



## Past performance of key asset classes-nominal, real and risk-adjusted returns

We have analyzed the past performance of different domestically available investment options comprising Treasury Bills, Bank Deposits, National Savings Schemes (NSS), Pakistan Investment Bonds (PIBs), Equities, and Capital Protected Strategy (CPS) for a thirteen year period from January 2001 to December 2013. During the same time period headline inflation, as measured by Consumer Price Index (CPI), averaged 9.0% per annum and Pak Rupee depreciation against US\$ averaged 4.7% per annum.

T Bills are zero coupon short term sovereign debt instrument issued in 3, 6 and 12 month tenors. National Savings Schemes (NSS), representing unfunded government debt, are non-tradable instruments of various maturities. For our study, we have used Special Savings Certificates as a proxy for NSS. For bank deposits, we have used 6-12 month TDR rates as mentioned in the SBP statistical bulletin. Under the Capital Protected Strategy (CPS) investment is initially made in risk free asset (T-bills) and as the value of the portfolio grows it is gradually transferred to the risky asset (equities). The total stock market capitalization is currently around US\$67 billion, while the benchmark KSE 100 Index represents 86% of the total stock market capitalization.

The historical analysis, as summarized in the table below, shows that Equities offered by far the best nominal and real return among all asset classes in our study. However, the Sharpe Ratio, which is used to calculate the risk-adjusted returns, shows that Capital Protected Strategy offered the best risk-adjusted return during the 13-year period. Not only the capital remained protected, but the attractive nominal return of about 14.5% per annum was realized with a relatively low risk level (standard deviation of 8.7%). T-bills compensated for inflation but offered negligible real return to the investors. While return on bank deposits did not even match inflation during this period. In our view, investors should focus on real (inflation adjusted) and risk-adjusted returns while making their investment decisions.

from January 2001 to December 2013

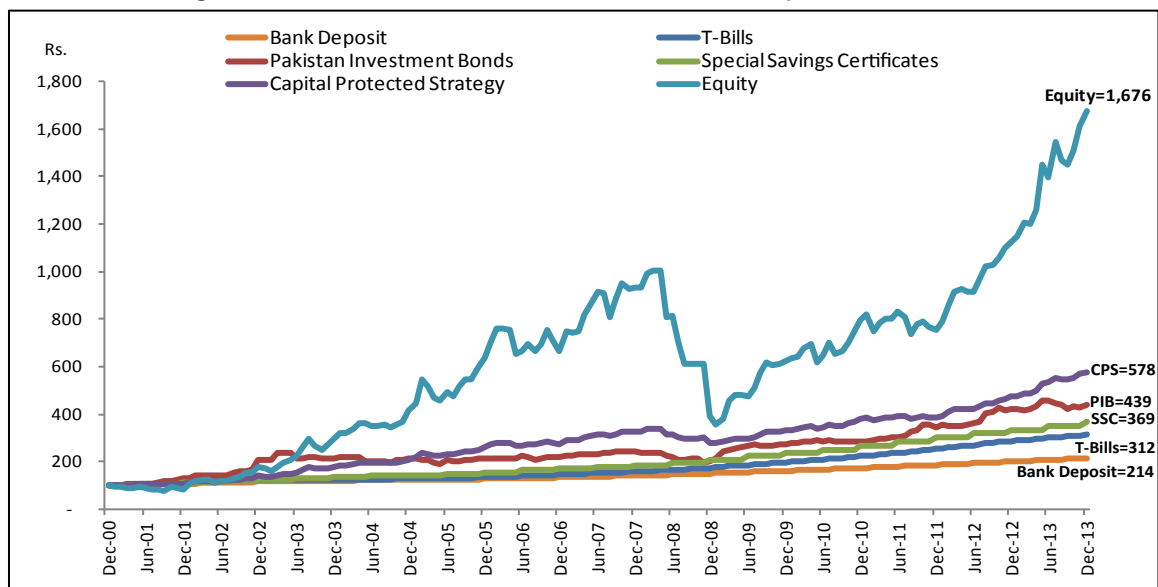
Asset class	Bank Deposit	T-bill	Special Savings Certificates (SSC)	Pakistan Investment Bonds (PIB)	Capital Protected Strategy (CPS)	Equity
Nominal annualized return	6.01%	9.20%	10.60%	12.00%	14.50%	24.20%
Inflation	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Real return (adjusted for inflation)	-2.74%	0.20%	1.50%	2.80%	5.00%	14.00%
Annualized Standard Deviation (Risk)	0.50%	1.40%	6.80%	13.20%	8.70%	27.60%
Sharpe Ratio*	N/A**	N/A	0.21	0.22	0.67	0.55
Future Value of Rs. 100 at the end of 13 years - Nominal value	214	312	369	439	578	1676
Future Value of Rs. 100 at the end of 13 years - Real value	70	102	121	144	189	549

\*Sharpe Ratio = Excess return per unit of risk = (Expected return – Risk free rate)/(Standard deviation)

\*\*Due to negative excess return, standard sharpe ratio has not been mentioned.

Source: SBP Statistical Bulletin, KSE, NSS website, NAFA Research

Fig 1 Future Value of Rs. 100 at the end of 13 years – Nominal



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