

Annexure A: Data Explanatory Notes

- 1) **GDP:** In case of an ongoing year, for which actual GDP data is yet not available, SBP uses the GDP target given in the Annual Plan by the Planning Commission in order to calculate the ratios of different variables with GDP, e.g., fiscal deficit, public debt, current account balance, trade balance, etc. SBP does not use its own projections of GDP to calculate these ratios in order to ensure consistency, as these projections may vary across different quarters of the year, with changing economic conditions. Moreover, different analysts may have their own projections; if everyone uses a unique projected GDP as the denominator, the debate on economic issues would become very confusing. Hence, the use of a common number helps in meaningful debate on economic issues, and the number given by the Planning Commission better serves this purpose.
- 2) **Inflation:** There are three numbers that are usually used for measuring inflation: (i) period average inflation; (ii) YoY or *yearly* inflation; and (iii) MoM or *monthly* inflation. Period average inflation refers to the percent change of the *average* CPI from July to a given month of the year over the corresponding period last year. YoY inflation is percent change in the CPI of a given month over the same month last year; and monthly inflation is percent change of CPI of a given month over the previous month. The formulae for these definitions of inflation are given below:

$$\text{Period average inflation } (\pi_{\text{Ht}}) = \left(\frac{\sum_{i=0}^{t-1} I_{t-i}}{\sum_{i=0}^{t-1} I_{t-12-i}} - 1 \right) \times 100$$

$$\text{YoY inflation } (\pi_{\text{YoYt}}) = \left(\frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

$$\text{Monthly inflation } (\pi_{\text{MoMt}}) = \left(\frac{I_t}{I_{t-1}} - 1 \right) \times 100$$

Where I_t is consumer price index in t^{th} month of a year.

- 3) **Change in debt stock vs. financing of fiscal deficit:** The change in the stock of public debt does not correspond with the fiscal financing data provided by the Ministry of Finance. This is because of multiple factors, including: (i) The stock of debt takes into account the gross value of government borrowing, whereas borrowing is adjusted for government deposits with the banking system, when calculating the financing data; (ii) changes in the stock of debt also occur due to changes in the exchange rate, which affects the rupee value of external debt, and (iii) the movement of various other cross-country exchange rates also affect the US Dollar rate and, hence, the rupee value of external debt.
- 4) **Government borrowing:** Government borrowing from the banking system has different forms and every form has its own features and implications, as discussed here:
 - (a) Government borrowing for budgetary support:

Borrowing from State Bank: The federal government may borrow directly from SBP either through the “Ways and Means Advance” channel or through the purchase (by SBP) of Market Related Treasury Bills (MRTBs). Ways and Means Advance allows government to borrow up to Rs 100 million in a year at an interest rate of 4 percent per annum; higher amounts are realized through the purchase of 6-month MTBs by SBP at the weighted average yield determined in the most recent fortnightly auction of treasury bills.

Provincial governments and the Government of Azad Jammu & Kashmir may also borrow directly from SBP by raising their debtor balances (overdrafts) within limits defined for them. The interest rate charged on the borrowings is the three month average yield of 6-month MTBs. If the overdraft limits are breached, the provinces are penalized by charging an incremental rate of 4 percent per annum.

Borrowing from scheduled banks: This is mainly through the fortnightly auction of 3, 6 and 12-month Market Treasury Bills (MTBs). The Government of Pakistan also borrows by a quarterly auction of 3, 5, 10, 15, 20 and 30 year Pakistan Investment Bonds (PIBs). However, provincial governments are not allowed to borrow from scheduled banks.

(b) Commodity finance:

Both federal and provincial governments borrow from scheduled banks to finance their purchases of commodities e.g., wheat, sugar, etc. The proceeds from the sale of these commodities are subsequently used to retire commodity borrowing.

5) Differences in different data sources: SBP data for a number of variables, such as government borrowing, foreign trade, etc – often do not match with the information provided by MoF and PBS. This is because of differences in data definitions, coverage, etc. Some of the typical cases have been given below.

- (a) **Financing of budget deficit (numbers reported by MoF vs. SBP):** There is often a discrepancy in the financing numbers provided by MoF in its quarterly tables of fiscal operations and those reported by SBP in its monetary survey. This is because MoF reports government bank borrowing on a cash basis, while SBP's monetary survey is compiled on an accrual basis, i.e., by taking into account accrued interest payments on T-bills.
- (b) **Foreign trade (SBP vs PBS):** The trade figures reported by SBP in the *balance of payments* do not match with the information provided by the Pakistan Bureau of Statistics. This is because the trade statistics compiled by SBP are based on exchange record data, which depend on the actual receipt and payment of foreign exchange, whereas the PBS records data on the physical movement of goods (customs record). Furthermore, SBP reports both exports and imports as free on board (fob), while PBS records exports as free on board (fob) and imports include the cost of freight and insurance (cif).

In addition, the variation in import data also arise due to differences in data coverage, e.g., SBP import data does not include Non-Repatriable Investments (NRI) by non-resident Pakistanis,¹ imports under foreign assistance, land-borne imports with Afghanistan, etc. In export data, these differences emerge as PBS statistics do not take into account short shipments and cancellations, while SBP data does not take into account land borne exports to Afghanistan, export samples given to prospective buyers by exporters, exports by EPZs, etc.

¹ The non-repatriable investment (NRI) consists of small investments made by expatriate Pakistanis transporting machinery into the country that has been bought and paid for abroad and the purchases made from the *duty-free shops*.