Annexure A: Data Explanatory Notes

1) **GDP:** SBP uses GDP estimates of PBS for all analytical purposes. However, for an ongoing year, it uses the GDP target for the year, given in the Annual Plan by the Planning Commission. Ratios of different variables with GDP, e.g., fiscal deficit, public debt, current account balance, trade balance, etc., are calculated on the basis of Planning Commission's number of GDP target. 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:

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

   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.

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 in fiscal 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). The Ways and Means Advance is extended for the government borrowings 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) **Provincial fiscal balance:** The financing numbers in the provincial fiscal operations data are in line with balances with SBP: a negative number means the province has a budget surplus, and a positive number means it has a budget deficit that is financed through borrowing from SBP (i.e., by utilizing its overdraft facility).

6) **Differences in different data sources:** SBP data for a number of variables, such as government borrowing, public debt, debt servicing, 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) **Public debt (MoF vs. SBP):** According to SBP data, public debt reached Rs 16.3 trillion by end June 2014 (64.3 percent of GDP), while the Ministry of Finance has reported public debt at Rs 16.0 trillion (62.8 percent of GDP) for the same period (**Table 1 & 2**). This disparity in debt numbers is due to differences in coverage of public debt reported by the two organizations.

Table 1: Public Debt -Ministry of Finance
billion Rupees

	FY11	FY12	FY13	FY14
I. Government external debt	4,685	5,016	4,849	5,046
II. Government domestic debt	6,016	7,637	9,517	10,915
Public debt (I+II)	**10,700**	**12,653**	**14,366**	**15,961**
Public debt/GDP	**58.5**	**63.1**	**63.9**	**62.8**

Source: Ministry of Finance

The SBP follows IMF guidelines for compiling public debt, which state, "public sector includes the general government, monetary authorities, and those entities in the banking and other sectors that are public corporations."[1] Thus, public debt reported by SBP, is composed of four broad categories: (i) government domestic debt; (ii) government external debt; (iii) IMF loans; and (iv) external liabilities. It may be noted, however, that due to the unavailability of detailed information, SBP public debt numbers do not include PSE's debt.

While both MoF and SBP follow the same definition of government domestic debt, the coverage of government external debt compiled by MoF differs from that of SBP. Specifically, MoF does not include short-term debt, military debt and external liabilities in its compilation of the government external debt. As a result, overall public debt numbers from these two sources do not match.

Table 2: Public Debt - SBP

billion Rupees; percent

	FY11	FY12	FY13	FY14
I. Government external debt (i+ii+iii)	3,988.7	4,364.5	4,311.1	4,791.3
i. Medium & long-term	3921.0	4318.7	4303.2	4718.5
ii. Military	11.6	9.8	7.1	3.5
iii. Short-term debt	55.0	36.1	0.8	69.3
II. From IMF	768.7	694.3	434.8	298.4
III. External liabilities	222.1	227.3	307.8	324.2
IV. Government domestic debt	6,012.2	7,638.3	9,520.9	10,907.0
Public debt (I+II+III+IV)	**10,990.7**	**12,924.3**	**14,574.7**	**16,321.0**
Public debt/GDP	**60.1**	**64.5**	**64.8**	**64.3**

Source: State Bank of Pakistan

(c) **Interest payments on domestic debt (SBP vs MoF):** SBP calculates interest payments on an accrual basis, whereas MoF reports the actual interest paid on T-bills during the year.

(d) **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,[2] 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.

7) The data on net incurrence of FX liabilities during a period does not tally with net change in external debt stock as reported in **Chapter 6**. This difference stems mainly from two components:

[1] Source: IMF (2003), "External Debt Statistics, Guide for Compilers and Users."
[2] 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.*

IMF loan for BoP support, and transactional gains and losses. Net inflows/outflows from IMF for BoP support are included in the computation of external debt, whereas the same is excluded from balance of payments – this item is shown below the line. Similarly, external debt denominated in currencies other than the US dollar is revalued at prevailing exchange rate, to compute the external debt stock at the end of certain period. Therefore, a part of the change in debt stock between two periods is explained by this revaluation.