Explanatory Notes

National Income, Saving and Investment

Gross National Product: Estimates of Gross National Product are prepared by Federal Bureau of Statistics. They are based on the concept and classification of United Nations' System of National Accounts (UN-SNA). GNP estimates are computed by a combination of product, income and expenditure methods. The product method is applied to compute value added in agriculture, mining & querying, manufacturing, electricity & gas distribution, services, wholesale & retail trade, and ownership of dwellings. Income method is used to work out income accruing from transport, storage & communication, banking and insurance, public administration and defence and services sectors. Expenditure method is used to estimate value added in construction on the basis of investment made and the co-efficient of value added.

Gross Fixed Capital Formation: Estimates of Gross Fixed Capital Formation in Pakistan are prepared separately, for private and public sector, by economic activity as well as by capital assets. Estimates of private sector are computed by commodity flow, expenditure (Survey Method) and financial approaches. Public sector investment comprises of investment made by public sector enterprises, autonomous and semi autonomous bodies, and general government. Data in respect of public enterprises are collected from respective agencies whereas the estimates of general government are derived from the classification of demand of grants of the development and non development budgets of federal and provincial governments and local bodies.

Production and Prices

Consumer Price Index: Consumer Price Index (CPI) is main measure of price changes at retail level. It measures the changes in the cost of buying representative fixed basket of goods and services. The series for FY57 to FY76 were available on other than 1959-60 and 1969-70 base that is converted into series with base 1959-60 and 1969-70 respectively.

Laspeyer's formula used to compute CPI is:-

$$CPI = \frac{\sum (P_n / P_0) W_i}{\sum W_i} \times 100$$

Where

P_n = Price of an item in the current period

P_0 = price of an item in base period

W_i = Weight of the i^{th} item in the base period.

The series is not strictly comparable because of the following reasons:-

i) FY50 to FY56 represents average CPI for the industrial workers in Karachi, Lahore and Sialkot only.

ii) FY57 to FY60 represent CPI for government/commercial employees in Karachi only.

iii) FY62 to FY70 represent Average CPI for clerical wages of earners for Karachi, Lahore, Peshawar and industrial workers for Karachi, Lahore and Sialkot.

Wholesale Price Index: Wholesale Price Index (WPI) is designed to measure the directional movements of prices for a set of selected items in the primary and wholesale markets. Items covered in the series are those, which could be precisely defined and are offered in lots by producers/manufacturers. Prices used are generally those, which conform to the primary sellers realization at *ex-mandi* (market), ex-factory or at an organized wholesale level.

Sensitive Price Indicator: The Sensitive Price Indicator (SPI) is computed on weekly basis to assess the price movements of essential commodities at short intervals so as to review the price situation in the country.

Money and Banking

Reserve Money: Reserve Money (M_0) include currency in circulation, other deposits with SBP, currency in tills of scheduled banks, bank deposits with SBP; scheduled banks' demand deposits excluding inter-bank deposits and deposits of central & provisional governments and foreign constituents.

Narrow Money: Narrow money (M_1) including all coins, currency held by the public, other deposit with State Bank of Pakistan (excluding IMF A/C Nos. 1 & 2, SAF loan account, counterpart funds, deposits of foreign central banks, foreign governments, international organizations and deposit money banks) and scheduled banks' demand deposits (excluding inter-bank deposits of central & provincial governments and foreign constituents); scheduled banks' time deposits excluding inter-bank deposits and deposits of central & provisional governments and foreign constituents; resident foreign currency deposits.

Broad Money: Broad money (M_2) includes M_1 and scheduled banks' time deposits, resident foreign currency deposits. Money multiplier is obtained by dividing Broad money (M2) by Reserve money (M_0). From July 1980, computation of monetary statistics adheres to guidelines provided by the IMF.

Liabilities and Assets of the State Bank of Pakistan: The figures relating to assets and liabilities of the State Bank of Pakistan presented in the tables are based on the statutory weekly statements of affairs of the Issue and Banking departments of the State Bank of Pakistan issued in pursuance of section 40 (I) of the State Bank of Pakistan Act, 1956.

Scheduled Banks: "Scheduled Banks" means, "All commercial banks and specialized banks (like IDBP and ADBP etc.) which are included in the list of scheduled banks maintained under sub-section (1) of section 37 of the State Bank of Pakistan Act, 1956."

Scheduled Banks operating in Pakistan with paid-up capital and reserves of an aggregate value not less than Rs 1 billion (Rs 1.5 billion by December 31, 2004, Rs 2 billion by December 31, 2005, Rs 3 billion by December 31, 2006, Rs 4 billion by December 31, 2007, Rs 5 billion by December 31,2008 & Rs 6 billion by December 31, 2009) and conducting their affairs in a manner not detrimental to the interest of their depositors have been declared as scheduled banks.

Non-Banks Financial Institutions: NBFIs are categorized into eight groups, Development Finance Institutions, Leasing Companies, Investment Banks, Modarba Companies, Housing Finance Companies, Mutual Funds, Venture Capital Companies and Discount Houses.

Liabilities and Assets of Scheduled Banks

The items of C*apital* and *Reserves* on the liability side pertain to the principal or head office of the bank.

Capital comprises of paid-up capital of Pakistani banks. In case of foreign banks, it is the equivalent rupee amount kept with the State Bank of Pakistan as reserve capital required to be maintained under the rules.

Reserves: All types of reserves maintained by the scheduled banks

Balances with Other Scheduled Banks exclude the balances with National Bank of Pakistan as an agent of State Bank of Pakistan. These balances are included in 'Balances with State Bank of Pakistan'.

As per established accounting procedure, the reporting branches of scheduled banks adjust certain entries with their Principal/Head (inter-bank) offices to balance their positions. The gross amounts of credits and debits of these adjustments tend to be large compared with other heads of accounts. These adjustments of 'Head office/inter-bank is netted out to consolidate bank-wise position that have been added to arrive at overall position. It is significant to mention that the data on liabilities and assets in this publication may differ when compared with Weekly Press Communiqué due to difference in timing and coverage of the two sets of data.

Deposits

The data on Deposits is collected and compiled on various dimensions explained as under: -

Types of Accounts:- Deposits accounts are classified under five main types viz. current, call, other deposit accounts, saving, and fixed deposits

Category of Deposit Holders:- This describes the main business or profession of the deposit account holder. They are broadly classified as foreign and domestic constituents, which is cascaded down to Government, Non-financial public sector enterprises (NFPSEs), Non-bank financial institutions (NBFIs), Private sector, Trust Fund and Non-profit organizations, Personal, and Others. The Private sector has been further classified in sub-heads such as Agriculture, Fishing, Mining, Manufacturing, Ship breaking, Electricity, Construction, etc.

Rate of interest:- It is the rate offered by scheduled banks on various type of deposits like foreign currency accounts scheme, over five years maturity and unclaimed, over due or matured fixed deposits.

Rate of return on PLS deposits:- It is the rate of profit given by the scheduled banks on various types of deposits such as call, saving, and fixed deposits. The rates are announced after the completion of the period of investment usually a half year based on June and December end in July and January respectively.

Size of accounts for deposits:- The deposits accounts are classified under various classes on the basis of the balances in the respective accounts. As the number of accounts is considerably large, for reporting ease the reporting banks have option to club the accounts and amounts in cases where, the “Nature”, “Type of Accounts”, the “Category of Deposit Holders” and “Rate of Interest/Return” are the same. For such grouped accounts it is the average size of the group instead of actual size of the component that determines the class to which it belongs. It is believed that the estimates would not differ significantly from the actual position.

Debits to deposit and turnover:- The deposits are reported on net basis at the end of half-year. The debits on these accounts help in analyzing the turnover in the respective accounts during the period. The coefficients of turnover are calculated by dividing the debits by the averages amounts on deposits as reported by the banks.

Advances

The main attributes on advances are as under: -

Type of securities:- In banking business, the security or collateral, consists of assets, property, deposits or valuables held as guarantee against a credit or a loan. Type of security helps in the analysis of the quality of advances of the banking system. International classification of securities can be seen under the tables on advances classified by securities. .

Category of borrowers:- Borrowers are first classified on the basis of foreign and domestic constituents. The latter is then further classified into government, non-financial public sector enterprises, non-bank financial institutions, private sector (business), trust funds & non-profit organizations, personal and others.

Rate of interest / return:- This is the cost of using borrowed money expressed as a rate, or a percentage of the principal amount for a period of time usually a year. In case of Islamic modes of financing it is referred as rate of mark-up. For the ease of reporting banks, they are asked to round the rate of interest/ mark-up to two decimal places in multiples of 0.25, for example, 3.00%, 4.25%, and so on.

Size of accounts for advances:- The classification and system for size of accounts for advances is identical to the size of accounts for deposits as explained above.

Capital Market

State Bank General Index: It is weighted index of share prices of all joint stock companies listed at Karachi Stock Exchange. The weights used are the proportion of paid-up capital of sectors to the total paid-up capital of all companies.

Equity Yield: Equity yield is one of the tools for evaluating the performance of different types of investments. An investor can judge the relative return on his or her portfolio holdings by using equity yield data. The equity yield prepared by State Bank of Pakistan is based on dividend and earning yield of ordinary shares of all joint stock companies listed at Karachi Stock Exchange.

Balance Sheet Analysis: The analysis is based on published balance sheets of non-financial companies listed at Karachi Stock Exchange. All shares have been standardized at Rs.10 each to calculate the break up value and earning per ordinary share for the preparation of consolidated statements.

Domestic Public Debt

National Saving Schemes: There have been different saving schemes in Pakistan since independence. The data reflects outstanding position as on end June and includes different type of saving accounts as well as certificates introduced from time to time.

Special Saving Accounts: These are three years maturity accounts. Deposits in these accounts can be made in multiple of Rs.500/-. Profit is paid on the completion of six months. If the profit is not drawn on due date it is deemed to have automatically been reinvested.

Mahana Amdani Account: It is perpetual income scheme. An account holder continuously deposits monthly installments ranging from Rs.500 to Rs. 5000/= and receives profit equal to his monthly deposits till the account lasts. Only one account can be opened in the name of any one person either singly or jointly. However, father, mother or legal guardian may also open an additional account on behalf of a minor.

Saving Accounts: An ordinary saving account through which withdrawals can be made twice a week. Profit in this account is credited on 30th June every year and is worked out at the lowest balance at the credit of an account between the close of the sixth day and end of the month.

Pensioners Benefits Accounts: A new savings scheme exclusively launched for retired Government employees. This scheme offers profit payment facility on monthly basis.

Defence Saving Certificates (DSC): Government of Pakistan introduced DSC scheme in the year 1966. It is the most popular scheme among investors specifically designed to meet the future requirements of the depositors. The only scheme with 10 years maturity with built in feature of automatic reinvestment after the maturity i.e. in case any certificate not encashed on maturity, the balance at credit (principal + profit) without any deduction, shall deemed to have been reinvested for another period of 10 years on filling in a new application form.

Special Savings Certificates (Registered) (SSC-R): This scheme of three years maturity was introduced in February, 1990 keeping in view the periodic needs of the depositors. Certificates are available in the denomination of Rs.500, 1000, 5,000, 10,000, 50,000, 100,000, 500,000 and Rs. 1,000,000/=. Profit is paid on the completion of a period of six months. In case, the profit earned on these certificates is not drawn on due date, it will automatically stand reinvested from date of its accrual.

Regular Income Certificates: The scheme of Regular Income Certificates was introduced in 1993. The scheme is specifically designed to meet the requirements of pensioners, widows, orphans etc.

Bahbood Saving Certificates: A new scheme with 10 years maturity has exclusively been launched for widows only. It offers profit payment facility on monthly basis.

Prize Bonds: A bearer type security available in the denomination of Rs. 200, Rs. 750, Rs. 1,500, Rs. 7,500, Rs. 15,000 and Rs. 40,000. No fixed return is paid but prize draws are held on quarterly basis. The numbers and amount of prizes on various denominations of prize bonds are different

Balance of Payments

Balance of Payments: Balance of Payments (BOP) Statistics in Pakistan is compiled by the State Bank of Pakistan on behalf of the Ministry of Finance, Government of Pakistan. The BOP table had been prepared as per underlying principles of 4th Manual of IMF from July 1984 till the adoption of 5th Manual of IMF in July 2003. The data is collected through International Transactions Reporting System (ITRS) of Authorized Dealers (Banks) Exchange Companies, State Bank of Pakistan, Economic Affairs Division and Finance Division of Ministry of Finance, Customs, Federal Bureau of Statistics, Pakistani Shipping & Air companies, Foreign Shipping & Air Companies operating in Pakistan, and Pakistan's Diplomatic Missions Abroad.

The data is available both in Pak Rupees and equivalent US $. Period average rates are used for conversion. Formats have been revised in 1965, 1985, and 2003. For comparison, data from July 2003 onwards is converted in the format of 1985 in this publication.

Invisible Receipts/Payments by category of transactions: Cash flows of foreign exchange transactions excluding exports and imports routed through banks and monetary authority is termed as invisible receipts/payments.

Exchange rates: Composite rate, two-tier rate structure on foreign exchange was introduced on 22nd July 1998 and subsequently replaced by market based unified exchange rate on 19th May 1999. End month average exchange for SDR/Pak Rupees are taken from International Financial Statistics (IFS) of IMF.

Effective exchange rate: A composite measure of a country's exchange rates (nominal or real) with its most important trading partners. It is calculated as an index of bilateral exchange rates, weighted by the share of each trading partner in imports, exports, or total foreign trade.

Nominal Exchange Rate: The price of one currency in terms of another. By common convention, it is the amount of domestic currency that will purchase one unit of foreign currency; or the price of foreign currency in terms of domestic currency. It may also be defined as the inverse: the amount of foreign currency that will buy one unit of domestic currency.

Nominal Effective Exchange Rate: An index of the bilateral nominal exchange rates of one country relative to its major trading partners. The bilateral nominal exchange rate index with each trading partner is weighted by that country's share in imports, exports, or total foreign trade.

Real Exchange Rate: The price of a basket of goods in one country relative to the price of the same basket in another country, with both prices expressed in the same currency using the nominal exchange rate.

Real Effective Exchange Rate: An index of the price of a basket of goods in one country relative to the price of the same basket in that country's major trading partners. The prices of these baskets should be expressed in the same currency using the nominal exchange rate with each trading partner. The price of each trading partner's basket is weighted by its share in imports, exports, or total foreign trade.

Computation of REER:

CPI-based REER is computed for Pakistan through deflating the nominal effective exchange rate (NEER) - the country's trade weighted nominal exchange rate - by a similarly weighted measure of prices (RPI). The relationship between them is as follows:

$$\text{REER} = \frac{\dfrac{ERI}{ERI^*}}{\dfrac{CPI^*}{CPI}} = \frac{ERI}{ERI^*} \text{ X } \frac{CPI}{CPI^*}$$

= NEER X RPI

where NEER stands for Nominal Effective Exchange Rate and RPI is Relative Price Index. Both indices are constructed as:

⇒ Nominal Effective Exchange Rate (NEER) Index

NEER is an index of the bilateral nominal exchange rates of the country relative to its major trading partners. The bilateral nominal exchange rate index with each trading partner and competitor is weighted by the country's share in imports, exports, or total foreign trade. The NEER is computed as:

$$\text{NEER} = \frac{ERI}{ERI*} ,$$

Where ERI is domestic exchange rate index and ERI* denotes the foreign domestic exchange rate index. The stepwise computation of NEER is being explained as under:

- Construction of Home Country's Exchange Rate Indices (ERI):

$$ERI = \frac{ERI(CurrentPeriod)}{ERI(BasePeriod)} \text{ X } 100$$

and

- Construction of Exchange Rate Indices for all the Trading Partners (ERI*):
  ERI* is constructed in two steps:

1) Firstly, the ERI of all the foreign trading partners is computed as:

$$\text{ERIi}= \frac{ERIi(CurrentPeriod)}{ERIi(BasePeriod)} \text{ X } 100$$

Where i = 1, 2, - - - k

Note: The base period of ERI should be similar to that selected for home country.

2) Secondly, the above computed ERI of each trading partner's country is multiplied by its respective trade weight. In mathematical terms, it is equal to:

ERI* = Exp [w_1 Ln[ERI_1] X Exp [w_2 Ln[ERI_2] X - - - X Exp [w_k Ln[ER_k]

Or ERI* = Exp [$\prod_{j \neq i} w_{ij} Ln(ERI_j)$]

Where:

Exp = Exponential (Antilog)

Ln = Natural Log

w = Trade Weight

⇒ Relative Price Index (RPI)

RPI is an index of the price of a basket of goods in one country relative to the price of the same basket in that country's major trading partners. The price of each trading partner's basket is weighted by its share in imports, exports, or total foreign trade. For the construction of RPI, we need:

- Price index of major trading partners and competitors
- Price index of Pakistan
- Trade weights.

The RPI is computed as:

$$\text{RPI} = \frac{CPI}{CPI*} ,$$

Where CPI denotes the domestic consumer price index and CPI* denotes the foreign consumer price index. The stepwise computation of RPI is being explained as under:

- Construction of Home Country's CPI:

$$CPI = \frac{CPI(CurrentPeriod)}{CPI(BasePeriod)} \text{ x } 100 ,$$

and

- Construction of CPI for all the Trading Partners (CPI*):
  CPI* is constructed in two steps:

1) Firstly, the CPI of all the foreign trading partners is computed as:

$$CPI_i = \frac{CPI_i(CurrentPeriod)}{CPI_i(BasePeriod)} \text{ X } 100$$

Where i = 1, 2, - - - - k

Note: The base period of CPI should be similar to that selected for home country

2) Secondly, the above computed CPI of each trading partner's country is multiplied by its respective trade weight. In mathematical terms, it is equal to:

CPI* = Exp [w_1 Ln[CPI_1] X Exp [w_2 Ln[CPI_2] X - - - X Exp [w_k Ln[CPI_k]

Or

$$\text{CPI*} = \text{Exp}\left[\prod_{j \neq i} w_{ij} Ln(CPI_j)\right]$$

Where:

Exp = Exponential (Antilog)

Ln = Natural Log

w = Trade Weight

It should be noted that a rise in the CPI of the home country relative to that of the foreign country denotes a real appreciation, and is associated with a loss in competitiveness of the home country.

Indices of REER and NEER: Indices REER and NEER from January 1995 to March 2001 are based on base 1992 for onwards on base 2000. Research Department of State Bank of Pakistan compiles data. From May 1999 due to adoption of unified rate the index is switched from official index to composite index.

Foreign investments: The data on direct and portfolio investment in Pakistan are the net flows captured through the banking system and exchange companies operating in Pakistan. The data of direct investment in terms of capital equipment and reinvested earnings is collected through annual enterprises' survey of foreign investments. Compilation of foreign direct investment data by economic group commenced from July 2001 onwards.

Foreign Trade

Foreign Trade Statistics: Foreign trade statistics compiled by Federal Bureau of statistics refers to the physical movements of merchandise goods into and out of the custom territory of Pakistan, on custom records basis irrespective of any monetary exchange. Foreign trade includes exports, re exports, imports and re imports carried through sea land and air routes. For trade through parcels post monthly returns are received from General Post Offices.

The valuation in case of exports and imports are based on F.O.B. and C.I.F. basis respectively accepted by Custom authority for realization of duty. The data relating quantity are those which are given in bills of entry and shipping bills. The weights recorded are net weight of packing or container.

From July, 1989 to June 2002, Pakistan Standard Trade Classification Revision-3 (PSTC-R3) was used for compilation and dissemination of external trade statistics. Federal Bureau of Statistics has adopted the United Nations HS Commodity Classification System which is being used for commodity classification and compilation of external trade statistics since July,2002.

Re-Export: Goods imported and returned to the exporting country for any reason without any modification or change in its original shape or form, is termed as re-export.

Re-Import: Goods exported and returned to the consignor country without any modification or change in the original shape or form is termed as re-import.

Foreign Trade Indices: Laspeyer's formula in its original form is used in the computation of trade indices that is as under.

$$\text{Unit Value Index} = \frac{\sum P_n \times Q_0}{\sum P_0 \times Q_0} \text{ x } 100$$

$$\text{Quantum Index} = \frac{\sum Q_n \times P_0}{\sum Q_0 \times P_0} \text{ x } 100$$

Where:

P_n = Price (Unit Value) of each item during the current period

P_0 = Price (Unit Value) of each item during the base period

Q_n = Quantity data (Volume) of each item during the current period

Q_0 = Quantity data (Volume) of each item during the base period.

Terms of Trade: It shows the average price of a country's aggregate exports in relation to the average price of its imports.

$$\text{Terms of Trade} = \frac{\text{Index of Unit Values of Exports}}{\text{Index of Unit Value of Imports}} \text{ x } 100$$

External Debt

External Debt: Gross external debt, at any given time, is the outstanding amount of those actual current and not contingent liabilities that require payment(s) of principal and/or interest by the debtor at some point(s) in the future and that are owed to nonresidents by the residents of an economy.

Public and Publicly guaranteed debt: External obligations of a public debtor including national government and autonomous bodies and external obligations of a private debtor that are guaranteed for repayment by a public entity.

Private un-guaranteed external debt: Private un-guaranteed external debt is defined as the external liabilities of the private sector, the servicing of which is not contractually guaranteed by a public entity resident in the same economy as the debtor.

Population and Employment

Population: Since independence to date five censuses have been conducted, the first in 1951, the second in 1961, the third, fourth and fifth in 1972, 1981 and 1998 respectively.

Civilian Labour Force: For 1951 census, Civilian Labour Force comprised of all the persons aged 12 years and above. All the persons reported “Under 12 years” were excluded from the scope of labour force. In other censuses, all persons reported “10 years and above” were included in labour force.