$$VA\_Construction_{4,t} = VA\_ConstructionV_t \times \frac{Cement_{3,t}}{Cement_t}$$



Where  $VA\_Construction_{k,t}$  is the quarterly value added by the construction sector in quarter  $k$  of year  $t$  and  $VA\_Construction_t$  is the annual value added of construction in year  $t$ . Similarly,  $Cement_{k,t}$  is the quarterly value added of cement in quarter  $k$  of year  $t$  and  $Cement_t$  is the annual value added of cement in year  $t$ .

We convert the quarterly value addition from constant to current prices using the quarterly wage index, which is obtained by applying seasonal factors of the wholesale price index of building material to the annual wage index.

### **3.2.4 Electricity, water & gas supply**

The annual value added by this sub-sector is quarterised on the basis of quarterly factors according to the study on electricity, gas and water supply (PBS, 2002b). The quarterly pattern of consumption of this group is given as follows:

Consumption pattern of electricity, gas & water supply sector

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Group\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
Electricity, gas & water supply	0.245	0.246	0.233	0.275

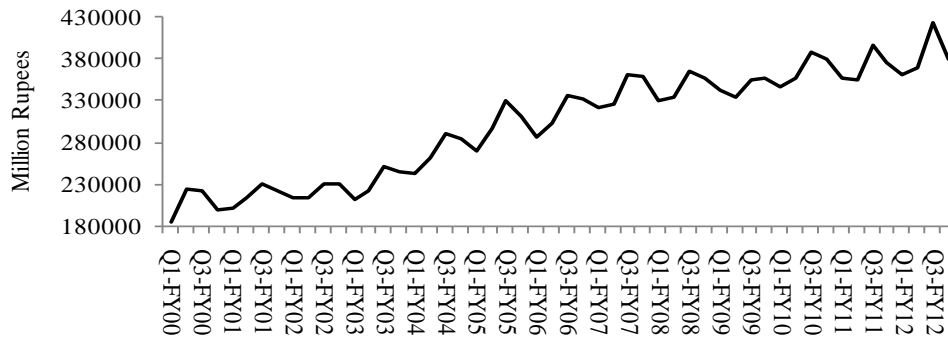
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Source: PBS (2002b)

Annual value added by this sub-sector is given in different issues of the Monthly Statistical Bulletin of PBS. The above factors are applied on the annual value added of this sub-sector to get its quarterly estimates.

We convert the quarterly value addition from constant to current prices using the wholesale price index of 'fuel and lighting' for electricity and gas; and general wholesale prices for water.

The overall estimated quarterly gross value added of industrial sector (at 1999-2000 prices) is shown below:

**Figure 2: GVA of Industry - Quarterly (1999-00 Prices)**

### 3.3 Services

This sector consists of six subsectors: wholesale and retail trade, transport, storage and communication, finance and insurance, ownership of dwellings, public administration and defense and social community and personal services. The quarterly estimates of gross value addition by these sub-sectors (for 1999-2000 to 2011-2012) are obtained using the method detailed below.

#### 3.3.1 Wholesale and Retail Trade

PBS estimates the annual value added by this subsector by applying trade margins, which is 16 percent, on (i) import-related trade, and (ii) the marketable portion of domestic production. The annual value added by the first component of this subsector is obtained as 16 percent of the sum of a) consumer goods, b) 75 percent of the raw material for consumer goods and c) 55 percent of capital goods and the raw material for capital goods imports. Annual value added by the second component is obtained as the residual from the overall value added by wholesale and retail trade. The annual value added by (i) and (ii) is quarterised on the basis of seasonal factors in imports and the commodity producing sector respectively. We convert the quarterly value addition of the first component from constant to current prices using the wholesale price index. However, the quarterly value addition of the second component is converted from constant to current prices using the quarterly unit value index of imports (base 1999-2000).

#### 3.3.2 Transport, Storage and Communication

This subsector covers economic activities such as transportation by railways, road, water and air, storage, pipelines for oil and gas transportation, postal services, telecom services, TV, Radio, etc. Because of the absence of quarterly time series information about the value addition by any of these services, we do not have any quantifiable base to quarterise the output by the transport, storage and communication subsector. However, Lisman and Sandee (1964) provides a procedure for the quarterisation of value addition of a sector/subsector

where the information set to assume the pattern of actual quarterly fluctuations is not available. Lisman and Sandee (1964) developed the following matrix to quarterise the annual value addition:

$$\begin{bmatrix} x_{1t} \\ x_{2t} \\ x_{3t} \\ x_{4t} \end{bmatrix} = \begin{bmatrix} 0.073 & 0.198 & -0.021 \\ -0.010 & 0.302 & -0.042 \\ -0.042 & 0.302 & -0.010 \\ -0.021 & 0.198 & 0.073 \end{bmatrix} \begin{bmatrix} X_{t-1} \\ X_t \\ X_{t+1} \end{bmatrix}$$

Where  $X_t$  is the annual observation for year  $t$ , and  $x_{jt}$  is quarterly estimate for quarter  $j$  in year  $t$ <sup>12</sup>. We convert the quarterly value addition from constant to current prices using the wholesale price index of transport and communication.

### **3.3.3 Finance and Insurance**

PBS estimates the annual value added by this subsector by summing wages, net operating surplus and depreciation pertaining to State Bank of Pakistan, scheduled and non-scheduled banks, development financial institutions (DFIs), cooperative societies, leasing, modarbas and insurance companies. Wages related part of value addition is quarterised by using the methodology given below under the “Public Administration and Defense.” The operating surplus is quarterised by using seasonality in monetary aggregates (M2)<sup>13</sup>. Depreciation is distributed over the four quarters uniformly. We convert the quarterly value addition from constant to current prices using the consumer price index.

### **3.3.4 Ownership of Dwelling**

Annual gross value addition in this subsector is quarterised following the Lisman and Sandee (1964) method. We also convert the quarterly value addition from constant to current prices using house rent index.

### **3.3.5 Public Administration & Defense**

PBS estimates the annual value added by this subsector based upon three components: (a) the wages and salaries of government employees, (b) a non-wage bill which is computed by PBS as a fixed ratio of 10% of wages, (c) and depreciation which is computed by PBS as a fixed ratio of 5% of the sum of wage and non-wage bills. While we have uniformly distributed non-wage bills and depreciation into four quarters, the wages are quarterised using the following methodology:

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<sup>12</sup> Lisman and Sandee (1964) method ensures: a) that the sum of quarterly figures equal to the yearly total; b) that if the yearly totals in three successive years are  $X_{t-1}$ ,  $X_t$  and  $X_{t+1}$ , the quarterly figures during year 2 are the same but in reverse order from what they would have been had the yearly totals been  $X_{t+1}$ ,  $X_t$  and  $X_{t-1}$ ; c) that if the yearly totals in three successive years rise by equal steps ( $X_t - X_{t-1} = X_{t+1} - X_t$ ) the quarterly figures during year 2 also rise by equal steps; and that if  $X_t - X_{t-1} = X_{t+1} - X_t$  the quarterly figures during year 2 should lie on sinusoid.

<sup>13</sup> Operating surplus of financial subsector is mainly the income from assets of banks created during the period in the forms of lending which constitute part of broad money (M2).

In a fiscal year the wages remain constant for the first six months and then jump upward due to the annual increment (usually 5 percent on average<sup>14</sup>) in January and then again remain constant for the subsequent months. The wages and salaries are quarterly distributed according to the following methodology:

Let  $MWAS_t$  represent the monthly wages and salaries during the first half of fiscal year  $t$ , and  $i$  represents the annual increment as fraction of  $MWAS_t$ . Then, the monthly wages and salaries for the second half will be  $(1 + i) \times MWAS_t$ . Thus, the total wages and salaries ( $AWAS_t$ ) during the year  $t$  will be:

$$AWAS_t = 6 \times (MWAS_t + MWAS_t \times (1 + i)) = 6MWAS_t(2 + i)$$

Fraction of wages and salaries in each quarter will be;

$$F_{1t} = F_{2t} = \frac{3 \times MWAS_t}{AWAS_t} = 0.5/(2 + i)$$

$$F_{3t} = F_{4t} = \frac{3 \times (1 + i)MWAS_t}{AWAS_t} = 0.5(1 + i)/(2 + i) \dots$$

The quarterly seasonal factors for Jul-Sep, Oct-Dec, Jan-Mar, and Apr-Jun are found to be 0.244, 0.244, 0.256, and 0.256 respectively.

We convert the quarterly value addition from constant to current prices using the consumer price index.

### 3.3.6 Social, Community & Personal Services

The annual gross value addition of this subsector is quarterised following the Lisman and Sandee (1964) method. We convert the quarterly value addition from constant to current prices using the consumer price indices for cleaning laundry and personal appearance, and recreation, entertainment and education groups, combined with their respective weights in CPI basket.

As reported in Table 7.1.1 of Arby (2008), real GDP estimates of Pakistan Bureau of Statistics after 1999-2000 are overestimated by around one percent compared to Arby (2008). We have quarterised the PBS released GDP (Factor Cost) for 1999-2000 and onward.

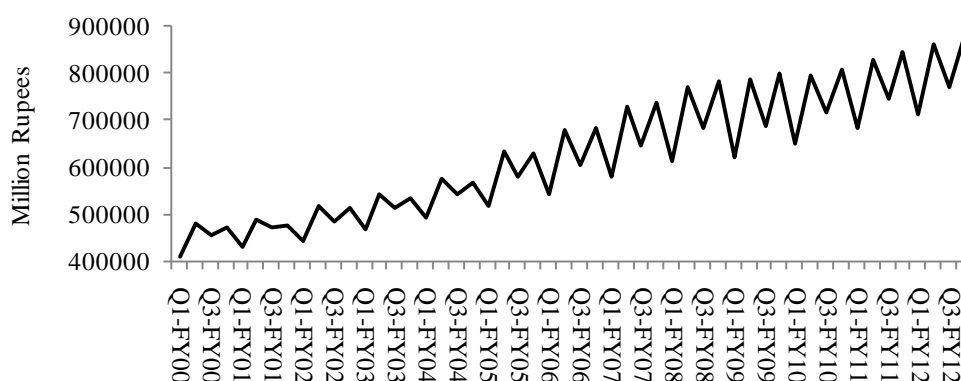
Those who want to use the previous (1972-1973 to 1998-1999) estimates, in conjunction with our estimates (1999-2000 to 2011-2012) of quarterly GDP, can use the table (Appendix C) showing the quarterly proportions of GDP for 1972-1973 to 1998-1999 based on Arby (2008) and for 1999-2000 to 2011-2012 based on this study. Combining the two studies' estimates is also convenient, as the estimated quarterly breakup of real GDP is the same for

<sup>14</sup> Periodic budgetary increases in salary are taken care in annual figures and do not affect the monthly distribution of wages and salary

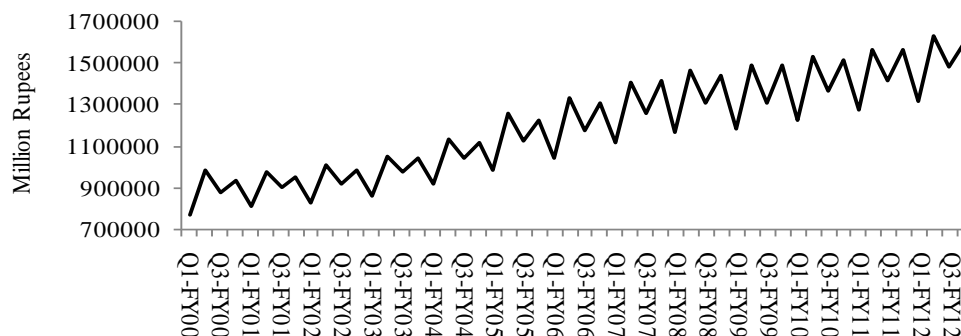
the year 1999-2000 for both studies. This approach can, therefore, be used to develop a combined dataset for 1972-1973 to 2011-2012.

The overall estimated quarterly gross value added by the services sector (at 1999-2000 prices) is shown below in figure 3. In figure 4, we have presented the time series plot of overall real quarterly GDP (FC).

**Figure 3: GVA of Services - Quarterly (1999-00 Prices)**



**Figure 4: Gross Domestic Product (FC)- Quarterly (1999-00 Prices)**



Evidently, the seasonal patterns of services sector are closest to those of overall GDP. The same thing can be observed by analyzing the seasonal dispersion.

#### **4. Methodology-Expenditure Side**

For the quarterisation of the expenditure side components of the annual national income accounts for 1972-1973 to 2011-2012, we assume production side quarterly GDP equals the sum of the quarterly components of national income. This assumption helps us find the

quarterly private consumption expenditure as a residual<sup>15</sup> once we estimate the quarterly public consumption expenditure, overall (private as well as government) investment and the import and export of goods and services. We can quarterise the annual components of GDP using either the direct or indirect way. We use the direct way when we have quarterly (or higher) frequency data, as in the case of exports and imports of goods and services. We use the indirect way, like the use of relevant indicators, when we do not have the required data available at a quarterly frequency, as is the case in public sector investment expenditure prior to Q1FY02. In the following we explain the procedure used to quarterise these annual components of GDP.

#### 4.1 Investment

Quarterly gross fixed capital formation (GFCF) has been estimated for 1971-1972 to 2005-2006 by Arby and Batool (2007). Using the commodity flow approach,<sup>16</sup> Arby and Batool (2007) disaggregated GFCF into four components; namely, machinery and equipment (M), furniture and fixture (R), land improvement (L) and structure (S). Machinery and equipment is further divided into imported machinery and equipment (MF) and domestic machinery and equipment (MD). That is:

$$GFCF_t = M_t + R_t + L_t + S_t ; \text{ where } M_t = MF_t + MD_t$$

These components are then quarterised using a combination of direct and indirect methods. For imported machinery and equipment, we already have quarterly imports from the monthly bulletin of PBS (under the heading ‘capital imports’). All other components are quarterised using the indirect method, i.e. on the basis of (quarterly) seasonality in the relevant indicator for which quarterly data are available. The following table shows the components, relevant indicators and their data sources. The last column of this table shows the deflator used for converting current prices into constant (1999-2000) prices.

<sup>15</sup> In the (annual) National Income Accounting System of Pakistan private consumption is actually treated as residual (see Baqai, 1963).

<sup>16</sup> Annual estimates of investment are computed by PBS using a combination of approaches .i.e. commodity flow, expenditure (survey) and financial. Essentially, each would result in the same amount of investment. The only feasible approach for quarterisation from already collected annual data is the commodity flow approach. Because, we cannot do the (past) quarterly surveys for assessment of investment; and a very limited number of firms in Pakistan have been publishing their accounts at higher than annual frequency (say, quarterly).

Investment Component	Relevant Indicator	High Frequency Data Source	Deflator
MF	Quarterly imported machinery and equipment	Monthly Bulletin of PBS	Unit values index of imports
MD	Quarterly LSM 'machinery and equipment' sub-index (estimated by using relevant items and their weights)	Monthly Bulletin of PBS	WPI manufacturing
S	Quarterly LSM 'building material' sub-index	Monthly Bulletin of PBS	WPI building material
L	Quarterly valued added of crops (with two quarters lead - assuming investment activity is undertaken before/during sowing of crops)	Arby (2008) and this study	WPI food
R	Five percent of quarterly 'structure' (as is the case with annual NIA estimates)	This study	WPI building material

Source: Arby and Batool (2007)

The quarterly GFCF is then estimated by summing the quarterly values of all these components. We estimated the GFCF, based upon both current prices and 1999-2000 prices. It also helped us estimate the overall investment deflator.

#### **4.1.1 Government Investment Expenditure**

The annual estimates of GFCF in Pakistan are primarily constructed separately for private and government sectors. The problem with Arby and Batool (2007) is that they quarterised overall GFCF rather than private and government investment separately. However, sometimes, researchers need to analyze private and public sector investment behaviour separately. In addition to estimating overall investment, we have also attempted to quarterise public sector investment separately.

Government investment is measured as total development expenditure (TDE) by the government. TDE includes the expenditure on the public sector development program (PSDP) and other development expenditure. Quarterly TDE data is available from the ministry of finance, government of Pakistan, since the first Q1FY02. The average quarterly proportion of Q1FY02 to Q4FY12 of TDE has been used to quarterise annual public sector investment for 1972-1973 to 2000-2001.

We have used the overall quarterly investment deflator (estimated as in section 4.1) to convert quarterly nominal government investment expenditure into quarterly government investment expenditure based on 1999-2000 prices.

Year	Actual Quarterly Shares of TDE			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
2001-02	10.9223	30.2384	32.8802	25.9590
2002-03	16.7900	23.0352	23.9633	36.2115
2003-04	15.4791	19.8790	17.5881	47.0538
2004-05	14.0419	21.7888	24.7082	39.4611
2005-06	13.8980	21.2423	20.7927	44.0670
2006-07	15.5550	18.8592	21.8977	43.6880
2007-08	24.5615	24.3882	23.4411	27.6093
2008-09	12.6446	16.8657	24.6720	45.8178
2009-10	17.7678	18.8569	20.0187	43.3566
2010-11	11.7365	16.8041	27.2178	44.2416
2011-12	12.1478	18.9589	26.4224	42.4709
<b>Average</b>	<b>15.0495</b>	<b>20.9924</b>	<b>23.9638</b>	<b>39.9942</b>

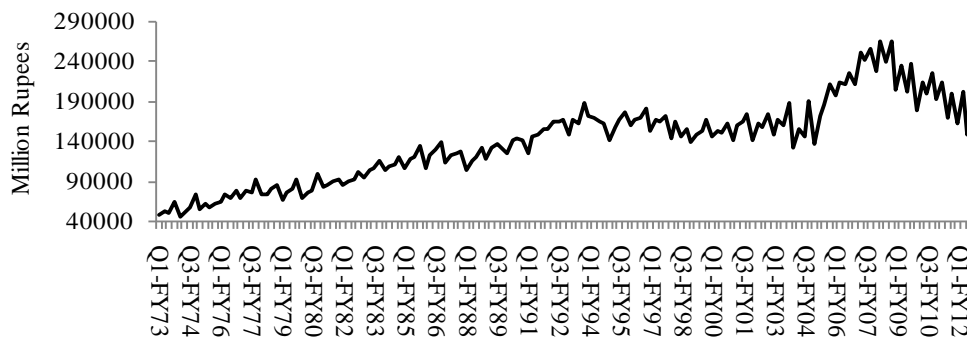
Source: authors' calculations

#### 4.1.2 Private Sector Investment

Subtracting the estimated quarterly public sector investment (from section 4.1.1) from overall quarterly investment, estimated in section 4.1, we obtain quarterly private sector investment.

Overall estimated quarterly gross fixed capital formation (at 1999-2000 prices) is shown below<sup>17</sup>:

Figure 5: Quarterly Real Total Gross Fixed Capital Formation



<sup>17</sup> One may be interested in knowing why there was stagnancy (fall) in investment in late 1990s (late 2010s) and what the implications were for income and thus consumption. Answering such questions need a thorough investigation and is beyond the scope of this study.



## 4.2 Imports and Exports of Goods and Services

The import of goods and services are the components where we directly estimate quarterly data using monthly statistics. Data on merchandise imports and exports are available from PBS in local currency (Pak Rupee). Data on non-factor services and other current transfers are obtained from SBP's monthly balance of payments statistics and are converted into local currency (Pak Rupee) by using the local currency per US\$ (average) exchange rate. The quarterly import and exports of goods and services are reported in Appendix E.

## 4.3 Government Consumption Expenditure

General Public Service Expenditures (GPSE) have been used to estimate government consumption expenditure (GCE). Quarterly data is available for GPSE from Q1FY02 onwards. GPSE comprises of interest payments (domestic as well as external debt servicing), pensions, grant to non-government (total grants/others) and other general public services. For 2001-2002 to 2011-2012, the quarterly share of GPSE has been used to quarterise the annual data of GCE. Data on GPSE is not available before Q1FY02. For that period, we need to find another indicator which correlates well with the quarterly pattern of GPSE. From the table (below) we can see that the quarterly pattern of GPSE is very close to the quarterly pattern of overall government tax revenues – it is the lowest in the first quarter and the highest in the last quarter, while it is equal to almost one-fourth in the middle two quarters.

Year	Share of GPSE				Share of Tax Revenues			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
2001-02	23.7361	21.8636	20.0619	34.3383	19.7085	23.9859	23.4805	32.8251
2002-03	23.1520	25.1034	24.7400	27.0046	20.1258	24.9209	22.9249	32.0284
2003-04	21.2113	26.5369	22.4539	29.7979	18.8727	25.5820	23.7300	31.8153
2004-05	20.2012	28.0886	25.5928	26.1175	21.2285	23.7306	23.5904	31.4506
2005-06	19.2950	29.3945	23.4479	27.8625	21.0408	24.5456	23.2561	31.1575
2006-07	16.9428	25.5767	27.1540	30.3265	21.5380	27.1813	22.5139	28.7668
2007-08	18.0272	26.9403	22.3037	32.7288	20.5177	22.3786	24.7881	32.3156
2008-09	20.3422	25.1254	24.3065	30.2259	22.9782	25.0011	22.5129	29.5077
2009-10	22.0936	23.4190	24.7729	29.7146	20.2864	24.3717	24.2302	31.1117
2010-11	18.7508	18.7022	21.6072	40.9398	18.6698	23.7925	23.3028	34.2349
2011-12	19.8868	22.9508	26.3998	30.7627	19.9215	24.1446	22.7463	33.1876
<b>Average</b>	<b>20.3308</b>	<b>24.8819</b>	<b>23.8946</b>	<b>30.8926</b>	<b>20.4444</b>	<b>24.5123</b>	<b>23.3706</b>	<b>31.6728</b>

Source: authors' calculations

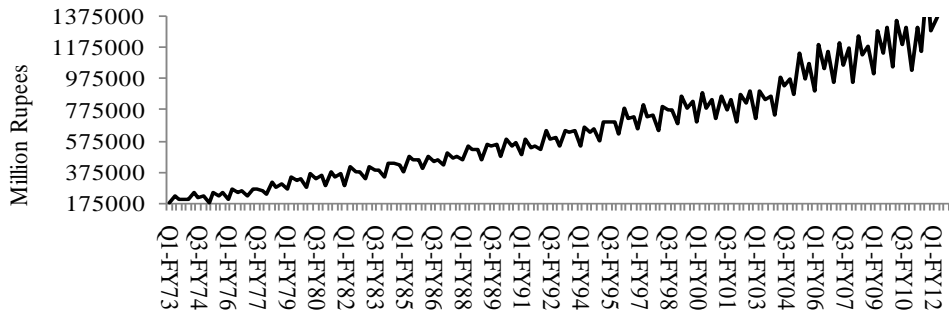
Thus, we can use the quarterly pattern of government overall tax revenues to quarterise annual GCE for the pre-Q1FY02 period. We have converted quarterly nominal GCE into quarterly GCE, based on 1999-2000 prices, using the consumer price index.

#### 4.4 Private Consumption Expenditure

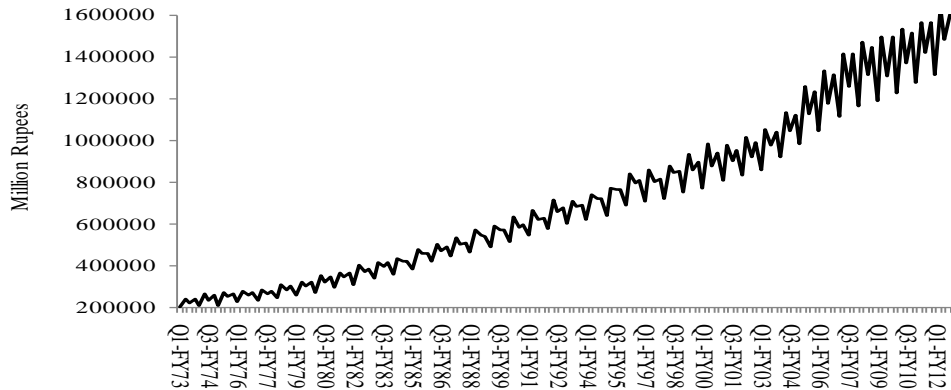
Quarterly private consumption expenditure (PCE) are obtained as a residual by subtracting the sum of quarterly GCE, overall investment and net exports, from the (production side) quarterly GDP provided in Appendix D.

The overall estimated quarterly real consumption is shown below in figure 6. In figure 7, we have presented the time series plot of overall real quarterly GDP (FC).

**Figure 6: Quarterly Overall Real Consumption**



**Figure 7: Quarterly Real GDP at Factor Cost**



#### 5. Concluding Remarks

Pakistan Bureau of Statistics (PBS) compiles NIAs for Pakistan on an annual basis. Despite the availability of some data on a higher frequency, such as large scale manufacturing output and merchandise trade, PBS does not provide NIA on a quarterly basis, which contains a more comprehensive picture of economy, than what is presented by indicators like the LSM index. In order to meet the needs of researchers, some studies in the past provided estimates of quarterly GDP but from the production side only. These studies include Bengaliwala

(1995), Kemal and Arby (2004), and Arby (2008). None of these studies provide estimates of quarterly GDP from the expenditure side.

Arby (2008) provides quarterly estimates of annual GDP from the production side (for 1971-1972 to 2004-2005) based on current as well as constant (1999-2000) prices. Realizing the need to provide quarterly production estimates for the last decade, this study provides quarterly estimates of (sectoral and overall) gross domestic production in Pakistan for the period 1999-2000 to 2011-2012, based on constant prices of 1999-2000, as well as on current prices, following Arby (2008). Quarterly GDP production side estimates for 1972-1973 to 1998-1999, based upon Arby (2008) and those for 1999-2000 to 2011-2012, based upon this study, are combined here to make a longer QGDP series from the production side. Finally, we also quarterise the expenditure side of NIAs. This is the first study which provides estimates of various components of expenditure side of Pakistan's GDP for 1972-1973 to 2011-2012.

This will also be useful for assessing, analyzing and monitoring the ongoing state and performance of economy by policymakers if PBS starts providing estimates of QNIA on a regular basis. Particularly, in an environment of high and variable inflation, QNIA are quite important from a policy point of view, since it is in these circumstances that one of the assumptions of ANIA (price homogeneity during the year) is violated, and aggregated current price data over a year may become less useful.

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**Appendix A: Quarterly GDP – Production Side (Real) for 1999-2000 to 2011-2012**

**Gross Domestic Product- Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	768,920	983,290	873,797	936,010	3,562,018
2000-01	807,466	977,510	897,929	949,186	3,632,091
2001-02	829,474	1,011,540	917,400	986,704	3,745,118
2002-03	857,833	1,050,535	974,514	1,039,222	3,922,104
2003-04	919,079	1,132,786	1,045,871	1,117,846	4,215,582
2004-05	983,493	1,256,764	1,124,251	1,228,723	4,593,230
2005-06	1,041,520	1,331,002	1,177,106	1,310,848	4,860,476
2006-07	1,113,882	1,410,238	1,255,378	1,412,211	5,191,709
2007-08	1,164,522	1,467,331	1,310,092	1,441,067	5,383,012
2008-09	1,187,247	1,492,680	1,304,320	1,491,470	5,475,716
2009-10	1,227,898	1,534,075	1,369,976	1,511,653	5,643,602
2010-11	1,272,372	1,561,260	1,418,361	1,563,036	5,815,029
2011-12	1,314,257	1,631,252	1,482,817	1,600,245	6,028,571

**Gross Value Added of Agriculture – Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	176,572	282,214	198,884	265,938	923,609
2000-01	175,820	278,982	197,187	251,510	903,499
2001-02	175,766	279,418	202,327	246,922	904,433
2002-03	180,757	288,148	210,502	262,535	941,942
2003-04	186,331	296,877	215,772	265,847	964,827
2004-05	196,641	325,611	217,846	287,305	1,027,403
2005-06	212,282	347,883	236,960	294,973	1,092,098
2006-07	214,773	353,830	251,170	317,264	1,137,037
2007-08	221,505	361,354	263,807	302,185	1,148,851
2008-09	227,244	371,884	262,679	333,196	1,195,002
2009-10	230,577	380,861	266,650	324,323	1,202,411
2010-11	231,279	377,292	279,491	342,915	1,230,978
2011-12	242,947	399,358	287,993	339,193	1,269,491

*Quarterisation of National Income Accounts of Pakistan*

**Gross Value Added of Major Crops - Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	34,469	117,955	42,346	147,430	342,200
2000-01	31,870	110,213	36,649	129,742	308,474
2001-02	30,854	107,350	39,324	123,383	300,911
2002-03	32,190	111,180	42,783	135,352	321,505
2003-04	32,739	115,139	43,501	135,678	327,057
2004-05	41,397	142,029	44,262	157,370	385,058
2005-06	40,544	140,017	40,865	148,579	370,005
2006-07	40,430	140,728	50,273	167,187	398,617
2007-08	37,339	137,963	52,837	145,049	373,188
2008-09	40,364	142,875	46,777	172,119	402,135
2009-10	41,638	145,740	45,625	159,980	392,983
2010-11	35,851	133,679	50,277	172,289	392,096
2011-12	41,870	148,184	51,617	162,906	404,577

**Gross Value Added of Minor Crops- Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	49,778	24,649	28,199	23,054	125,679
2000-01	47,991	23,798	27,262	22,622	121,673
2001-02	46,174	22,972	26,175	21,896	117,217
2002-03	46,858	23,478	26,741	22,369	119,446
2003-04	49,302	24,285	27,746	22,788	124,121
2004-05	50,370	24,834	28,369	22,419	125,993
2005-06	50,799	24,606	28,581	22,471	126,457
2006-07	49,973	24,423	28,387	22,460	125,243
2007-08	55,065	27,325	31,808	24,689	138,887
2008-09	53,937	27,076	31,436	24,752	137,201
2009-10	50,451	24,796	28,943	22,418	126,609
2010-11	51,625	25,216	29,820	23,337	129,999
2011-12	51,628	24,217	29,218	23,297	128,360

**Gross Value Added of Live Stocks - Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	85,510	129,307	116,794	85,510	417,120
2000-01	88,779	134,250	121,258	88,779	433,066
2001-02	92,038	139,180	125,711	92,038	448,968
2002-03	94,401	142,753	128,939	94,401	460,495
2003-04	97,118	146,861	132,649	97,118	473,745
2004-05	99,400	150,312	135,765	99,400	484,876
2005-06	115,108	174,065	157,220	115,108	561,500
2006-07	118,367	178,994	161,672	118,367	577,400
2007-08	123,289	186,436	168,394	123,289	601,408
2008-09	127,152	192,278	173,671	127,152	620,253
2009-10	132,591	200,503	181,099	132,591	646,783
2010-11	137,860	208,471	188,296	137,860	672,486
2011-12	143,424	216,885	195,896	143,424	699,629

**Gross Value Added of Fishing - Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	2,105	4,299	4,789	3,970	15,163
2000-01	2,043	4,172	4,647	3,853	14,715
2001-02	1,791	3,658	4,074	3,378	12,901
2002-03	1,853	3,784	4,215	3,495	13,346
2003-04	1,890	3,859	4,298	3,564	13,611
2004-05	1,901	3,882	4,324	3,585	13,691
2005-06	2,296	4,689	5,223	4,331	16,540
2006-07	2,649	5,410	6,026	4,996	19,080
2007-08	2,892	5,907	6,580	5,455	20,834
2008-09	2,960	6,044	6,733	5,582	21,319
2009-10	3,003	6,133	6,832	5,664	21,632
2010-11	3,061	6,252	6,964	5,774	22,051
2011-12	3,116	6,363	7,088	5,876	22,443



*Quarterisation of National Income Accounts of Pakistan*

**Gross Value Added of Forestry - Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	4,711	6,005	6,757	5,974	23,447
2000-01	5,137	6,549	7,370	6,515	25,571
2001-02	4,909	6,258	7,042	6,226	24,436
2002-03	5,454	6,953	7,825	6,918	27,150
2003-04	5,282	6,734	7,578	6,699	26,293
2004-05	3,573	4,555	5,126	4,532	17,785
2005-06	3,535	4,506	5,071	4,483	17,596
2006-07	3,354	4,276	4,812	4,254	16,697
2007-08	2,920	3,722	4,189	3,703	14,534
2008-09	2,831	3,609	4,062	3,591	14,094
2009-10	2,894	3,689	4,151	3,670	14,404
2010-11	2,882	3,674	4,135	3,655	14,346
2011-12	2,909	3,709	4,174	3,690	14,482

**Gross Value Added of Industry - Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	184,516	223,680	222,827	199,840	830,863
2000-01	201,834	212,577	229,531	221,254	865,196
2001-02	214,400	214,535	230,355	229,249	888,539
2002-03	211,024	220,866	250,551	243,742	926,183
2003-04	242,604	260,501	289,265	284,439	1,076,808
2004-05	269,031	297,285	329,424	311,528	1,207,268
2005-06	287,049	302,711	335,352	331,715	1,256,827
2006-07	321,990	326,136	360,230	359,176	1,367,532
2007-08	329,948	334,712	365,099	357,358	1,387,117
2008-09	341,416	332,955	354,347	356,950	1,385,669
2009-10	346,718	356,219	387,304	379,869	1,470,110
2010-11	356,695	354,267	395,061	374,745	1,480,768
2011-12	360,732	368,929	423,029	378,476	1,531,166

**Gross Value Added of Mining – Quarterly**

1999-2000 prices		Millions Rupees			
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	19,269	20,742	20,624	20,415	81,050
2000-01	20,387	22,526	20,983	21,632	85,528
2001-02	22,596	22,354	22,039	23,442	90,431
2002-03	22,980	23,618	24,405	25,414	96,418
2003-04	25,186	27,491	29,462	29,334	111,473
2004-05	27,769	28,774	36,531	29,547	122,621
2005-06	29,771	32,441	32,880	33,197	128,288
2006-07	31,931	32,972	33,647	33,703	132,254
2007-08	31,239	41,512	30,680	34,616	138,047
2008-09	36,928	30,400	33,199	36,820	137,348
2009-10	36,123	33,170	33,764	37,357	140,415
2010-11	36,762	34,670	32,387	34,797	138,616
2011-12	37,654	36,106	35,164	35,761	144,685

**Gross Value Added of Large scale manufacturing - Quarterly**

1999-2000 prices		Millions Rupees			
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	71,196	93,278	95,970	78,158	338,602
2000-01	85,298	92,230	103,563	94,596	375,687
2001-02	90,511	92,789	105,441	100,117	388,859
2002-03	92,118	98,223	117,961	108,653	416,955
2003-04	105,999	118,615	138,233	129,785	492,632
2004-05	126,004	146,204	162,364	156,187	590,759
2005-06	143,252	152,044	172,298	171,992	639,585
2006-07	161,160	163,081	184,889	186,358	695,489
2007-08	172,459	166,832	195,391	188,944	723,626
2008-09	162,631	160,994	171,578	170,082	665,285
2009-10	161,899	167,997	186,973	180,279	697,148
2010-11	167,628	167,478	191,292	178,741	705,139
2011-12	165,543	171,830	204,089	176,228	717,690

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**Gross Value Added of Small scale manufacturing- Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	38,730	50,743	52,208	42,518	184,199
2000-01	44,426	48,036	53,939	49,268	195,670
2001-02	48,410	49,629	56,395	53,548	207,982
2002-03	48,845	52,082	62,548	57,613	221,089
2003-04	50,523	56,536	65,887	61,860	234,807
2004-05	40,551	47,052	52,253	50,265	190,121
2005-06	46,286	49,127	55,671	55,572	206,656
2006-07	51,759	52,376	59,380	59,851	223,365
2007-08	57,231	55,364	64,842	62,702	240,139
2008-09	63,111	62,476	66,583	66,003	258,173
2009-10	64,458	66,886	74,441	71,776	277,562
2010-11	70,938	70,875	80,953	75,641	298,407
2011-12	74,000	76,810	91,231	78,776	320,817

**Gross Value Added of Slaughtering - Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	n.a	n.a	n.a	n.a	n.a
2000-01	n.a	n.a	n.a	n.a	n.a
2001-02	n.a	n.a	n.a	n.a	n.a
2002-03	n.a	n.a	n.a	n.a	n.a
2003-04	n.a	n.a	n.a	n.a	n.a
2004-05	10,685	14,841	20,777	13,060	59,363
2005-06	12,008	16,678	23,349	14,677	66,712
2006-07	12,500	17,362	24,306	15,278	69,447
2007-08	13,020	18,084	25,318	15,914	72,336
2008-09	13,570	18,847	26,386	16,585	75,388
2009-10	14,157	19,663	27,528	17,303	78,652
2010-11	14,777	20,524	28,734	18,061	82,097
2011-12	15,437	21,440	30,016	18,867	85,759

**Gross Value Added of Construction - Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	21,070	24,513	21,464	20,338	87,386
2000-01	22,173	20,102	22,954	22,618	87,846
2001-02	25,402	22,160	20,354	21,324	89,241
2002-03	22,812	22,566	22,566	24,845	92,789
2003-04	22,855	19,647	19,518	20,798	82,818
2004-05	28,155	24,388	23,402	22,246	98,190
2005-06	29,389	25,961	26,111	26,734	108,195
2006-07	37,058	32,640	31,786	33,052	134,536
2007-08	34,929	31,756	28,839	31,553	127,076
2008-09	31,670	26,582	24,748	29,883	112,884
2009-10	34,509	32,772	30,782	33,261	131,324
2010-11	33,597	27,580	30,330	30,504	122,010
2011-12	35,641	30,139	31,672	32,441	129,893

**Gross Value Added of Electricity, Gas & Water Supply - Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	34,250	34,404	32,561	38,411	139,626
2000-01	29,550	29,683	28,092	33,140	120,465
2001-02	27,480	27,603	26,124	30,818	112,026
2002-03	24,268	24,377	23,071	27,216	98,932
2003-04	38,041	38,211	36,164	42,662	155,078
2004-05	35,866	36,027	34,097	40,223	146,214
2005-06	26,343	26,461	25,044	29,543	107,391
2006-07	27,582	27,705	26,221	30,933	112,441
2007-08	21,070	21,164	20,030	23,629	85,893
2008-09	33,506	33,656	31,853	37,576	136,591
2009-10	35,571	35,730	33,816	39,892	145,009
2010-11	32,993	33,141	31,365	37,001	134,499
2011-12	32,459	32,604	30,857	36,402	132,322

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**Gross Value Added of Services - Quarterly**

1999-2000 prices

Millions Rupees

<b>Years\Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	407,832	477,396	452,086	470,232	180,7546
2000-01	429,812	485,951	471,211	476,422	186,3396
2001-02	439,307	517,587	484,719	510,533	195,2146
2002-03	466,053	541,520	513,461	532,945	205,3979
2003-04	490,145	575,408	540,834	567,560	217,3947
2004-05	517,821	633,867	576,981	629,890	235,8559
2005-06	542,189	680,408	604,794	684,160	251,1551
2006-07	577,118	730,272	643,979	735,771	268,7140
2007-08	613,069	771,265	681,185	781,525	284,7044
2008-09	618,587	787,841	687,293	801,324	289,5045
2009-10	650,603	796,995	716,022	807,461	297,1081
2010-11	684,397	829,701	743,809	845,376	310,3283
2011-12	710,578	862,966	771,794	882,576	322,7914

**Gross Value Added of Wholesale and Retail Trade - Quarterly**

1999-2000 prices

Millions Rupees

<b>Years\Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	128,205	176,072	159,197	158,367	621,842
2000-01	134,188	183,512	166,211	165,653	649,564
2001-02	137,834	188,739	170,856	170,187	667,615
2002-03	146,223	199,877	181,068	180,498	707,665
2003-04	158,800	215,967	196,052	195,874	766,693
2004-05	178,612	240,724	219,342	220,017	858,695
2005-06	176,235	232,227	213,590	216,375	838,426
2006-07	186,640	245,558	225,997	229,099	887,294
2007-08	198,667	255,249	237,279	243,035	934,231
2008-09	196,882	250,284	233,717	240,492	921,375
2009-10	206,049	261,018	244,107	251,565	962,739
2010-11	215,226	267,316	252,129	262,051	996,722
2011-12	224,442	274,563	260,678	272,706	1,032,389

**Gross Value Added of Transport, Storage and Communication -Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarter	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	97,621	99,653	101,287	102,421	400,983
2000-01	103,893	105,547	106,389	106,367	422,195
2001-02	106,068	106,108	106,856	108,264	427,296
2002-03	109,725	110,910	111,998	112,919	445,552
2003-04	113,837	114,809	115,820	116,810	461,276
2004-05	117,735	118,658	119,771	121,006	477,171
2005-06	122,147	123,224	124,578	126,124	496,073
2006-07	127,746	129,274	130,657	131,809	519,486
2007-08	132,971	134,207	135,462	136,657	539,297
2008-09	137,936	139,223	140,337	141,207	558,703
2009-10	141,055	142,170	142,890	143,169	569,285
2010-11	143,394	143,252	143,486	144,080	574,212
2011-12	144,409	144,591	145,453	146,943	581,396

**Gross Value Added of Finance and Insurance- Quarterly**

1999-2000 prices					Millions Rupees
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	22,710	40,579	26,290	42,874	132,454
2000-01	25,545	29,523	26,847	30,540	112,455
2001-02	18,292	43,626	23,166	46,677	131,761
2002-03	21,466	40,417	25,305	42,893	130,081
2003-04	20,571	46,253	25,555	49,389	141,768
2004-05	17,087	68,488	26,111	73,815	185,501
2005-06	21,965	100,059	35,278	107,754	265,056
2006-07	24,971	115,288	40,217	124,037	304,514
2007-08	29,798	126,723	45,956	135,909	338,386
2008-09	15,401	126,488	33,916	137,012	312,818
2009-10	19,446	106,354	34,159	114,816	274,774
2010-11	17,460	107,882	28,984	116,587	270,912
2011-12	17,452	115,839	29,992	125,312	288,595

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**Gross Value Added of Ownership of Dwelling- Quarterly**

1999-2000 prices					Millions Rupees
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	27,109	27,487	27,800	28,028	110,425
2000-01	28,260	28,521	28,783	29,029	114,593
2001-02	29,277	29,529	29,781	30,017	118,604
2002-03	30,244	30,475	30,736	31,011	122,466
2003-04	31,284	31,547	31,827	32,106	126,764
2004-05	32,382	32,655	32,944	33,233	131,214
2005-06	33,519	33,801	34,101	34,400	135,820
2006-07	34,695	34,987	35,298	35,607	140,587
2007-08	35,913	36,215	36,536	36,857	145,521
2008-09	37,173	37,486	37,819	38,150	150,629
2009-10	38,534	38,915	39,173	39,294	155,916
2010-11	39,356	39,471	39,738	40,142	158,707
2011-12	40,525	40,849	41,238	41,666	164,278

**Gross Value Added of Public Administration & Defense - Quarterly**

1999-2000 prices					Millions Rupees
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	53,751	53,751	56,394	56,394	220,291
2000-01	54,937	54,937	57,639	57,639	225,152
2001-02	58,703	58,703	61,590	61,590	240,585
2002-03	63,232	63,232	66,342	66,342	259,148
2003-04	65,226	65,226	68,434	68,434	267,321
2004-05	65,594	65,594	68,819	68,819	268,826
2005-06	72,214	72,214	75,766	75,766	295,959
2006-07	77,327	77,327	81,130	81,130	316,915
2007-08	78,218	78,218	82,065	82,065	320,565
2008-09	81,034	81,034	85,020	85,020	332,108
2009-10	83,076	83,076	87,162	87,162	340,475
2010-11	94,851	94,851	99,516	99,516	388,734
2011-12	97,329	97,329	102,115	102,115	398,888

**Gross Value Added of Social, Community & Personal Services- Quarterly**

1999-2000 prices					Millions Rupees
Years/Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	78,435	79,853	81,116	82,147	321,551
2000-01	82,990	83,910	85,342	87,195	339,437
2001-02	89,133	90,883	92,471	93,798	366,285
2002-03	95,161	96,610	98,013	99,282	389,067
2003-04	100,426	101,607	103,145	104,946	410,125
2004-05	106,411	107,750	109,992	112,999	437,152
2005-06	116,110	118,884	121,482	123,742	480,217
2006-07	125,738	127,838	130,680	134,088	518,344
2007-08	137,502	140,653	143,887	147,003	569,044
2008-09	150,160	153,325	156,485	159,443	619,412
2009-10	162,443	165,462	168,530	171,456	667,892
2010-11	174,110	176,929	179,956	183,000	713,996
2011-12	186,420	189,795	192,319	193,834	762,368

**Appendix B: Quarterly GDP – Production Side (Nominal) for 1999-2000 to 2011-2012**  
**Gross Domestic Product- Quarterly**

					Millions Rupees
Years/Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	752,872	972,126	876,959	960,062	3,562,020
2000-01	858,723	1,052,407	985,406	1,026,708	3,923,244
2001-02	915,904	1,116,714	1,011,817	1,101,731	4,146,167
2002-03	981,429	1,194,742	1,137,084	1,220,964	4,534,218
2003-04	1,100,526	1,405,117	1,305,277	1,439,606	5,250,527
2004-05	1,276,699	1,637,207	1,523,176	1,685,485	6,122,568
2005-06	1,502,955	1,940,036	1,765,202	1,950,334	7,158,527
2006-07	1,744,215	2,220,823	2,010,941	2,259,121	8,235,099
2007-08	1,987,710	2,618,319	2,482,126	2,833,429	9,921,584
2008-09	2,587,647	3,275,210	2,876,880	3,370,725	12,110,462
2009-10	2,862,297	3,694,812	3,465,574	4,010,946	14,033,629
2010-11	3,522,256	4,602,866	4,322,985	4,644,795	17,092,903
2011-12	4,091,914	5,155,847	4,863,966	5,325,099	19,436,825



*Quarterisation of National Income Accounts of Pakistan***Gross Value Added of Agriculture – Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	175,479	279,932	198,873	269,325	923,609
2000-01	183,355	292,216	208,156	261,574	945,301
2001-02	189,155	300,403	216,762	261,971	968,291
2002-03	201,405	323,052	235,086	299,773	1,059,316
2003-04	208,485	362,362	259,131	334,773	1,164,751
2004-05	241,824	412,531	279,071	380,808	1,314,234
2005-06	282,642	455,823	320,981	397,776	1,457,222
2006-07	314,781	515,696	379,287	475,476	1,685,240
2007-08	361,656	620,153	460,817	574,556	2,017,181
2008-09	450,764	826,252	564,749	769,761	2,611,526
2009-10	513,755	916,303	655,694	886,908	2,972,660
2010-11	621,211	1,128,308	825,187	1,122,361	3,697,068
2011-12	731,137	1,213,645	901,107	1,053,424	3,899,313

**Gross Value Added of Major Crops - Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	34,126	115,664	42,550	149,860	342,200
2000-01	32,694	117,460	39,366	136,059	325,579
2001-02	31,184	114,176	42,173	129,324	316,857
2002-03	35,918	127,878	49,984	156,337	370,117
2003-04	37,467	144,955	57,213	172,201	411,836
2004-05	51,762	179,087	58,421	208,286	497,556
2005-06	49,479	168,842	53,573	192,382	464,276
2006-07	51,055	185,323	70,491	239,549	546,418
2007-08	58,148	231,874	93,143	288,209	671,374
2008-09	93,519	346,525	114,927	424,178	979,148
2009-10	100,250	364,943	131,363	475,608	1,072,164
2010-11	112,088	462,959	195,889	639,175	1,410,112
2011-12	124,206	433,710	152,450	481,318	1,191,683

**Gross Value Added of Minor Crops- Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	48,747	24,455	28,301	24,176	125,679
2000-01	51,267	25,246	30,648	23,517	130,679
2001-02	53,842	26,727	27,654	24,913	133,136
2002-03	53,867	26,458	26,998	23,127	130,450
2003-04	48,546	26,568	27,302	23,955	126,372
2004-05	60,210	31,096	33,054	29,858	154,218
2005-06	68,771	33,210	37,032	29,448	168,461
2006-07	73,453	38,789	40,474	31,405	184,121
2007-08	82,213	43,350	47,288	38,703	211,553
2008-09	91,782	50,548	51,925	43,280	237,536
2009-10	103,120	53,578	58,757	51,064	266,519
2010-11	143,276	79,262	75,869	59,467	357,874
2011-12	155,164	75,344	80,152	71,527	382,187

**Gross Value Added of Live Stocks - Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	85,862	129,669	116,435	85,154	417,120
2000-01	91,806	138,146	125,242	90,864	446,058
2001-02	96,725	148,282	134,410	96,893	476,310
2002-03	103,546	156,758	144,338	108,335	512,976
2003-04	114,343	178,045	160,016	125,814	578,218
2004-05	122,792	191,670	175,239	131,470	621,170
2005-06	154,947	238,455	212,532	160,514	766,448
2006-07	178,560	271,944	246,413	184,890	881,806
2007-08	208,091	322,454	295,079	225,818	1,051,442
2008-09	251,236	403,590	368,428	276,611	1,299,865
2009-10	294,921	470,870	434,549	333,381	1,533,721
2010-11	349,114	556,747	520,167	395,130	1,821,158
2011-12	432,107	673,047	631,602	467,495	2,204,251

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**Gross Value Added of Fishing - Quarterly**

Millions Rupees					
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	2,089	4,194	4,805	4,076	15,163
2000-01	2,372	4,645	5,243	4,286	16,546
2001-02	2,246	4,671	5,132	4,328	16,377
2002-03	2,323	4,569	5,340	4,393	16,625
2003-04	2,510	5,031	5,156	4,031	16,728
2004-05	2,378	4,663	5,445	5,004	17,490
2005-06	4,216	8,477	9,692	8,106	30,492
2006-07	6,008	12,087	13,053	11,520	42,668
2007-08	7,413	15,030	16,402	13,547	52,391
2008-09	7,471	16,614	19,098	16,331	59,514
2009-10	7,661	16,781	19,493	16,428	60,363
2010-11	8,211	17,969	19,538	15,708	61,426
2011-12	8,463	16,953	19,687	17,377	62,480

**Gross Value Added of Forestry - Quarterly**

Millions Rupees					
Years\Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	4,655	5,951	6,782	6,059	23,447
2000-01	5,215	6,719	7,658	6,847	26,439
2001-02	5,159	6,547	7,393	6,512	25,611
2002-03	5,752	7,389	8,427	7,580	29,148
2003-04	5,618	7,762	9,444	8,773	31,597
2004-05	4,682	6,015	6,912	6,191	23,800
2005-06	5,228	6,839	8,152	7,326	27,545
2006-07	5,706	7,553	8,857	8,111	30,227
2007-08	5,791	7,445	8,904	8,281	30,421
2008-09	6,756	8,975	10,370	9,361	35,463
2009-10	7,804	10,130	11,533	10,427	39,893
2010-11	8,521	11,372	13,724	12,881	46,498
2011-12	11,197	14,591	17,216	15,708	58,712

**Gross Value Added of Industry - Quarterly**

Millions Rupees					
Years/Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	181,020	224,055	223,080	202,710	830,865
2000-01	213,634	231,442	251,363	245,824	942,263
2001-02	241,772	237,582	253,554	256,441	989,349
2002-03	242,957	254,607	295,086	291,264	1,083,914
2003-04	304,347	337,948	388,182	386,509	1,416,986
2004-05	364,281	402,605	458,363	434,037	1,659,285
2005-06	429,815	457,148	519,201	517,535	1,923,698
2006-07	521,141	527,599	582,348	583,523	2,214,612
2007-08	602,964	623,270	704,524	727,447	2,658,205
2008-09	760,148	718,332	749,155	767,340	2,994,975
2009-10	784,351	828,566	966,565	989,737	3,569,218
2010-11	925,474	995,028	1,184,878	1,158,915	4,264,295
2011-12	1,124,428	1,174,340	1,397,352	1,269,594	4,965,714

**Gross Value Added of Mining – Quarterly**

Millions Rupees					
Years/Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	17,635	21,290	21,169	20,958	81,052
2000-01	23,527	27,065	26,331	29,447	106,370
2001-02	29,289	28,891	28,526	30,247	116,952
2002-03	32,372	33,446	34,885	36,341	137,044
2003-04	46,854	51,495	55,107	54,833	208,290
2004-05	39,833	41,362	55,173	45,683	182,051
2005-06	47,401	51,888	59,989	60,404	219,682
2006-07	63,575	65,728	62,720	60,518	252,541
2007-08	66,588	88,262	68,876	77,743	301,469
2008-09	91,780	75,401	84,551	94,680	346,412
2009-10	104,237	95,132	113,158	125,372	437,899
2010-11	104,330	97,815	90,850	98,272	391,267
2011-12	104,406	103,723	118,316	120,081	446,526

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**Gross Value Added of Large scale manufacturing - Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	70,705	93,807	95,613	78,476	338,602
2000-01	91,413	100,882	114,046	104,538	410,879
2001-02	99,882	100,833	114,142	109,232	424,089
2002-03	104,214	111,193	136,961	129,006	481,374
2003-04	126,107	147,891	178,801	169,100	621,899
2004-05	173,550	198,651	225,110	217,345	814,657
2005-06	221,245	236,366	271,364	274,086	1,003,062
2006-07	266,035	267,057	304,425	312,056	1,149,573
2007-08	336,136	329,133	399,694	402,262	1,467,225
2008-09	373,121	364,676	380,511	384,570	1,502,879
2009-10	386,216	419,343	496,617	504,900	1,807,076
2010-11	485,501	536,474	663,650	643,519	2,329,144
2011-12	598,859	627,122	761,053	674,851	2,661,885

**Gross Value Added of Small scale manufacturing- Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	38464	51031	52013	42691	184199
2000-01	43,885	48,431	54,751	50,186	197,253
2001-02	51,523	52,014	58,879	56,346	218,761
2002-03	52,837	56,376	69,440	65,407	244,060
2003-04	56,897	66,725	80,671	76,294	280,587
2004-05	47,331	54,177	61,393	59,275	222,176
2005-06	54,252	57,960	66,542	67,209	245,962
2006-07	64,785	65,033	74,133	75,992	279,943
2007-08	76,658	75,061	91,153	91,738	334,610
2008-09	98,068	95,849	100,011	101,077	395,005
2009-10	96,162	104,410	123,650	125,712	449,933
2010-11	115,266	127,368	157,561	152,782	552,977
2011-12	146,979	153,916	186,787	165,630	653,312

**Gross Value Added of Slaughtering - Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	n.a	n.a	n.a	n.a	n.a
2000-01	n.a	n.a	n.a	n.a	n.a
2001-02	n.a	n.a	n.a	n.a	n.a
2002-03	n.a	n.a	n.a	n.a	n.a
2003-04	n.a	n.a	n.a	n.a	n.a
2004-05	17,964	24,950	34,930	21,956	99,801
2005-06	21,918	30,442	42,619	26,789	121,769
2006-07	24,803	34,449	48,229	30,315	137,797
2007-08	26,764	37,172	52,040	32,711	148,687
2008-09	30,888	42,900	60,059	37,752	171,598
2009-10	40,984	56,923	79,692	50,092	227,690
2010-11	53,975	74,965	104,951	65,969	299,859
2011-12	68,268	94,817	132,743	83,439	379,267

**Gross Value Added of Construction - Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	20,996	24,311	21,546	20,533	87,386
2000-01	23,759	21,796	24,663	24,453	94,670
2001-02	27,147	23,592	21,624	22,833	95,197
2002-03	24,405	24,055	24,604	27,816	100,880
2003-04	30,089	25,624	28,526	31,258	115,497
2004-05	43,167	38,481	37,105	34,581	153,333
2005-06	49,051	43,160	42,356	45,318	179,885
2006-07	60,438	53,439	54,187	57,175	225,239
2007-08	65,155	59,775	59,131	76,279	260,340
2008-09	88,337	72,158	62,480	72,015	294,990
2009-10	82,598	74,405	74,189	88,123	319,315
2010-11	88,320	74,741	83,818	90,114	336,993
2011-12	106,999	94,607	101,791	107,465	410,863

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**Gross Value Added of Electricity, Gas & Water Supply - Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	33,221	33,616	32,738	40,052	139,626
2000-01	31,051	33,267	31,573	37,200	133,091
2001-02	33,931	32,252	30,384	37,783	134,350
2002-03	29,129	29,537	29,195	32,694	120,556
2003-04	44,400	46,212	45,077	55,024	190,713
2004-05	42,436	44,984	44,651	55,196	187,267
2005-06	35,947	37,333	36,330	43,728	153,338
2006-07	41,504	41,893	38,654	47,467	169,519
2007-08	31,663	33,867	33,630	46,714	145,874
2008-09	77,955	67,349	61,543	77,245	284,091
2009-10	74,154	78,354	79,259	95,537	327,305
2010-11	78,083	83,665	84,048	108,259	354,055
2011-12	98,916	100,154	96,663	118,128	413,861

**Gross Value Added of Services - Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	396,372	468,139	455,007	488,027	1,807,546
2000-01	461,734	528,749	525,886	519,310	2,035,680
2001-02	484,977	578,730	541,501	583,319	2,188,527
2002-03	537,067	617,082	606,912	629,927	2,390,988
2003-04	587,694	704,808	657,964	718,324	2,668,790
2004-05	670,594	822,072	785,743	870,640	3,149,049
2005-06	790,498	1,027,065	925,020	1,035,023	3,777,607
2006-07	908,292	1,177,528	1,049,306	1,200,122	4,335,247
2007-08	1,023,090	1,374,896	1,316,786	1,531,426	5,246,198
2008-09	1,376,734	1,730,626	1,562,977	1,833,624	6,503,961
2009-10	1,564,191	1,949,942	1,843,315	2,134,302	7,491,751
2010-11	1,975,570	2,479,530	2,312,920	2,363,519	9,131,540
2011-12	2,236,349	2,767,862	2,565,507	3,002,080	10571,798

**Gross Value Added of Wholesale and Retail Trade - Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	122,265	169,994	162,458	167,125	621,842
2000-01	140,938	196,054	187,371	167,490	691,854
2001-02	140,715	207,088	183,717	189,292	720,812
2002-03	159,276	211,947	206,122	208,431	785,776
2003-04	179,602	256,975	221,180	238,599	896,357
2004-05	217,469	296,205	289,738	289,702	1,093,114
2005-06	250,832	360,825	329,483	320,861	1,262,001
2006-07	277,214	402,347	373,469	388,756	1,441,786
2007-08	316,915	495,769	520,759	496,501	1,829,944
2008-09	424,932	552,944	550,281	576,179	2,104,337
2009-10	490,049	650,998	638,826	683,767	2,463,640
2010-11	617,871	832,203	831,082	830,969	3,112,125
2011-12	731,638	954,683	905,793	981,987	3,574,101

**Gross Value Added of Transport, Storage and Communication -Quarterly**

Millions Rupees					
<b>Years/Quarter</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	94,220	97,036	100,546	109,181	400,983
2000-01	121,688	126,111	129,737	135,461	512,997
2001-02	135,498	132,293	134,382	140,656	542,828
2002-03	148,105	150,907	156,681	154,236	609,929
2003-04	161,541	166,211	170,982	176,888	675,623
2004-05	179,499	181,433	193,347	205,432	759,711
2005-06	214,575	226,296	230,487	237,051	908,409
2006-07	252,543	256,368	252,308	250,987	1,012,206
2007-08	268,272	271,513	285,635	330,454	1,155,873
2008-09	415,335	396,263	385,309	391,028	1,587,934
2009-10	427,134	438,797	466,069	500,760	1,832,760
2010-11	537,786	553,182	561,142	491,294	2,143,403
2011-12	581,262	593,866	627,515	674,147	2,476,789



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**Gross Value Added of Finance and Insurance- Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	22,304	40,392	26,284	43,475	132,454
2000-01	26,250	30,803	27,995	31,949	116,997
2001-02	19,525	46,896	25,036	50,967	142,424
2002-03	23,821	44,962	28,233	47,974	144,989
2003-04	23,118	53,441	29,769	58,902	165,230
2004-05	20,916	85,597	33,245	96,496	236,254
2005-06	29,260	135,567	48,547	150,946	364,320
2006-07	35,790	167,930	58,888	184,662	447,270
2007-08	45,141	198,481	74,674	238,382	556,679
2008-09	29,232	247,857	66,655	277,765	621,508
2009-10	40,901	229,511	76,111	263,421	609,944
2010-11	44,722	287,623	78,400	274,365	685,110
2011-12	47,315	316,472	83,377	360,643	807,807

**Gross Value Added of Ownership of Dwelling- Quarterly**

Millions Rupees					
<b>Years/Quarters</b>	<b>Jul-Sep</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-Jun</b>	<b>Annual</b>
1999-00	26,705	27,367	27,966	28,387	110,425
2000-01	30,360	30,886	31,329	31,784	124,359
2001-02	31,088	31,455	31,810	32,100	126,454
2002-03	33,271	33,573	33,902	34,394	135,139
2003-04	35,064	35,893	36,970	38,337	146,264
2004-05	39,057	40,566	42,163	43,656	165,441
2005-06	44,269	45,652	46,849	48,041	184,812
2006-07	49,759	50,900	52,071	53,436	206,166
2007-08	56,514	58,416	60,700	63,379	239,010
2008-09	68,864	72,811	76,758	80,356	298,789
2009-10	82,428	85,464	88,040	89,827	345,760
2010-11	99,216	100,918	103,663	97,558	401,354
2011-12	111,606	111,981	115,799	120,443	459,829

**Gross Value Added of Public Administration & Defense - Quarterly**

Millions Rupees					
Years/Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	52,892	53,608	56,492	57,298	220,291
2000-01	56,662	57,531	60,324	60,522	235,039
2001-02	62,771	63,216	66,683	67,371	260,042
2002-03	69,468	69,643	73,280	73,463	285,854
2003-04	73,800	75,876	80,261	82,169	312,105
2004-05	81,116	82,821	88,522	90,889	343,348
2005-06	96,242	97,887	104,313	106,185	404,628
2006-07	111,939	113,765	119,987	121,995	467,685
2007-08	121,186	125,295	136,379	147,213	530,074
2008-09	156,323	161,391	169,826	175,184	662,723
2009-10	176,809	181,400	196,509	202,343	757,061
2010-11	239,241	249,012	265,065	230,607	983,924
2011-12	266,679	268,732	286,903	297,014	1,119,328

**Gross Value Added of Social, Community & Personal Services- Quarterly**

Millions Rupees					
Years/Quarters	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Annual
1999-00	77,987	79,742	81,261	82,561	321,551
2000-01	85,837	87,364	89,130	92,104	354,434
2001-02	95,380	97,781	99,873	102,933	395,967
2002-03	103,126	106,051	108,694	111,430	429,301
2003-04	114,569	116,412	118,802	123,429	473,211
2004-05	132,537	135,451	138,728	144,466	551,181
2005-06	155,319	160,838	165,341	171,939	653,437
2006-07	181,047	186,219	192,582	200,286	760,134
2007-08	215,061	225,422	238,639	255,496	934,618
2008-09	282,049	299,360	314,149	333,112	1,228,670
2009-10	346,870	363,772	377,761	394,183	1,482,586
2010-11	436,735	456,592	473,570	438,727	1,805,624
2011-12	497,849	522,127	546,121	567,847	2,133,944

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**Appendix C: Quarterly GDP (Factor Cost) Proportions (for 1972-1973 to 1998-1999 based on Arby (2008) and for 1999-2000 to 2011-2012 based on this study)**

Years\ Quarters	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	0.211510	0.257763	0.246528	0.284199	0.223577	0.268569	0.245659	0.262194
1973-74	0.202822	0.266895	0.240065	0.290219	0.218210	0.272411	0.240242	0.269138
1974-75	0.199264	0.267642	0.251219	0.281876	0.208931	0.274164	0.250081	0.266825
1975-76	0.213130	0.264931	0.251225	0.270714	0.218286	0.268025	0.251315	0.262374
1976-77	0.214478	0.262414	0.253655	0.269453	0.219222	0.265568	0.250809	0.264401
1977-78	0.219465	0.266958	0.249522	0.264054	0.215715	0.270684	0.249207	0.264394
1978-79	0.213691	0.259202	0.251990	0.275117	0.214725	0.264362	0.252276	0.268637
1979-80	0.209680	0.264648	0.249537	0.276135	0.209649	0.271386	0.251175	0.267790
1980-81	0.208401	0.263086	0.251203	0.277309	0.214918	0.268137	0.251222	0.265723
1981-82	0.211528	0.270192	0.254347	0.263933	0.211710	0.273384	0.254452	0.260454
1982-83	0.215890	0.262967	0.253011	0.268132	0.217331	0.266233	0.253272	0.263163
1983-84	0.215986	0.259303	0.264476	0.260235	0.219536	0.263999	0.259239	0.257226
1984-85	0.217258	0.266643	0.256634	0.259465	0.214509	0.268704	0.258126	0.258660
1985-86	0.222873	0.264456	0.251204	0.261468	0.221787	0.266791	0.249989	0.261433
1986-87	0.220312	0.264124	0.254586	0.260979	0.223766	0.268435	0.252619	0.255180
1987-88	0.220121	0.263520	0.258525	0.257833	0.219754	0.268230	0.257989	0.254027
1988-89	0.219984	0.260004	0.256738	0.263273	0.219848	0.265161	0.256860	0.258131
1989-90	0.220852	0.266523	0.251610	0.261015	0.221335	0.271521	0.251531	0.255613
1990-91	0.216607	0.263496	0.255291	0.264606	0.221298	0.269805	0.252588	0.256309
1991-92	0.218910	0.266775	0.252339	0.261976	0.220194	0.271636	0.251483	0.256688
1992-93	0.222154	0.259050	0.256146	0.262650	0.224320	0.263396	0.254263	0.258021
1993-94	0.209786	0.255068	0.259653	0.275492	0.220786	0.265342	0.256591	0.257280
1994-95	0.209401	0.259193	0.263969	0.267437	0.217909	0.263157	0.259162	0.259773
1995-96	0.211150	0.263230	0.257978	0.267643	0.219349	0.267920	0.254506	0.258225
1996-97	0.211879	0.264120	0.258478	0.265523	0.222053	0.270294	0.251934	0.255718
1997-98	0.213540	0.266491	0.256743	0.263226	0.218103	0.266756	0.256312	0.258829
1998-99	0.203781	0.255982	0.238425	0.301813	0.219107	0.270836	0.249486	0.260571
1999-00	0.211361	0.272914	0.246197	0.269527	0.215866	0.276049	0.245310	0.262775
2000-01	0.218881	0.268249	0.251171	0.261699	0.222314	0.269131	0.247221	0.261333
2001-02	0.220904	0.269337	0.244037	0.265723	0.221481	0.270096	0.244959	0.263464
2002-03	0.216449	0.263495	0.250778	0.269278	0.218717	0.267850	0.248467	0.264965
2003-04	0.209603	0.267615	0.248599	0.274183	0.218020	0.268714	0.248096	0.265170
2004-05	0.208523	0.267405	0.248781	0.275291	0.214118	0.273612	0.244763	0.267507
2005-06	0.209953	0.271011	0.246587	0.272449	0.214284	0.273842	0.242179	0.269695
2006-07	0.211803	0.269678	0.244191	0.274328	0.214550	0.271633	0.241804	0.272013
2007-08	0.200342	0.263901	0.250174	0.285582	0.216333	0.272586	0.243375	0.267707
2008-09	0.213670	0.270445	0.237553	0.278332	0.216820	0.272600	0.238201	0.272379
2009-10	0.203960	0.263283	0.246948	0.285810	0.217574	0.271826	0.242748	0.267852
2010-11	0.206065	0.269285	0.252911	0.271738	0.218807	0.268487	0.243913	0.268793
2011-12	0.210524	0.265262	0.250245	0.273970	0.218005	0.270587	0.245965	0.265444

**Appendix D: Quarterly GDP (Factor Cost) based on proportion in Appendix C**

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	15,675	19,103	18,271	21,062	200,136	240,411	219,903	234,705
1973-74	19,889	26,172	23,541	28,459	209,030	260,951	230,136	257,817
1974-75	25,418	34,141	32,046	35,956	206,662	271,187	247,366	263,928
1975-76	31,546	39,214	37,185	40,070	223,186	274,041	256,956	268,264
1976-77	35,476	43,405	41,956	44,569	230,440	279,157	263,644	277,931
1977-78	42,049	51,149	47,808	50,592	244,529	306,841	282,494	299,711
1978-79	49,249	59,738	58,076	63,406	256,960	316,361	301,898	321,476
1979-80	54,338	68,583	64,667	71,560	268,228	347,216	321,357	342,614
1980-81	62,961	79,483	75,892	83,780	292,040	364,355	341,371	361,075
1981-82	75,335	96,228	90,585	93,999	309,434	399,576	371,905	380,677
1982-83	86,431	105,278	101,292	107,346	339,285	415,627	395,393	410,835
1983-84	98,564	118,332	120,693	118,758	356,268	428,424	420,698	417,432
1984-85	112,577	138,167	132,980	134,447	378,424	474,032	455,371	456,313
1985-86	126,695	150,333	142,800	148,634	416,159	500,605	469,077	490,552
1986-87	138,429	165,957	159,964	163,981	444,271	532,958	501,556	506,640
1987-88	161,277	193,074	189,415	188,908	464,386	566,827	545,185	536,813
1988-89	183,197	216,525	213,804	219,247	486,924	587,283	568,899	571,714
1989-90	204,572	246,877	233,064	241,775	512,711	628,966	582,659	592,115
1990-91	239,859	291,781	282,695	293,010	541,167	659,785	617,682	626,782
1991-92	287,660	350,557	331,588	344,251	576,804	711,558	658,767	672,403
1992-93	322,633	376,216	371,999	381,445	599,940	704,445	680,020	690,071
1993-94	358,254	435,583	443,412	470,461	616,283	740,654	716,225	718,150
1994-95	426,804	528,289	538,024	545,091	639,041	771,735	760,021	761,811
1995-96	496,754	619,278	606,923	629,660	685,715	837,553	795,620	807,245
1996-97	575,103	716,898	701,583	720,707	705,988	859,363	800,989	813,021
1997-98	645,808	805,949	776,468	796,072	717,656	877,747	843,381	851,662
1998-99	679,655	853,756	795,199	1,006,615	751,122	928,457	855,266	893,266
1999-00	752,872	972,126	876,959	960,062	768,920	983,290	873,797	936,010
2000-01	858,723	1,052,407	985,406	1,026,708	807,466	977,510	897,929	949,186
2001-02	915,904	1,116,714	1,011,817	1,101,731	829,474	1,011,540	917,400	986,704
2002-03	981,429	1,194,742	1,137,084	1,220,964	857,833	1,050,535	974,514	1,039,222
2003-04	1,100,526	1,405,117	1,305,277	1,439,606	919,079	1,132,786	1,045,87,1	1,117,846
2004-05	1,276,699	1,637,207	1,523,176	1,685,485	983,493	1,256,764	1,124,25,1	1,228,723
2005-06	1,502,955	1,940,036	1,765,202	1,950,334	1,041,520	1,331,002	1,177,106	1,310,848
2006-07	1,744,215	2,220,823	2,010,941	2,259,121	1,113,882	1,410,238	1,255,378	1,412,211
2007-08	1,987,710	2,618,319	2,482,126	2,833,429	1,164,522	1,467,331	1,310,092	1,441,067
2008-09	2,587,647	3,275,210	2,876,880	3,370,725	1,187,247	1,492,680	1,304,320	1,491,470
2009-10	2,862,297	3,694,812	3,465,574	4,010,946	1,227,898	1,534,075	1,369,976	1,511,653
2010-11	3,522,256	4,602,866	4,322,985	4,644,795	1,272,372	1,561,260	1,418,361	1,563,036
2011-12	4,091,914	5,155,847	4,863,966	5,325,099	1,314,257	1,631,252	1,482,817	1,600,245

*Quarterisation of National Income Accounts of Pakistan*

**Appendix E1: Quarterly Total Consumption**

Years\Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	14,551	17,989	17,111	19,345	179,425	220,284	198,887	205,072
1973-74	20,374	24,259	23,333	26,178	200,857	248,502	212,826	225,505
1974-75	23,910	33,074	31,571	36,103	179,833	248,307	225,637	244,232
1975-76	29,618	38,617	35,833	38,590	205,251	265,742	249,372	255,071
1976-77	34,824	42,043	41,825	42,654	224,424	272,600	262,522	261,041
1977-78	41,314	51,281	49,258	49,448	235,807	313,265	283,525	298,585
1978-79	46,111	59,413	56,569	58,846	265,950	340,735	320,230	329,384
1979-80	55,119	69,866	62,325	78,036	279,099	369,656	338,517	355,302
1980-81	64,204	80,454	73,264	84,629	289,202	378,956	345,536	372,184
1981-82	72,935	100,785	90,093	92,333	293,359	411,267	373,577	375,749
1982-83	88,740	108,264	102,806	98,764	329,885	415,135	392,669	395,190
1983-84	98,561	115,577	127,738	120,453	347,941	432,102	437,549	420,056
1984-85	120,339	135,159	134,356	138,315	380,395	477,345	461,504	456,826
1985-86	125,932	143,210	136,885	139,018	397,605	476,846	443,868	461,546
1986-87	129,729	157,379	146,308	151,238	418,837	502,679	466,069	476,851
1987-88	157,926	180,282	176,727	182,649	451,991	547,980	522,121	517,461
1988-89	169,593	203,630	207,562	209,640	454,492	553,720	546,300	553,509
1989-90	193,805	235,505	216,937	227,893	475,205	592,944	547,200	563,038
1990-91	226,690	269,044	244,673	255,210	490,221	588,987	530,295	542,510
1991-92	269,706	319,447	297,250	306,379	527,351	643,784	593,548	603,177
1992-93	295,357	341,458	351,625	360,787	545,374	640,384	638,435	638,778
1993-94	325,736	396,735	392,079	429,920	546,116	663,339	636,115	657,142
1994-95	383,544	478,521	509,969	497,875	577,010	694,731	703,913	698,976
1995-96	455,976	586,345	547,138	565,188	625,335	785,655	721,824	731,316
1996-97	527,932	675,667	642,935	663,698	657,288	806,543	731,567	746,566
1997-98	554,664	736,382	682,132	686,359	649,189	802,256	772,155	780,552
1998-99	585,708	776,001	710,109	952,700	691,214	864,851	786,003	837,833
1999-00	687,954	851,970	823,615	851,173	694,194	892,360	787,287	840,870
2000-01	801,207	916,138	907,825	913,486	718,169	869,092	781,288	843,268
2001-02	824,737	947,370	929,864	1,016,335	704,927	878,188	819,284	896,956
2002-03	889,309	1,031,272	1,062,753	1,046,318	724,194	902,274	844,666	866,279
2003-04	959,871	1,213,007	1,207,871	1,266,431	746,038	991,414	929,160	975,653
2004-05	1,150,348	1,450,116	1,406,962	1,503,938	873,539	1,139,317	977,796	1,076,914
2005-06	1,374,896	1,738,558	1,637,109	1,793,962	894,997	1,199,235	1,045,950	1,156,467
2006-07	1,606,927	1,923,168	1,795,826	2,014,126	959,517	1,208,396	1,068,757	1,178,367
2007-08	1,758,252	2,318,800	2,384,945	2,651,744	952,273	1,253,181	1,126,485	1,186,443
2008-09	2,619,087	2,971,323	2,642,053	3,134,795	1,011,449	1,290,351	1,136,662	1,307,954
2009-10	2,781,032	3,434,389	3,345,596	3,806,611	1,050,725	1,351,803	1,192,932	1,305,628
2010-11	3,052,710	4,212,062	3,927,069	5,398,277	1,036,786	1,308,522	1,152,856	1,595,859
2011-12	4,112,647	4,316,594	5,198,525	6,124,737	1,282,366	1,366,761	1,416,731	1,591,598

Appendix E2: Quarterly Private Consumption

Years\ Quarters	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	13,335	16,628	14,512	17,256	164,639	204,039	169,353	182,364
1973-74	19,809	21,356	21,120	23,829	193,740	214,793	187,221	199,601
1974-75	21,688	30,629	27,768	33,336	159,770	227,293	194,365	222,654
1975-76	26,142	36,341	32,298	34,386	178,874	248,795	222,992	224,193
1976-77	33,151	37,786	38,057	37,478	212,015	242,276	236,387	225,337
1977-78	38,306	46,844	45,096	44,148	214,663	282,348	254,573	262,074
1978-79	40,574	56,143	53,143	53,079	224,690	316,398	294,806	287,216
1979-80	50,755	64,134	55,850	73,798	248,662	329,212	293,575	326,818
1980-81	57,078	74,798	67,146	76,937	252,750	350,621	315,094	334,745
1981-82	60,448	98,071	83,114	82,986	235,845	398,942	341,695	333,223
1982-83	80,686	97,716	94,309	86,733	294,194	369,013	355,645	343,770
1983-84	88,164	101,136	120,652	104,656	305,224	374,744	409,245	357,402
1984-85	112,477	119,715	120,097	122,155	349,927	418,288	407,538	396,376
1985-86	112,642	126,713	124,151	119,786	348,930	416,844	397,673	392,026
1986-87	112,041	143,326	127,471	128,946	356,225	453,802	400,121	400,187
1987-88	136,861	158,643	149,581	153,982	394,140	489,276	448,664	442,299
1988-89	141,785	173,549	179,664	173,918	379,967	474,377	472,979	461,409
1989-90	171,090	201,969	181,381	197,852	416,275	507,182	456,809	488,947
1990-91	198,885	236,547	198,919	224,359	425,283	515,205	428,149	475,750
1991-92	239,825	280,242	261,037	265,373	467,497	566,758	523,646	526,538
1992-93	259,999	299,333	312,738	312,875	471,524	553,784	559,498	544,414
1993-94	287,706	366,470	341,702	370,747	479,168	611,501	551,441	560,938
1994-95	332,743	435,580	467,664	427,842	495,129	628,268	640,261	594,929
1995-96	390,568	523,284	482,965	505,693	534,907	700,450	636,908	654,313
1996-97	460,495	601,003	581,928	595,186	576,648	720,318	663,671	671,970
1997-98	435,413	728,607	627,330	584,530	507,167	793,140	708,607	664,795
1998-99	497,189	723,075	644,682	873,276	594,918	807,991	716,062	753,369
1999-00	566,804	792,367	742,692	782,158	571,410	832,761	706,722	773,128
2000-01	730,082	848,823	804,232	827,955	649,563	805,142	682,814	762,228
2001-02	745,347	860,559	828,130	895,825	630,687	797,580	725,326	786,794
2002-03	787,994	926,594	952,990	933,386	632,874	808,160	746,266	765,289
2003-04	852,913	1,082,562	1,112,647	1,136,596	652,862	880,885	849,131	869,070
2004-05	1,039,708	1,312,878	1,285,613	1,363,300	784,558	1,031,217	883,969	971,004
2005-06	1,198,813	1,516,544	1,459,623	1,545,245	765,883	1,039,177	919,972	983,042
2006-07	1,476,165	1,709,145	1,604,013	1,754,520	870,194	1,064,544	940,507	1,007,646
2007-08	1,511,062	2,018,948	2,112,066	2,193,235	798,444	1,072,699	968,166	940,002
2008-09	2,424,718	2,721,764	2,367,052	2,824,567	912,310	1,167,059	1,001,199	1,159,812
2009-10	2,524,041	3,171,076	3,062,381	3,431,398	883,438	1,184,737	1,018,897	1,081,709
2010-11	2,799,596	3,885,852	3,625,224	4,849,324	893,257	1,130,803	990,772	1,308,870
2011-12	3,750,914	3,931,999	4,742,847	5,605,982	1,100,021	1,177,737	1,196,636	1,349,565

*Quarterisation of National Income Accounts of Pakistan*

**Appendix E3: Quarterly Government Consumption**

Years/Quarters	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	1,216	1,360	2,599	2,089	14,786	16,245	29,534	22,708
1973-74	565	2,903	2,213	2,349	7,117	33,709	25,604	25,904
1974-75	2,223	2,446	3,803	2,767	20,063	21,014	31,273	21,577
1975-76	3,476	2,275	3,535	4,204	26,377	16,947	26,380	30,878
1976-77	1,673	4,258	3,768	5,176	12,409	30,324	26,135	35,705
1977-78	3,008	4,437	4,162	5,300	21,144	30,918	28,952	36,511
1978-79	5,537	3,270	3,426	5,767	41,260	24,337	25,425	42,168
1979-80	4,365	5,733	6,475	4,238	30,436	40,443	44,941	28,484
1980-81	7,126	5,656	6,118	7,692	36,452	28,334	30,442	37,438
1981-82	12,487	2,713	6,979	9,347	57,514	12,326	31,881	42,526
1982-83	8,054	10,548	8,497	12,031	35,692	46,122	37,024	51,420
1983-84	10,397	14,441	7,085	15,797	42,717	57,358	28,305	62,654
1984-85	7,862	15,444	14,259	16,161	30,467	59,058	53,966	60,450
1985-86	13,289	16,497	12,735	19,232	48,675	60,003	46,195	69,520
1986-87	17,688	14,053	18,837	22,291	62,612	48,877	65,948	76,664
1987-88	21,066	21,639	27,146	28,667	57,851	58,704	73,457	75,163
1988-89	27,808	30,081	27,898	35,723	74,525	79,344	73,322	92,100
1989-90	22,715	33,536	35,556	30,041	58,930	85,762	90,391	74,091
1990-91	27,806	32,498	45,754	30,851	64,938	73,782	102,146	66,760
1991-92	29,881	39,206	36,212	41,006	59,854	77,026	69,901	76,639
1992-93	35,357	42,125	38,887	47,911	73,850	86,599	78,937	94,364
1993-94	38,030	30,265	50,377	59,172	66,948	51,839	84,674	96,204
1994-95	50,801	42,941	42,305	70,033	81,881	66,463	63,652	104,047
1995-96	65,408	63,061	64,173	59,495	90,428	85,204	84,916	77,003
1996-97	67,437	74,664	61,007	68,512	80,639	86,225	67,896	74,596
1997-98	119,252	7,776	54,802	101,829	142,021	9,116	63,549	115,756
1998-99	88,519	52,926	65,427	79,424	96,295	56,860	69,941	84,464
1999-00	121,151	59,602	80,923	69,015	122,784	59,599	80,565	67,743
2000-01	71,124	67,314	103,592	85,531	68,605	63,950	98,474	81,040
2001-02	79,390	86,811	101,734	120,510	74,240	80,608	93,958	110,162
2002-03	101,315	104,678	109,763	112,933	91,320	94,115	98,400	100,990
2003-04	106,958	130,445	95,224	129,835	93,177	110,530	80,029	106,583
2004-05	110,640	137,238	121,348	140,639	88,981	108,100	93,827	105,910
2005-06	176,083	222,014	177,486	248,717	129,114	160,058	125,978	173,425
2006-07	130,762	214,023	191,812	259,606	89,323	143,852	128,250	170,721
2007-08	247,190	299,852	272,879	458,510	153,829	180,482	158,319	246,441
2008-09	194,368	249,559	275,001	310,228	99,139	123,292	135,463	148,142
2009-10	256,990	263,314	283,215	375,213	167,288	167,066	174,034	223,919
2010-11	253,114	326,210	301,845	548,952	143,528	177,719	162,084	286,989
2011-12	361,733	384,595	455,677	518,755	182,346	189,025	220,095	242,033

## Appendix E4: Quarterly Total Gross Fixed Capital Formation

Years/Quarters	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	1,960	2,223	2,313	2,910	45,316	50,079	49,733	62,703
1973-74	2,217	2,605	3,239	4,518	43,983	47,700	56,780	71,532
1974-75	3,698	4,856	4,900	5,427	54,301	60,485	56,563	60,686
1975-76	6,706	7,131	7,026	8,639	63,572	71,961	66,558	77,878
1976-77	7,432	8,566	8,230	10,038	67,973	77,636	74,593	90,853
1977-78	8,311	8,840	9,679	10,951	71,271	72,876	80,215	84,714
1978-79	8,635	9,884	10,357	12,012	65,241	74,848	78,328	89,804
1979-80	10,567	12,033	12,556	16,038	66,856	74,308	76,105	98,089
1980-81	13,471	14,614	15,720	16,484	81,900	83,725	89,064	90,859
1981-82	14,847	16,394	17,285	19,761	84,024	89,030	90,883	100,596
1982-83	16,493	19,450	19,862	22,059	93,469	102,559	105,055	113,218
1983-84	19,472	21,212	23,077	24,789	103,027	106,696	110,253	117,874
1984-85	21,240	24,239	24,945	29,046	105,770	116,537	118,596	132,686
1985-86	22,728	27,854	29,050	31,172	104,431	122,287	127,795	137,935
1986-87	27,334	31,956	33,077	33,875	111,997	120,807	124,088	124,908
1987-88	30,536	34,394	36,479	39,945	102,819	113,342	119,903	130,479
1988-89	37,046	42,918	44,761	45,676	116,006	129,852	134,207	130,897
1989-90	41,962	49,438	50,133	52,583	123,224	140,564	141,375	140,528
1990-91	47,007	58,521	59,929	62,448	123,575	144,087	147,528	153,148
1991-92	66,152	73,810	72,405	75,253	154,921	163,911	163,065	165,932
1992-93	69,342	82,086	80,532	94,107	146,889	165,685	162,114	187,677
1993-94	85,437	89,495	92,177	92,560	170,518	168,288	164,265	160,137
1994-95	85,286	97,430	105,214	112,195	140,177	155,568	166,706	175,486
1995-96	103,537	113,157	117,398	125,445	157,877	164,949	169,259	180,106
1996-97	106,856	128,344	128,753	133,219	152,133	165,942	162,471	170,633
1997-98	118,773	134,135	123,580	133,646	142,379	162,937	145,708	153,733
1998-99	114,158	129,573	133,188	147,452	138,333	146,204	150,766	166,389
1999-00	141,656	151,312	150,228	164,292	145,665	152,465	148,838	160,441
2000-01	145,829	166,340	168,550	178,607	140,249	158,640	163,060	172,474
2001-02	151,982	169,909	167,421	191,062	139,672	161,525	157,215	173,720
2002-03	162,288	184,380	181,886	207,882	146,288	165,570	159,624	186,587
2003-04	171,519	201,301	199,335	272,680	129,975	154,387	144,273	189,096
2004-05	230,115	266,160	303,575	335,092	135,569	169,779	185,452	210,593
2005-06	344,601	390,741	398,214	432,283	195,821	212,608	209,288	223,260
2006-07	411,571	463,617	459,692	479,740	210,124	249,974	240,410	254,633
2007-08	470,101	522,339	506,616	595,687	226,145	263,280	238,197	264,096
2008-09	515,435	566,279	517,993	604,425	202,314	234,098	200,324	236,392
2009-10	454,558	519,942	529,267	563,179	178,396	211,874	199,429	224,934
2010-11	477,417	530,439	490,181	571,206	191,596	212,442	167,313	198,039
2011-12	501,871	588,455	521,622	643,917	160,008	201,022	147,134	182,769



*Quarterisation of National Income Accounts of Pakistan*

**Appendix E5: Quarterly Private Gross Fixed Capital Formation**

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	928	1,278	1,347	1,932	n.a	n.a	n.a	n.a
1973-74	370	1,019	1,523	2,891	n.a	n.a	n.a	n.a
1974-75	639	2,254	2,406	2,572	n.a	n.a	n.a	n.a
1975-76	2,398	3,308	2,901	4,608	n.a	n.a	n.a	n.a
1976-77	2,663	3,886	3,618	5,457	n.a	n.a	n.a	n.a
1977-78	3,332	3,797	4,605	5,796	n.a	n.a	n.a	n.a
1978-79	3,078	4,519	4,883	6,550	n.a	n.a	n.a	n.a
1979-80	3,937	5,520	5,754	9,564	n.a	n.a	n.a	n.a
1980-81	7,128	8,132	9,014	10,043	36,826	39,939	44,017	48,269
1981-82	6,933	8,512	9,604	12,054	34,722	41,372	45,560	56,029
1982-83	7,297	10,862	11,278	13,476	36,202	51,471	53,723	62,917
1983-84	10,080	11,835	13,597	15,296	48,148	54,181	59,500	67,003
1984-85	10,875	13,663	14,369	18,560	51,118	62,374	64,958	81,213
1985-86	10,933	15,953	17,098	19,304	47,242	66,566	71,618	81,628
1986-87	13,185	17,793	19,233	19,904	51,076	64,097	68,932	70,165
1987-88	15,561	19,490	21,543	24,915	49,409	60,968	67,406	77,776
1988-89	19,814	25,158	26,940	28,777	58,184	71,877	76,433	78,335
1989-90	23,890	30,834	32,071	33,963	67,012	84,218	87,024	87,395
1990-91	26,260	37,182	38,184	40,172	65,537	87,685	90,048	94,446
1991-92	40,072	47,848	45,103	48,409	91,078	103,453	98,711	103,885
1992-93	39,468	52,230	49,486	63,071	81,671	103,355	97,548	123,542
1993-94	54,445	57,177	58,702	58,953	107,330	106,206	103,327	100,742
1994-95	46,125	59,111	67,098	72,798	72,481	90,809	102,593	109,998
1995-96	60,260	69,433	74,246	80,473	88,813	98,075	103,883	112,207
1996-97	64,482	86,591	87,526	92,590	86,133	106,219	104,872	112,876
1997-98	84,320	98,026	88,002	98,405	97,737	115,411	100,354	109,783
1998-99	71,552	86,612	86,553	101,842	79,150	90,090	89,924	106,496
1999-00	90,281	98,157	96,065	110,325	92,859	98,928	95,199	107,762
2000-01	87,588	108,335	110,873	116,302	83,977	103,042	106,979	112,005
2001-02	104,981	123,030	124,041	144,411	96,097	116,548	116,095	130,894
2002-03	112,978	136,709	135,050	160,367	101,542	122,457	118,227	143,623
2003-04	110,649	137,833	147,785	220,246	83,343	105,144	106,492	152,234
2004-05	167,901	195,736	226,393	262,394	97,761	123,428	136,781	163,355
2005-06	293,442	312,549	321,676	270,073	165,107	167,811	166,912	136,062
2006-07	337,098	373,325	354,852	270,575	170,129	198,807	182,906	139,708
2007-08	333,762	386,961	376,496	442,429	157,573	191,797	174,097	192,908
2008-09	445,570	473,091	381,673	351,267	174,087	194,485	146,294	135,450
2009-10	361,852	421,553	424,816	336,959	145,168	175,316	163,511	140,601
2010-11	416,415	443,097	348,713	341,255	166,709	179,521	117,000	119,499
2011-12	426,997	471,601	358,766	382,146	137,079	165,207	98,087	106,884

## Appendix E6: Quarterly Government Gross Fixed Capital Formation

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	1,032	945	965	978	n.a	n.a	n.a	n.a
1973-74	1,847	1,586	1,716	1,627	n.a	n.a	n.a	n.a
1974-75	3,058	2,602	2,494	2,855	n.a	n.a	n.a	n.a
1975-76	4,308	3,822	4,126	4,031	n.a	n.a	n.a	n.a
1976-77	4,769	4,680	4,613	4,581	n.a	n.a	n.a	n.a
1977-78	4,980	5,043	5,074	5,155	n.a	n.a	n.a	n.a
1978-79	5,556	5,365	5,474	5,462	n.a	n.a	n.a	n.a
1979-80	6,631	6,514	6,802	6,474	n.a	n.a	n.a	n.a
1980-81	6,342	6,481	6,706	6,442	45,074	43,786	45,047	42,591
1981-82	7,914	7,882	7,681	7,707	49,302	47,658	45,323	44,567
1982-83	9,195	8,588	8,584	8,582	57,266	51,088	51,332	50,301
1983-84	9,392	9,377	9,481	9,493	54,879	52,515	50,753	50,871
1984-85	10,365	10,576	10,577	10,487	54,652	54,163	53,638	51,474
1985-86	11,795	11,901	11,952	11,867	57,189	55,721	56,177	56,307
1986-87	14,149	14,163	13,845	13,971	60,921	56,710	55,156	54,743
1987-88	14,975	14,904	14,936	15,030	53,410	52,374	52,497	52,702
1988-89	17,233	17,759	17,822	16,899	57,822	57,974	57,774	52,562
1989-90	18,072	18,604	18,063	18,621	56,211	56,346	54,350	53,132
1990-91	20,747	21,338	21,746	22,276	58,038	56,402	57,481	58,702
1991-92	26,080	25,962	27,302	26,844	63,843	60,458	64,354	62,046
1992-93	29,874	29,856	31,047	31,036	65,218	62,330	64,566	64,135
1993-94	30,993	32,318	33,475	33,607	63,188	62,082	60,938	59,395
1994-95	39,161	38,319	38,116	39,397	67,696	64,759	64,113	65,488
1995-96	43,277	43,724	43,152	44,972	69,064	66,874	65,375	67,899
1996-97	42,374	41,754	41,227	40,630	66,000	59,723	57,600	57,757
1997-98	34,453	36,109	35,577	35,240	44,643	47,526	45,354	43,950
1998-99	42,606	42,960	46,635	45,610	59,183	56,114	60,843	59,892
1999-00	51,375	53,155	54,163	53,967	52,807	53,537	53,639	52,678
2000-01	58,240	58,005	57,677	62,306	56,271	55,598	56,081	60,468
2001-02	47,001	46,878	43,379	46,650	43,575	44,977	41,121	42,826
2002-03	49,310	47,671	46,836	47,514	44,746	43,113	41,397	42,964
2003-04	60,870	63,468	51,550	52,434	46,632	49,243	37,781	36,862
2004-05	62,213	70,424	77,182	72,698	37,808	46,350	48,670	47,238
2005-06	51,158	78,192	76,537	162,210	30,714	44,796	42,376	87,198
2006-07	74,473	90,292	104,840	209,166	39,995	51,167	57,504	114,925
2007-08	136,340	135,378	130,120	153,258	68,572	71,483	64,100	71,188
2008-09	69,865	93,188	136,321	253,158	28,226	39,614	54,030	100,943
2009-10	92,707	98,389	104,451	226,220	33,228	36,557	35,918	84,333
2010-11	61,002	87,341	141,468	229,951	24,887	32,921	50,314	78,540
2011-12	74,874	116,854	162,855	261,771	22,929	35,815	49,046	75,885

*Quarterisation of National Income Accounts of Pakistan*

**Appendix E7: Quarterly Changes in Stock**

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
1973-74	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
1974-75	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
1975-76	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
1976-77	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
1977-78	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
1978-79	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
1979-80	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
1980-81	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
1981-82	1,708	1,887	1,989	2,274	4,932	5,086	5,440	5,614
1982-83	1,419	1,674	1,709	1,898	7,772	8,329	8,570	9,601
1983-84	1,647	1,794	1,952	2,096	6,108	6,880	7,063	7,688
1984-85	1,836	2,096	2,157	2,511	6,557	6,846	7,120	7,656
1985-86	1,846	2,262	2,360	2,532	6,820	7,559	7,704	8,682
1986-87	2,057	2,405	2,489	2,549	6,459	7,644	8,003	8,669
1987-88	2,247	2,531	2,684	2,939	7,136	7,758	7,990	8,048
1988-89	2,696	3,123	3,257	3,324	6,731	7,470	7,925	8,657
1989-90	3,026	3,566	3,616	3,792	7,542	8,500	8,804	8,620
1990-91	3,259	4,057	4,155	4,329	7,908	9,073	9,140	9,091
1991-92	4,301	4,799	4,708	4,893	7,678	9,032	9,250	9,609
1992-93	4,487	5,312	5,211	6,090	9,700	10,295	10,223	10,418
1993-94	5,844	6,121	6,305	6,331	8,974	10,159	9,928	11,528
1994-95	6,011	6,867	7,415	7,907	10,576	10,439	10,188	9,932
1995-96	7,737	8,455	8,772	9,374	8,850	9,884	10,623	11,195
1996-97	8,226	9,881	9,912	10,256	10,481	10,978	11,282	12,014
1997-98	16,624	18,774	17,297	18,705	10,214	11,266	11,040	11,622
1998-99	10,450	11,861	12,192	13,497	18,162	20,834	18,591	19,670
1999-00	12,056	12,877	12,785	13,982	11,143	11,893	12,211	13,606
2000-01	12,430	14,179	14,367	15,224	12,398	12,977	12,669	13,656
2001-02	12,956	14,484	14,272	16,288	11,694	13,232	13,602	14,386
2002-03	17,768	20,187	19,914	22,760	11,813	13,667	13,305	14,705
2003-04	18,322	21,504	21,294	29,129	15,788	17,877	17,235	20,152
2004-05	21,350	24,694	28,165	31,089	15,486	18,407	17,218	22,592
2005-06	26,843	30,437	31,019	33,673	15,272	19,130	20,905	23,778
2006-07	31,474	35,454	35,154	36,687	19,418	21,011	20,694	21,811
2007-08	36,779	40,866	39,636	46,604	19,383	23,039	22,111	23,115
2008-09	47,608	52,304	47,844	55,828	20,273	23,649	21,399	23,725
2009-10	52,089	59,582	60,650	64,537	21,457	24,804	21,154	24,833
2010-11	66,569	73,962	68,349	79,646	24,490	27,154	21,386	25,313
2011-12	73,519	86,203	76,412	94,328	23,728	29,810	21,819	27,103

## Appendix E8: Quarterly Exports of Goods and Services

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	2,076	2,343	2,449	3,090	36,412	39,741	35,584	38,428
1973-74	2,263	2,804	2,314	4,576	29,580	32,911	23,725	49,436
1974-75	3,175	3,195	3,133	3,488	25,928	28,038	29,079	32,193
1975-76	3,083	3,185	3,795	3,815	27,204	29,116	34,300	32,148
1976-77	2,921	3,313	3,631	4,123	23,304	26,352	27,176	28,695
1977-78	2,959	3,817	4,352	5,497	21,407	28,938	29,581	39,039
1978-79	3,614	4,823	6,360	6,727	22,144	27,967	36,835	36,780
1979-80	5,479	6,948	9,692	7,359	30,196	37,679	50,350	38,587
1980-81	6,251	8,478	11,359	9,612	32,183	43,693	57,032	46,464
1981-82	7,124	7,729	8,403	9,771	34,415	37,551	43,367	53,304
1982-83	7,372	9,112	10,656	17,246	34,159	42,364	51,472	82,080
1983-84	9,981	13,687	11,708	12,449	44,225	57,815	48,835	51,444
1984-85	9,270	14,219	12,880	13,509	33,345	55,634	56,222	56,389
1985-86	12,216	16,428	16,781	17,829	55,257	70,612	68,859	73,001
1986-87	17,029	17,768	20,729	23,513	66,430	67,879	77,741	88,693
1987-88	18,280	24,495	24,142	26,664	58,282	75,124	72,445	81,048
1988-89	22,198	25,473	28,140	32,484	62,283	77,764	85,444	100,926
1989-90	24,149	30,106	35,511	36,791	65,790	76,939	90,385	96,977
1990-91	33,025	42,921	42,917	53,913	83,301	104,519	112,154	140,581
1991-92	42,821	48,699	52,867	64,783	99,567	116,628	124,945	160,305
1992-93	48,685	58,963	53,487	56,191	113,079	137,259	124,512	133,201
1993-94	58,400	61,051	62,883	71,798	119,133	130,351	130,213	144,157
1994-95	65,514	76,745	73,358	96,112	115,252	134,874	111,515	146,104
1995-96	66,878	77,771	99,294	114,356	92,740	112,635	144,593	167,905
1996-97	90,025	100,128	97,491	102,794	101,544	129,201	122,558	130,721
1997-98	103,339	118,751	107,433	111,789	103,031	122,071	112,276	118,912
1998-99	106,991	114,451	108,485	121,122	102,719	109,301	105,648	125,615
1999-00	116,496	131,286	124,249	142,249	110,183	132,534	126,332	145,231
2000-01	152,474	154,150	155,536	154,988	135,959	144,927	147,647	148,404
2001-02	179,550	168,774	154,322	175,210	167,050	159,156	145,363	162,830
2002-03	189,061	190,570	194,183	241,343	194,564	200,101	194,594	225,166
2003-04	218,256	210,731	218,702	236,015	210,466	191,990	192,748	206,779
2004-05	244,846	228,945	259,538	286,455	210,963	201,750	225,216	240,967
2005-06	281,873	277,037	279,246	323,101	236,432	232,840	234,462	262,128
2006-07	284,179	311,341	295,121	340,019	231,617	248,631	238,198	269,718
2007-08	286,796	289,905	341,900	397,838	222,404	210,891	236,003	266,005
2008-09	436,203	397,946	375,639	426,407	227,736	219,394	207,991	249,254
2009-10	444,305	472,102	499,133	593,924	246,611	250,485	263,203	286,107
2010-11	523,692	673,700	672,199	683,029	219,783	282,738	282,109	286,653
2011-12	631,993	600,699	646,302	696,364	227,699	216,424	232,855	250,891

*Quarterisation of National Income Accounts of Pakistan*

**Appendix E9: Quarterly Imports of Goods and Services**

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	1,965	2,152	2,501	2,925	37,014	39,513	40,087	45,858
1973-74	3,042	2,858	3,788	5,428	50,294	44,460	48,560	53,232
1974-75	4,416	5,411	6,335	6,722	34,365	40,771	44,231	48,350
1975-76	5,586	5,455	5,698	6,981	52,669	61,228	54,822	76,535
1976-77	5,590	6,466	6,800	7,731	54,661	60,864	67,043	72,772
1977-78	6,145	7,420	9,306	9,542	53,800	67,131	82,499	82,122
1978-79	8,573	10,424	11,336	11,952	77,984	89,096	94,610	96,782
1979-80	10,662	12,569	12,899	18,135	81,319	90,250	87,159	117,194
1980-81	14,806	14,934	15,559	16,472	91,667	83,774	85,776	90,668
1981-82	16,173	17,302	15,918	18,713	80,359	85,461	81,275	103,125
1982-83	18,024	21,566	20,496	21,460	81,528	99,170	99,201	109,221
1983-84	20,172	21,724	24,746	25,050	95,655	99,934	111,292	110,383
1984-85	25,326	24,336	25,290	31,163	101,663	104,563	111,557	136,685
1985-86	23,993	26,140	25,936	26,810	99,140	108,218	111,178	124,746
1986-87	23,821	26,336	27,750	30,737	112,110	106,168	112,312	121,523
1987-88	28,993	30,560	31,771	39,118	96,412	102,472	106,003	131,831
1988-89	31,818	38,300	42,901	42,722	98,640	115,805	132,552	126,066
1989-90	35,341	45,489	45,899	45,567	94,496	118,363	124,137	119,512
1990-91	39,837	50,677	47,121	49,959	91,474	105,020	104,980	121,266
1991-92	57,793	62,640	60,396	65,159	134,400	133,842	139,994	144,889
1992-93	64,898	73,714	72,786	86,027	141,528	147,714	158,986	187,006
1993-94	74,135	69,665	71,262	80,532	147,791	134,749	133,855	150,301
1994-95	74,452	80,473	96,830	108,574	125,992	132,851	157,811	172,539
1995-96	99,977	110,682	118,460	122,557	145,700	162,427	175,065	186,093
1996-97	112,712	131,857	124,344	132,552	149,237	166,012	154,446	174,257
1997-98	121,798	130,561	107,007	107,244	137,725	171,042	149,828	149,159
1998-99	110,020	119,470	118,273	147,907	138,273	134,564	133,022	169,066
1999-00	132,339	134,514	142,035	153,102	139,495	138,018	137,989	146,487
2000-01	168,333	164,307	163,066	165,749	138,626	141,736	143,880	149,888
2001-02	165,141	156,387	163,515	196,837	137,042	141,229	149,050	164,281
2002-03	178,653	193,708	208,599	205,263	159,010	163,861	166,808	168,304
2003-04	165,712	186,312	209,897	263,478	128,659	141,163	150,672	181,065
2004-05	266,208	297,289	339,928	368,180	193,353	200,946	216,195	234,650
2005-06	407,699	440,632	438,245	483,810	237,373	258,039	252,723	254,918
2006-07	448,999	461,258	455,299	485,532	234,200	254,509	245,272	234,060
2007-08	483,315	543,267	661,045	758,381	223,540	245,193	265,430	267,889
2008-09	768,070	647,656	524,687	656,767	205,243	206,761	197,558	241,137
2009-10	623,741	709,127	745,148	799,227	197,875	222,655	227,953	239,204
2010-11	776,972	867,921	846,228	976,515	198,658	221,912	216,366	249,678
2011-12	1,018,891	1,074,029	1,020,830	1,146,569	233,191	245,810	233,635	262,412

## Appendix E10: Quarterly Indirect Taxes

Years\ Quarters	(Millions Rupees)							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	1,456	1,821	2,040	2,283	21,108	25,937	27,653	29,595
1973-74	2,092	2,617	2,932	3,281	24,442	28,172	31,452	33,546
1974-75	2,550	3,189	3,574	3,998	23,571	28,065	30,097	31,931
1975-76	3,009	3,764	4,217	4,718	23,499	28,849	32,388	35,662
1976-77	3,452	4,318	4,838	5,413	24,825	29,823	32,548	36,212
1977-78	4,324	5,409	6,060	6,780	27,744	34,396	38,469	42,624
1978-79	3,101	3,878	4,346	4,862	31,789	39,712	44,376	48,912
1979-80	6,691	8,369	9,377	10,491	35,767	45,259	49,896	54,059
1980-81	7,844	9,811	10,994	12,299	37,743	46,232	51,457	56,310
1981-82	8,258	10,329	11,574	12,949	36,351	44,845	50,530	56,301
1982-83	9,592	11,998	13,444	15,040	40,455	49,926	55,742	61,175
1983-84	11,813	14,776	16,557	18,523	45,628	55,175	62,180	69,069
1984-85	12,440	15,559	17,434	19,505	45,423	56,062	62,172	68,745
1985-86	12,839	16,058	17,993	20,131	44,259	54,973	61,433	68,491
1986-87	16,882	17,670	18,500	21,128	55,809	57,397	60,486	67,860
1987-88	21,359	21,537	24,695	29,701	64,522	64,269	73,504	85,659
1988-89	22,209	25,228	30,450	36,524	61,208	68,434	82,302	96,839
1989-90	24,273	29,461	33,637	37,725	62,534	74,817	84,916	92,393
1990-91	32,764	35,706	33,561	40,103	76,682	81,242	75,086	86,965
1991-92	39,183	37,334	40,372	49,862	83,497	78,032	82,907	99,140
1992-93	32,503	41,920	46,581	53,213	64,374	81,717	89,660	99,380
1993-94	46,751	46,692	45,447	56,047	81,350	79,052	75,505	90,070
1994-95	46,825	53,803	59,071	71,221	70,904	78,236	83,499	99,409
1995-96	47,096	58,649	56,823	72,449	63,666	77,481	73,519	91,684
1996-97	54,764	71,058	58,197	63,158	66,413	83,223	65,686	69,741
1997-98	56,098	59,605	54,250	72,254	62,161	65,018	58,531	76,422
1998-99	50,462	61,485	61,047	81,131	52,107	62,701	61,944	81,897
1999-00	64,904	74,327	71,137	85,447	66,006	74,580	71,067	84,162
2000-01	69,838	78,278	79,241	93,312	66,582	73,502	74,451	87,386
2001-02	71,845	73,104	80,298	114,016	67,063	67,758	74,026	104,038
2002-03	87,189	95,288	99,155	121,588	77,163	84,120	87,280	106,760
2003-04	87,692	117,738	113,379	136,740	74,071	96,729	92,390	108,839
2004-05	96,676	115,272	112,471	144,155	76,551	89,398	85,622	106,884
2005-06	121,015	134,826	136,930	176,306	86,413	94,659	94,650	119,719
2006-07	127,383	130,518	131,636	167,337	84,457	85,147	85,428	106,809
2007-08	137,612	153,750	163,529	212,712	82,380	89,023	91,268	109,980
2008-09	185,200	180,711	174,736	222,854	90,533	85,565	82,493	101,992
2009-10	188,091	202,581	207,017	245,211	82,501	86,608	85,718	98,605
2010-11	88,576	191,773	295,463	439,041	30,110	65,189	100,436	149,242
2011-12	115,815	243,590	371,299	543,763	35,784	75,263	114,722	168,009

*Quarterisation of National Income Accounts of Pakistan*

**Appendix E11: Quarterly Subsidies**

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	87	98	187	150	1,270	1,395	2,536	1,950
1973-74	216	1,111	847	899	2,550	12,079	9,175	9,282
1974-75	778	856	1,331	969	7,173	7,513	11,181	7,715
1975-76	777	508	790	939	6,059	3,893	6,059	7,093
1976-77	212	539	477	656	1,530	3,739	3,223	4,403
1977-78	553	816	766	975	3,548	5,189	4,859	6,127
1978-79	2,149	1,269	1,330	2,239	12,870	7,591	7,930	13,153
1979-80	1,344	1,765	1,993	1,305	7,155	9,508	10,565	6,696
1980-81	1,393	1,105	1,196	1,503	6,686	5,197	5,584	6,867
1981-82	2,152	468	1,203	1,611	9,449	2,025	5,238	6,987
1982-83	1,546	2,025	1,631	2,310	6,519	8,424	6,762	9,392
1983-84	1,766	2,452	1,203	2,683	6,818	9,155	4,518	10,001
1984-85	1,361	2,674	2,469	2,798	4,972	9,637	8,806	9,864
1985-86	2,150	2,669	2,061	3,112	7,411	9,135	7,033	10,584
1986-87	1,790	1,422	1,906	2,256	5,917	4,619	6,232	7,245
1987-88	2,166	2,225	2,791	2,948	6,541	6,637	8,305	8,498
1988-89	2,919	3,157	2,928	3,750	8,034	8,554	7,904	9,929
1989-90	2,339	3,454	3,662	3,094	6,016	8,756	9,228	7,564
1990-91	2,277	2,661	3,747	2,526	5,328	6,053	8,380	5,477
1991-92	2,323	3,048	2,815	3,188	4,948	6,368	5,779	6,336
1992-93	2,109	2,513	2,320	2,858	4,171	4,892	4,459	5,330
1993-94	1,937	1,541	2,565	3,013	3,383	2,620	4,279	4,862
1994-95	1,627	1,375	1,355	2,243	2,458	1,995	1,911	3,123
1995-96	3,585	3,456	3,517	3,261	4,700	4,429	4,414	4,002
1996-97	3,210	3,555	2,904	3,262	3,888	4,157	3,273	3,596
1997-98	5,707	372	2,622	4,873	6,313	405	2,825	5,146
1998-99	5,646	3,376	4,173	5,066	5,819	3,436	4,226	5,104
1999-00	11,622	5,718	7,763	6,621	11,779	5,717	7,729	6,499
2000-01	7,391	6,995	10,765	8,888	7,046	6,568	10,113	8,323
2001-02	6,699	7,325	8,584	10,168	6,251	6,788	7,912	9,276
2002-03	14,604	15,088	15,821	16,278	12,921	13,317	13,923	14,290
2003-04	15,148	18,474	13,486	18,388	12,769	15,147	10,967	14,606
2004-05	19,825	24,591	21,744	25,200	15,672	19,039	16,525	18,653
2005-06	22,301	28,118	22,479	31,500	15,914	19,728	15,527	21,376
2006-07	19,538	31,979	28,660	38,789	12,690	20,437	18,220	24,254
2007-08	66,976	81,244	73,936	124,233	39,606	46,469	40,762	63,451
2008-09	28,325	36,368	40,075	45,209	13,876	17,257	18,961	20,735
2009-10	15,889	16,280	17,510	23,198	6,185	6,177	6,434	8,278
2010-11	13,254	17,081	15,805	28,745	2,531	3,133	2,858	5,060
2011-12	12,071	12,834	15,207	17,312	4,087	4,237	4,933	5,425

## Appendix E12: Quarterly Net Factor Income from Abroad

Millions Rupees

Years\ Quarters	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	126	122	121	126	1,725	1,677	1,657	1,726
1973-74	162	149	151	197	1,678	1,544	1,570	2,039
1974-75	263	269	331	361	2,160	2,211	2,722	2,966
1975-76	674	728	918	876	6,325	6,835	8,616	8,229
1976-77	1,022	1,214	1,705	1,912	9,731	11,567	16,237	18,210
1977-78	2,837	2,904	3,468	3,755	25,503	26,107	31,178	33,756
1978-79	3,530	3,791	4,122	4,077	30,417	32,662	35,510	35,128
1979-80	4,114	4,384	5,642	5,493	28,791	30,686	39,485	38,445
1980-81	6,033	6,066	6,144	5,990	30,478	30,643	31,040	30,262
1981-82	5,921	6,367	7,298	7,485	26,973	29,007	33,247	34,098
1982-83	9,156	10,599	11,691	10,626	38,865	44,994	49,627	45,107
1983-84	10,778	10,753	11,196	9,558	43,589	43,489	45,278	38,653
1984-85	10,116	10,357	10,609	9,833	38,422	39,336	40,293	37,347
1985-86	11,077	10,916	12,018	10,157	42,324	41,707	45,920	38,810
1986-87	9,617	9,670	10,556	9,007	35,361	35,554	38,811	33,116
1987-88	7,392	8,337	8,411	6,933	21,599	24,359	24,575	20,256
1988-89	6,181	7,449	8,912	7,365	16,284	19,624	23,478	19,401
1989-90	9,697	9,993	10,726	8,991	22,359	23,040	24,730	20,730
1990-91	7,740	6,351	5,912	5,529	14,699	12,063	11,228	10,502
1991-92	3,251	3,231	3,442	3,465	5,724	5,688	6,060	6,101
1992-93	2,896	2,587	2,422	2,732	4,587	4,098	3,836	4,326
1993-94	,902	1,097	1,157	1,103	734	893	942	898
1994-95	3,845	3,941	3,585	3,626	4,647	4,763	4,333	4,382
1995-96	-2,062	-2,121	-1,811	-1,628	-3,887	-3,999	-3,414	-3,070
1996-97	-4,167	-4,836	-5,547	-6,114	-5,679	-6,591	-7,560	-8,332
1997-98	-8,422	-7,295	-4,813	-5,489	-11,307	-9,795	-6,461	-7,369
1998-99	-7,741	-7,208	-5,818	-6,516	-9,391	-8,744	-7,057	-7,905
1999-00	-10,517	-14,714	-10,427	-12,299	-10,517	-14,714	-10,427	-12,299
2000-01	-18,340	-12,204	-12,307	-11,631	-15,917	-10,592	-10,681	-10,095
2001-02	3,368	6,362	6,382	7,552	3,216	6,074	6,093	7,211
2002-03	37,726	39,228	38,784	36,074	31,573	32,829	32,458	30,190
2003-04	29,145	31,101	32,199	32,033	21,241	22,667	23,467	23,346
2004-05	31,711	31,060	35,621	36,069	20,930	20,501	23,511	23,807
2005-06	32,673	34,299	38,224	44,706	18,384	19,298	21,507	25,154
2006-07	35,396	38,289	39,274	44,672	18,510	20,024	20,539	23,361
2007-08	48,616	50,683	53,823	55,793	19,916	20,763	22,050	22,857
2008-09	83,334	78,028	89,460	95,459	27,296	25,558	29,303	31,267
2009-10	148,239	139,794	128,475	149,738	45,735	43,129	39,637	46,197
2010-11	193,783	193,697	199,528	233,216	49,547	49,525	51,016	59,629
2011-12	256,321	235,404	265,139	268,247	58,664	53,877	60,682	61,393



*Quarterisation of National Income Accounts of Pakistan*

**Appendix F: Quarterly GDP (Market Price)**

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	17,064	20,855	20,148	23,233	220,533	265,499	244,838	262,079
1973-74	21,781	27,513	25,543	30,753	229,855	277,345	250,972	280,734
1974-75	27,095	36,374	34,113	38,902	222,342	291,240	265,270	286,671
1975-76	33,694	42,463	40,577	43,800	240,946	299,037	282,393	295,575
1976-77	38,767	47,190	46,370	49,366	254,074	305,851	292,655	309,114
1977-78	45,828	55,728	53,146	56,428	269,108	336,662	315,363	335,141
1978-79	49,777	62,128	60,890	65,646	276,933	349,234	335,788	353,815
1979-80	59,621	75,086	71,968	80,856	296,861	383,196	359,543	388,357
1980-81	69,379	88,282	85,840	94,711	323,616	406,035	386,452	409,396
1981-82	81,233	106,304	101,097	105,457	337,167	443,169	416,445	428,446
1982-83	94,445	115,198	113,228	120,127	373,714	457,692	443,286	461,030
1983-84	108,623	130,630	136,383	134,731	395,729	475,213	477,606	474,746
1984-85	123,750	150,968	148,025	151,274	419,205	521,172	507,973	513,369
1985-86	137,292	163,634	158,905	165,702	453,730	547,027	522,271	546,618
1986-87	153,701	182,435	176,745	183,101	493,951	586,920	555,956	566,360
1987-88	180,757	212,584	211,580	216,171	522,205	626,162	610,487	612,333
1988-89	202,599	238,735	241,814	252,656	540,927	648,894	642,784	656,188
1989-90	226,801	273,114	263,494	277,188	570,188	696,437	657,656	675,476
1990-91	271,032	325,453	312,807	331,484	612,049	736,026	685,507	707,968
1991-92	325,425	385,318	369,891	392,086	654,765	785,857	736,900	764,282
1992-93	353,511	416,399	417,350	433,117	662,442	783,018	765,227	782,843
1993-94	404,288	481,826	487,074	524,696	693,765	818,909	789,335	803,402
1994-95	473,106	581,990	597,285	616,081	708,580	850,120	843,028	857,792
1995-96	540,772	675,317	660,994	700,479	745,592	911,821	865,879	894,203
1996-97	627,460	785,655	757,593	781,469	768,766	938,516	864,709	880,172
1997-98	696,346	866,241	828,450	864,275	773,372	943,612	900,684	922,533
1998-99	724,224	912,252	852,422	1,083,383	798,212	989,004	913,677	968,882
1999-00	825,807	1,012,909	968,823	1,018,573	823,134	1,052,168	937,137	1,013,673
2000-01	943,606	1,086,499	1,083,212	1,096,556	866,994	1,044,356	962,229	1,028,381
2001-02	1,004,083	1,144,150	1,102,364	1,202,057	890,269	1,072,369	983,486	1,081,653
2002-03	1,079,773	1,232,700	1,250,135	1,313,039	922,036	1,121,099	1,047,836	1,132,004
2003-04	1,202,259	1,460,233	1,437,308	1,540,780	977,922	1,214,689	1,131,431	1,210,081
2004-05	1,380,450	1,672,626	1,658,311	1,788,395	1,044,344	1,326,862	1,193,302	1,317,288
2005-06	1,620,514	1,996,141	1,907,342	2,099,208	1,112,084	1,405,257	1,256,276	1,409,754
2006-07	1,885,152	2,272,322	2,130,494	2,385,040	1,186,184	1,474,373	1,322,498	1,494,893
2007-08	2,068,613	2,628,642	2,612,053	2,933,492	1,207,582	1,509,385	1,361,161	1,487,247
2008-09	2,829,154	3,316,500	3,038,236	3,540,098	1,264,745	1,560,331	1,367,522	1,572,873
2009-10	3,108,243	3,776,883	3,689,496	4,229,028	1,304,265	1,614,339	1,449,048	1,602,307
2010-11	3,597,579	4,777,558	4,602,642	5,055,092	1,299,951	1,623,316	1,515,939	1,707,219
2011-12	4,195,658	5,386,602	5,220,058	5,851,550	1,345,954	1,702,279	1,592,606	1,762,829

## Appendix G: Quarterly GNP (Factor Cost)

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	15,801	19,225	18,391	21,188	201,860	242,088	221,560	236,431
1973-74	20,051	26,321	23,692	28,656	210,708	262,495	231,706	259,856
1974-75	25,681	34,410	32,377	36,317	208,822	273,398	250,088	266,894
1975-76	32,220	39,941	38,103	40,946	229,511	280,876	265,572	276,493
1976-77	36,498	44,619	43,661	46,481	240,171	290,724	279,881	296,141
1977-78	44,886	54,053	51,276	54,347	270,032	332,948	313,672	333,467
1978-79	52,780	63,529	62,197	67,483	287,377	349,023	337,408	356,604
1979-80	58,452	72,967	70,308	77,053	297,019	377,902	360,842	381,059
1980-81	68,994	85,548	82,037	89,770	322,518	394,998	372,411	391,337
1981-82	81,256	102,595	97,883	101,484	336,406	428,583	405,152	414,774
1982-83	95,587	115,877	112,983	117,972	378,150	460,621	445,020	455,941
1983-84	109,343	129,085	131,888	128,315	399,857	471,913	465,976	456,085
1984-85	122,692	148,523	143,589	144,280	416,846	513,368	495,664	493,660
1985-86	137,772	161,249	154,818	158,792	458,483	542,312	514,997	529,361
1986-87	148,046	175,627	170,520	172,988	479,632	568,512	540,367	539,756
1987-88	168,669	201,411	197,825	195,840	485,985	591,185	569,760	557,069
1988-89	189,378	223,974	222,716	226,611	503,208	606,907	592,377	591,115
1989-90	214,270	256,870	243,790	250,766	535,070	652,006	607,390	612,846
1990-91	247,598	298,133	288,607	298,539	555,866	671,848	628,910	637,284
1991-92	290,910	353,788	335,030	347,716	582,528	717,246	664,827	678,504
1992-93	325,529	378,803	374,421	384,176	604,527	708,543	683,856	694,398
1993-94	359,156	436,680	444,570	471,564	617,017	741,547	717,167	719,048
1994-95	430,649	532,230	541,609	548,717	643,688	776,498	764,354	766,193
1995-96	494,692	617,157	605,112	628,032	681,828	833,554	792,206	804,175
1996-97	570,935	712,061	696,036	714,594	700,309	852,772	793,429	804,689
1997-98	637,386	798,654	771,655	790,583	706,349	867,952	836,920	844,293
1998-99	671,913	846,548	789,382	1,000,098	741,731	919,713	848,209	885,361
1999-00	762,008	929,586	895,022	927,448	758,404	968,577	863,371	923,712
2000-01	862,820	1,003,012	1,002,429	1,000,501	791,549	966,918	887,248	939,091
2001-02	942,305	1,084,732	1,037,032	1,105,762	832,690	1,017,614	923,493	993,915
2002-03	1,044,914	1,191,728	1,205,585	1,243,803	889,406	1,083,364	1,006,972	1,069,412
2003-04	1,158,859	1,392,071	1,369,614	1,454,461	938,282	1,155,987	1,073,361	1,138,673
2004-05	1,335,310	1,613,006	1,603,204	1,705,509	1,004,423	1,277,265	1,147,762	1,252,530
2005-06	1,554,473	1,923,732	1,831,114	1,999,109	1,059,904	1,350,300	1,198,613	1,336,002
2006-07	1,812,703	2,212,071	2,066,791	2,301,165	1,132,392	1,430,262	1,275,917	1,435,572
2007-08	2,046,593	2,606,819	2,576,283	2,900,806	1,184,438	1,488,094	1,332,142	1,463,924
2008-09	2,755,613	3,250,185	2,993,036	3,457,911	1,214,543	1,518,238	1,333,622	1,522,737
2009-10	3,084,281	3,730,376	3,628,465	4,156,754	1,273,358	1,577,445	1,409,378	1,558,118
2010-11	3,716,040	4,796,563	4,522,514	4,878,011	1,321,919	1,610,785	1,469,377	1,622,666
2011-12	4,348,235	5,391,251	5,129,104	5,593,345	1,372,921	1,685,129	1,543,499	1,661,638

*Quarterisation of National Income Accounts of Pakistan*

**Appendix H: Quarterly GNP (Market Price)**

Years\ Quarters	Millions Rupees							
	Based on Current Prices				Based on Constant Prices (1999-2000)			
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
1972-73	17,189	20,977	20,269	23,359	222,258	267,175	246,495	263,805
1973-74	21,943	27,662	25,695	30,949	231,532	278,889	252,542	282,773
1974-75	27,358	36,644	34,445	39,263	224,502	293,451	267,991	289,637
1975-76	34,367	43,191	41,494	44,677	247,271	305,872	291,010	303,804
1976-77	39,788	48,405	48,075	51,278	263,804	317,418	308,892	327,324
1977-78	48,665	58,632	56,614	60,183	294,611	362,769	346,540	368,896
1978-79	53,307	65,919	65,012	69,723	307,350	381,896	371,298	388,944
1979-80	63,735	79,471	77,610	86,349	325,652	413,882	399,028	426,802
1980-81	75,412	94,348	91,985	100,701	354,094	436,678	417,492	439,658
1981-82	87,154	112,672	108,395	112,941	364,140	472,177	449,692	462,544
1982-83	103,600	125,797	124,919	130,753	412,579	502,686	492,912	506,137
1983-84	119,401	141,383	147,579	144,289	439,317	518,702	522,884	513,399
1984-85	133,866	161,325	158,633	161,106	457,627	560,509	548,267	550,716
1985-86	148,369	174,550	170,923	175,860	496,054	588,735	568,191	585,428
1986-87	163,318	192,104	187,301	192,107	529,313	622,474	594,767	599,475
1987-88	188,149	220,921	219,991	223,103	543,803	650,520	635,062	632,589
1988-89	208,781	246,184	250,726	260,020	557,211	668,518	666,261	675,588
1989-90	236,499	283,107	274,220	286,179	592,547	719,477	682,386	696,206
1990-91	278,772	331,805	318,719	337,013	626,748	748,089	696,735	718,469
1991-92	328,675	388,548	373,333	395,552	660,489	791,545	742,960	770,383
1992-93	356,407	418,987	419,772	435,849	667,029	787,115	769,063	787,170
1993-94	405,190	482,923	488,231	525,799	694,499	819,802	790,276	804,299
1994-95	476,951	585,931	600,870	619,707	713,228	854,883	847,361	862,174
1995-96	538,711	673,197	659,184	698,851	741,705	907,823	862,465	891,133
1996-97	623,292	780,818	752,046	775,356	763,087	931,924	857,149	871,840
1997-98	687,924	858,946	823,637	858,785	762,064	933,818	894,222	915,164
1998-99	716,483	905,044	846,605	1,076,867	788,821	980,260	906,620	960,978
1999-00	815,290	998,195	958,396	1,006,275	812,617	1,037,453	926,710	1,001,375
2000-01	925,266	1,074,295	1,070,905	1,084,924	851,078	1,033,764	951,548	1,018,286
2001-02	1,007,452	1,150,512	1,108,746	1,209,609	893,485	1,078,443	989,579	1,088,864
2002-03	1,117,500	1,271,928	1,288,919	1,349,113	953,609	1,153,928	1,080,294	1,162,194
2003-04	1,231,403	1,491,334	1,469,507	1,572,813	999,163	1,237,356	1,154,898	1,233,427
2004-05	1,412,161	1,703,687	1,693,931	1,824,464	1,065,274	1,347,364	1,216,813	1,341,095
2005-06	1,653,186	2,030,440	1,945,566	2,143,914	1,130,468	1,424,555	1,277,783	1,434,908
2006-07	1,920,547	2,310,611	2,169,768	2,429,712	1,204,694	1,494,397	1,343,036	1,518,255
2007-08	2,117,229	2,679,325	2,665,876	2,989,286	1,227,499	1,530,148	1,383,211	1,510,103
2008-09	2,912,488	3,394,528	3,127,696	3,635,557	1,292,041	1,585,888	1,396,825	1,604,140
2009-10	3,256,483	3,916,677	3,817,972	4,378,766	1,350,000	1,657,468	1,488,685	1,648,504
2010-11	3,791,362	4,971,255	4,802,171	5,288,308	1,349,498	1,672,841	1,566,955	1,766,848
2011-12	4,451,978	5,622,007	5,485,197	6,119,796	1,404,618	1,756,155	1,653,288	1,824,223

Appendix I

Classification of Quarterly GDP According to Quarterisation Method -Summary					
Section	Components of GDP	% Share in GDP (FY2000-FY2012)	Basis of Quarterisation	Formulae/ Quarterly Proportion	References
<b>3.1</b>	<b>Agriculture</b>	22.71			
3.1.1	Major Crops (MC)	7.73	Observed Quarterly Proportions (Harvest Calendar)	$VAMC_t^q(c) = VAMC_t(c) * [PRMC_t^q(c) / \sum_{q=1}^4 PRMC_t^q(c)]$	PBS (2004)
3.1.2	Minor Crops (MC)	2.73	Observed Quarterly Proportions (Harvest Calendar)	$VAMC_t^q(c) = VAMC_t(c) * [PRMC_t^q(c) / \sum_{q=1}^4 PRMC_t^q(c)]$	PBS (2004)
3.1.3	Livestock (LS)	11.46	Constant (but observed) Quarterly Proportions	$VALS_{1t} = VALS_{4t} = VALS_t * (0.175m_t + 0.25(1 - m_t))$ $VALS_{2t} = VALS_t * (0.35m_t + 0.25(1 - m_t))$ $VALS_{3t} = VALS_t * (0.30m_t + 0.25(1 - m_t))$ Where $m_t=0.6$ (share of milk in total livestock).	Kemal and Arby (2004) and authors' calculations
3.1.4	Fishing	0.37	Constant (but observed) Quarterly Proportions	Quarterly proportions for marine Fish (which is 30 percent of all) are 0.200, 0.307, 0.284, and 0.255 and Land fish ( which is 70 percent of all ) are 0.112, 0.274, 0.350 and 0.265	PBS (2002)
3.1.5	Forestry	0.44	Constant (but observed) Quarterly Proportions	0.201, 0.256, 0.288, and 0.255	Quaidian Economic Consultants (2001)
<b>3.2</b>	<b>Industry</b>	25.12			
3.2.1	Mining and Quarrying	2.49	Actual production	Actual production (quarterly) seasonality	PBS MSB
3.2.2	Manufacturing	18.18			
a)	Large-scale	11.84	Monthly LSM Index	Actual production (quarterly) seasonality	PBS MSB
b)	Small-scale	4.97	Monthly LSM Index	Actual production (quarterly) seasonality of LSM	PBS MSB

Continued on next page

Section	Components of GDP	% Share in GDP (FY2000-FY2012)	Basis of Quarterisation	Formulae/ Quarterly Proportion	References
c)	<i>Slaughtering</i>	1.37	Constant (but observed) Quarterly Proportions	0.18, 0.25, 0.35 and 0.22	PBS (2002a)
3.2.3	Construction	2.27	Monthly cement production	Actual production (quarterly) seasonality of cement production with lead of one quarter	PBS MSB
3.2.4	Electricity & Gas Distribution	2.70	Constant (but observed) Quarterly Proportions	0.245, 0.246, 0.233 and 0.275	PBS (2002b)
<b>3.3</b>	<b>Services</b>	52.17			
3.3.1	Wholesale & Retail Trade	17.53	Indirect approach based upon observed seasonal patterns	Seasonal factors of imports and commodity producing sector	PBS (1995)
3.3.2	Transport Storage & Communication	10.54	Lisman and Sandee (1964)		Lisman and Sandee (1964)
3.3.3	Finance and Insurance	4.51	Indirect approach	M2 seasonality, uniform distribution and constant proportions	Kemal and Arby (2004)
3.3.4	Ownership of Dwellings	2.89	Lisman and Sandee (1964)		Lisman and Sandee (1964)
3.3.5	Public Administration & Defense	6.24	Constant (but observed) Quarterly Proportions	0.244, 0.244, 0.256 and 0.256	Kemal and Arby (2004)
3.3.6	Social and Community Services	10.45	Lisman and Sandee (1964)		Lisman and Sandee (1964)
<b>Overall</b>	<b>GDP (Factor Cost)</b>	100.00			
	Actual/observed data based share used	65	Sections 3.1.1-2, 3.2.1-4, 3.3.1, and 3.3.3		
	Constant (but observed) quarterly proportions used	11.12	Sections 3.3.1-5		
	Lisman and Sandee (1964)	23.88	Sections 3.3.2, -6		
PBS: Pakistan Bureau of Statistics, MSB: Monthly Statistical Bulletin, VA: Value addition, PR: Province					