National Income, Saving and Investment

Gross Domestic Product: GDP, of a country is one of the ways of measuring the size of its economy. GDP is defined as the total market value of all final goods and services produced within a given country in a given period of time (usually a calendar year). It is also considered the sum of value added at every stage of production (the intermediate stages) of all final goods and services produced within a country in a given period of time, and it is expressed in monetary terms.

Followings are the three approaches to measuring and understanding GDP:

i). Expenditure Based

Expenditure-based gross domestic product is total final expenditures at purchasers' prices (including the f.o.b. value of exports of goods and services), less the f.o.b. value of imports of goods and services.

ii). Income Based

Income-based gross domestic product is compensation of employees, plus taxes less subsidies on production and imports, plus gross mixed income, plus gross operating surplus.

iii). Output Based

Output-based gross domestic product is the sum of the gross values added of all resident producers at basic prices, plus all taxes less subsidies on products.

Gross National Product GNI measures the total economic growth of a country and takes into consideration income and taxes earned both internationally and domestically, while GNP only measures the income and taxes earned by domestic citizens. Estimates of Gross National Product are prepared by Pakistan 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 defense 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

All the three measures of inflation, viz. CPI (National, Urban and Rural), WPI and SPI are computed by the Laspeyres Index formula. Currently, the base year for all the indices is the year 2015-16. CPI baskets for urban and rural areas contains 356 and 244 consumers' items respectively; WPI basket contains 419 items; SPI contains 51 items.

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 and to gauge the increase in the cost of living in reported period. 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 FY60 represent CPI for government/commercial employees in Karachi only.

ii). FY61 to FY70 represent Average CPI for clerical wage earners in Karachi.

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.

Public Finance

Debt Rescheduling: Debt Rescheduling is undertaken through an agreement between the borrower and the creditor to re-arrange the schedule of principle and interest payments due on the debt outstanding. In addition, the rescheduling agreement may include provisions for debt relief to enable the borrower to regain its financial strength to service the rescheduled debt obligation.

Direct Tax: A tax levied directly on the taxpayer such as income and property taxes.

Indirect Tax: A tax levied on goods or services rather than individuals and is ultimately paid by consumers in the form of higher prices such as sales tax or value added tax.

Money and Banking

Reserve Money: Reserve Money (M0) is an indicator used to measure money supply in the economy and includes currency in circulation (held with Public), other deposits with State Bank of Pakistan; currency in tills of schedules bank's and bank deposits with SBP. M0 is used to measure the most liquid assets which can be spent most easily. M0 is sometimes referred to as the monetary base.

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. Narrow Money is an indicator used to measure money supply in the economy

Broad Money: Broad money (M2) includes M1 and scheduled banks' time deposits, resident foreign currency deposits. Money multiplier is obtained by dividing Broad money (M2) by Reserve money (M0). From July 1980, computation of monetary statistics adheres to guidelines provided by the IMF. Broad Money is an indicator used to measure money supply in the economy and the key economic indicator used to forecast inflation

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."

Non-Banks Financial Companies: NBFCs 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.

Other Depository Corporations: ODCs consists of all resident financial corporation's (except the central bank) and quasi-corporations that are mainly engaged in financial intermediation and that issue liabilities included in the national definition of broad money. It includes Scheduled Banks, Development Financial Institutions (DFIs), Microfinance Institutions (MFIs) and all Depository NBFIs.

Depository Corporations: DCs refers collectively to the Other Depository Corporations (ODCs) and Central Bank (CB) where Central Bank (CB) is the national financial institution that exercises control over key aspects of the financial system and caries out such activities as issuing currency, regulation money supply and credit, managing international reserves, transacting with the IMF, and providing credit to other depository corporations.

Financial Auxiliaries: These include financial corporations such as securities brokers, loan brokers, floatation corporations, insurance brokers etc. They also include corporations whose principal function is to guarantee, by endorsement, bills or similar instruments intended for discounting or refinancing by financial corporations, and also corporations which arrange hedging instruments such as swaps, options, and futures or other instruments which are continually being developed as a result of wide-ranging financial innovation.

Non-financial Public Sector Enterprises: NFPSEs are controlled by government, which may be exercised through ownership of more than half the voting shares, legislation, decree, or regulations that establish specific corporate policy or allow the government to appoint the directors.

Other Financial Intermediaries: The financial corporation's engaged in financial intermediation, which raises funds on financial markets, but not in the form of deposits, and uses them to acquire other kind of financial assets. These include discount houses, venture capital companies, mutual funds, housing finance companies and cooperative banks except Punjab provincial cooperative bank.

Liabilities and Assets of Scheduled Banks

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

Capital: It 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.

Bills Purchased & Discounted

These refer to advances extended through discounting or purchasing of inland and foreign bills.

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, overdue 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.

Rate of Margin:- Margin for collateral is the excess of the market/assessed value of the collateral over the amount of advance.

Outstanding Deposits: It shows position of deposits held by banks at the end of the period (30th June or 31st December). Deposits are the amount held in various types of deposit accounts by bank, such as demand deposits, time and saving deposits. Deposits include all types of deposits excluding interbank deposits, placements and margin deposits (deposits held by banks as collateral against letters of credits, letters of guarantees).

Outstanding Advances: It means the advances/loans recoverable at the end of the period (30th June or 31st December). Advances includes all type of advances except interbank placements and is the amount of money borrowed from banks for a period of time at a rate of interest and at terms of repayments as agreed between the borrower and the banks backed by a collateral.

Data on regional outstanding advances is based on disbursements by the bank branches located in the respective regions and place of actual utilization for these advances may be different from the place of disbursements. The regional position may not reflect the true picture since offices of large companies operating in different regions might have used banking facilities located in different regions.

Government of Pakistan Market related Treasury Bills: They are the instruments created when Government borrows from the State Bank. They are six month T-bill and their rates are determined on the basis of weighted average arrived in last six month Market Treasury Bill auction. They are also called as 'Market Replenishment Treasury Bills'.

Market Treasury Bills (MTBs): They are the short term instruments of the Government of Pakistan with tenors available in 3, 6 and 12 months. They are also sold through Primary Dealers in auctions held on fortnightly basis. They are zero-coupon securities and are sold at discount to the face value.

MTB auctions are held fortnightly (Wednesday) on multi-priced basis. Only Primary Dealers are allowed to participate in the auctions. Announcement of auctions are done two days prior to auction date. SBP decides the target and cut offs.

Pakistan Investment Bonds (PIBs): They are the long term instruments of the Government of Pakistan with tenors available in 3, 5, 10, 15 and 20 years. They are sold through Primary Dealers (Institutions appointed by the SBP to participate in Government Securities Auctions) in auctions as and when announced (on quarterly basis). They are coupon bearing instruments and issued in scrip less (without physical form) form with interest payment on biannual basis.

PIB auctions are held on as and when indicated with target amount and Coupon rates by the MOF. Primary Dealers are allowed to participate in the auction which is decided on multi-priced basis. SBP announces the auction prior to 14 days of auction date to allow short selling to the Primary Dealers on when issued basis. SBP decides the cutoff in consultation with MOF.

Discount rate: Discount is the rate at which SBP provides three-day repo facility to banks, acting as the lender of last resort.

Coupon Rate: Coupon rate is interest rate payable on bond's par value at specific regular periods. In PIBs they are paid on biannual basis.

KIBOR – (Karachi Interbank Offered Rate): Interbank clean (without collateral) lending/borrowing rates quoted by the banks on Reuters are called KIBOR Rates. The banks under this arrangement quote these rates at specified time i.e. 11.30 AM at Reuters. Currently 20 banks are member of KIBOR club and by excluding 4 upper and 4 lower extremes, rates are averaged out that are quoted for both ends viz: offer as well bid. The tenors available in KIBOR are one week to 3 years. KIBOR is used as a benchmark for corporate lending rates.

Capital Market

Index Number: Stock market index is a used for measuring changes in the prices of stock market securities in respect of the base year prices. The index is used as an indicator of the overall performance of the economy.

KSE-100 Index: The KSE-100 Index was introduced in November 1991 with base value of 1,000 points. The Index comprises of 100 companies selected on the basis of sector representation and highest market capitalization, which captures over 80% of the total market capitalization of the companies listed on the Stock Exchange. One company from each sector on the basis of the largest market capitalization and the remaining companies are selected on the basis of largest market capitalization in descending order. This is a total return index i.e. dividend, bonus and rights are adjusted.

All Share Index: The KSE all share indexes was constructed and introduced on September 18, 1995. This is also a total return index (dividend, bonus and adjusted rights shares) computed for all companies listed at PSX.

State Bank General Index: It is weighted index of share prices of all joint stock companies listed at Pakistan 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 Pakistan Stock Exchange.

Market Capitalization of ordinary Shares: The Market Capitalization is the total market value of ordinary shares comprising the General Index. The market value is worked out by multiplying the market price by the total number of shares outstanding and added together for the component groups as also for the entire list to compile the series.

Balance Sheet Analysis: The analysis is based on published balance sheets of non-financial companies listed at Pakistan Stock Exchange. All shares have been standardized at Rs.10 each to calculate the breakup value and earnings 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 Savings Accounts: This three years maturity scheme was introduced in February, 1990. The deposits are maintained in form of an account. Profit is paid on the completion of each period of six months. The minimum investment limit in this scheme is Rs.500. There is no maximum limit, however, the deposits are required to be made in multiple of Rs.500.

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.

Savings Accounts: These are ordinary accounts and frequent withdrawals (twice a week) can be made from this account. The minimum investment limit is Rs.100 in the scheme besides no maximum limit. However, only one account can be opened by person at an office of issue. The deposits can be withdrawn any time from the date of deposit. However, there is a limit of two withdrawals within a week's time.

Pensioners' Benefit Account: This ten years' maturity scheme was launched by the Government on 19th January, 2003. The deposits are maintained in the form of accounts and the profit is paid on monthly basis reckoned from the date of opening of the account. The pensioners of Federal Government, Provincial Governments, Government of Azad Jammu & Kashmir, Armed Forces, Semi Government and Autonomous bodies are allowed to invest.

Defense 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 enchased 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. These certificates are available in the denominations of Rs.500, Rs.1000, Rs.5,000, Rs.10,000, Rs.50,000, Rs.100,000, Rs.500,000 and Rs.1,000,000. The minimum investment limit is Rs.500/-, however, there is no maximum limit of investment in this scheme.

Special Savings Certificates (Registered): This three years maturity scheme was introduced in February, 1990. These certificates are available in the denomination of Rs.500, Rs.1000, Rs. 5,000, Rs. 10,000, Rs. 50,000, Rs. 100,000, Rs. 500,000 and Rs. 1,000,000. Profit is paid on the completion of each period of six months. The minimum investment limit is Rs. 500, however, there is no maximum limit of investment in the scheme. 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: This five years' maturity scheme for general public was launched on 2nd February, 1993Profit on this scheme is paid on monthly basis reckoned from the date of issue of certificates. These certificates are available in the denomination of Rs.50,000, Rs.100,000, Rs.500,000, Rs.1,000,000, Rs.5,000,000 & Rs.10,000,000.

Bahbood Savings Certificates: This is a ten years' maturity scheme, launched by the Government on 1st July, 2003. Initially it was meant for widows only, however, later on the Government extended the facility for senior citizens aged 60 years and above from 1st January, 2004. These certificates are available in the denominations of Rs.5,000/-, Rs.10,000/-, Rs.50,000/-, Rs.100,000/-, Rs.500,000 and Rs.1,000,000/-. Profit is paid on monthly basis reckoned from the date of purchase of the certificates. Only widows and senior citizens aged 60 years and above are eligible to invest. The minimum investment limit in this scheme is Rs.5,000, whereas, the maximum limit is Rs.3,000,000/-.

National Savings Bonds: The National Savings Bonds were introduced in December 2009 which is first ever registered tradable Government's Security and can be pledge anywhere in Pakistan. The maturity period of NSBs shall be three, five and ten years and are not redeemable before the maturity. The minimum investment limit is Rs. 20,000 which is issued in a multiple of Rs. 10,000.

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

Premium Prize Bonds: Premium Prize Bonds (Registered) of Denomination RS. 40,000 launched in March 2017.

Domestic Debt

Domestic debt refers to the debt owed to creditors resident in the same country as the debtor. It can be of sovereign nature, i.e., borrowed by a government or non-sovereign, i.e., borrowed by the corporate. Sovereign domestic debt in Pakistan is further classified into three main categories: permanent debt, floating debt and unfunded debt.

i. Permanent Debt: Permanent debt includes medium and long-term debt such as Pakistan Investment Bonds (PIB) and prize bonds.

ii. Floating Debt: Floating debt consists of short-term borrowing in the form of T-bills.

iii. Unfunded Debt: Unfunded debt refers mostly to outstanding balances of various national saving schemes.

iv. Foreign Currency Instruments: It includes FEBCs, FCBCs, DBCs and Special US Dollar Bonds held by the residents.

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. From July 2013, BOP is being compiled as per the guidelines of 6th Manual of IMF. 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, Pakistan 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 exchange rates are used for conversion. Formats have been revised in 1965, 1985, 2003 and 2013. 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: In May, 1972, PKR had devalued by 57 percent by the Government of Pakistan. Managed floating exchange rates were adopted with effect from January, 1982. 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. Monthly average and End month average exchange for Pak Rupees /SDR are taken from International Financial Statistics (IFS) of IMF. Back series exchange rates of currencies not available with Statistics Department of SBP are collected from IFS database of IMF and calculated as cross rate of US dollar per unit of foreign currencies in IFS and Pak Rupees per unit of US dollar available with SBP..

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:

$$REER = \frac{\frac{\mathrm{ERI}}{\mathrm{ERI*}}}{\frac{\mathrm{CPI*}}{\mathrm{CPI}}} = \frac{ERI}{ERI*} \times \frac{CPI}{CPI*}$$

$$= NEER \times RPI$$

Where NEER stands for Nominal Effective Exchange Rate and RPI is Relative Price Index.

Both indices are constructed as described below separately:

- ***Nominal Effective Exchange Rates (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:

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

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):

$$ERI = \frac{ERI\ (Current\ Period)}{ERI\ (Base\ Period)} \times 100$$

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:

$$ERIi = \frac{ERIi\ (Current\ Period)}{ERIi\ (Base\ Period)} \times 100$$

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] × Exp [w_2 Ln[ERI_2] × - - - × Exp [w_k Ln[ERI_k]

Or

$$ERI^* = Exp[\prod_{j \neq i} wij\ Ln(ERI)_j]$$

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:

$$RPI = \frac{CPI}{CPI^*}$$

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:

$$CPI = \frac{CPI\ (Current\ Period)}{CPI\ (Base\ Period)} \times 100$$

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:

$$CPIi = \frac{CPIi\ (Current\ Period)}{CPIi\ (Base\ Period)} \times 100$$

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] × Exp [w_2 Ln[E=CPI_2] × - - - × Exp [w_k Ln[CPI_k]

Or

$$CPI^* = Exp[\prod_{j \neq i} wij \ Ln(CPI)_j]$$

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 of REER and NEER from January 1970 to June 2001 are based on base 2000 and for onwards on base 2010. From May 1999 due to adoption of unified rate the index is switched from official index to composite index. CPI data release by Pakistan Bureau of Statistics is used for calculation of REER indices. Splicing technique is used for CPI where actual base is revised to new base.

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. Sector-Wise Net Inflow of Foreign Direct Investment is available from July 1996 however, new format compilation of foreign direct investment data by economic group commenced from July 2001 onwards.

Foreign Trade

Foreign Trade Statistics: The balance of trade is the difference between the monetary value of exports and imports for an economy over a certain period of time. Foreign trade statistics compiled by Pakistan 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 trade data of SBP is, on the other hand, based on realization of export proceeds and import payments made through banking channel for goods exported and imported. The trade transactions such as land borne trade, imports through foreign economic assistance and personal baggage etc. are not covered in the reporting by the banks. Data on these transactions are collected from the relevant sources and included in the exports receipts and import payments reported by the banks to arrive at the overall trade data. Still some discrepancies may arise in the two sets of trade data due to valuation, timing and coverage of transactions.

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. Pakistan 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: These indices are used to measure changes in the unit value and quantity of Exports & Imports with reference to base year. Laspeyer's formula is used for the computation of these indices that is as under.

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

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

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 change in the average price of a country's aggregate exports in relation to the change in average price of its imports.

$$Terms\ of\ Trade = \frac{Index\ of\ Unit\ Values\ of\ Exports}{Index\ of\ Unit\ Values\ of\ Imports} \times 100$$

External Debt

External Debt: Gross External debt, at any given time, is the outstanding amount of those liabilities that require payment(s) of principal and interest by the debtor at some point(s) in the future and that are owed to nonresidents by the residents of an economy.

Private Non-Guaranteed Debt: Private non-guaranteed debt is defined as the external liabilities of the private sector, the servicing of which is not guaranteed by Government of the economy as that of the debtor.

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.

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.