Annexure: 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 (national, urban, or rural) 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:

Period average inflation (π_{Ht}) = $\left(\dfrac{\sum\limits_{i=0}^{t-1} I_{t-i}}{\sum\limits_{i=0}^{t-1} I_{t-12-i}} - 1 \right) \times 100$

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

Monthly inflation (π_{MoMt}) = $\left(\dfrac{I_t}{I_{t-1}} - 1 \right) \times 100$

Where I_t is consumer price index in t^{th} month of a year. The CPI can be national, urban or rural.
For detailed information on the methodology, please see:
http://www.pbs.gov.pk/content/methodology-2

3) **Change in debt stock vs. financing of fiscal deficit:** The change in the stock of gross 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 financing is calculated by adjusting the government borrowing with its deposits held with the banking system; (ii)

changes in the stock of debt also occur due to movements in exchange rates, both PKR and other currencies against US Dollar, which affect 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 at a time 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 (AJK) 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. However, the Federal Government has taken over from the State Bank of Pakistan (SBP) the business of direct credit to provincial governments on 29th June 2020. In this regard, the federal government has executed tripartite agreements with four provincial governments and SBP (as executer) for extension of Ways and Means loans on account of Federal Government Central Account No.I (non-food) on 29th June 2020.

Borrowing from scheduled banks: This is mainly through (i) fortnightly auction of 3, 6 and 12-month Market Treasury Bills (MTBs); (ii) monthly auction of 3, 5, 10, 15, 20 and 30 year fixed rate Pakistan Investment Bonds (PIBs); (iii) fortnightly auctions of 3, 5, 10 year floating rate PIBs; (iv) Sukuk and (v) Bai Muajjal of Sukuk (on deferred payment basis). 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 banking data, which depends on the actual receipt and payment of foreign exchange, whereas the PBS records data on the physical movement of goods (customs record).