NBP Fullerton Asset Management Ltd.
A Subsidiary of National Bank of Pakistan

Dr. Amjad Waheed, CFA
Chief Executive Officer

Historical Performance of Key Investment Avenues

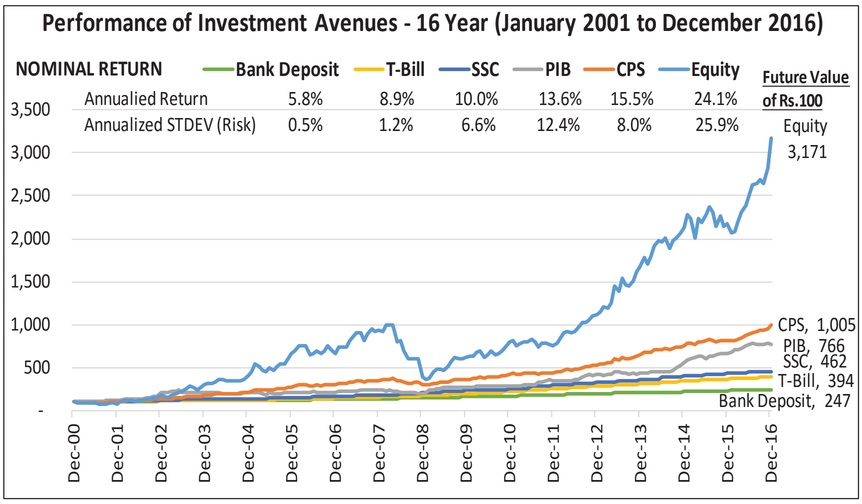
History provides useful insights on future probable outcomes, and guidance for optimal asset allocation, depending upon the risk profile of investors. Recognizing this significance, we have examined the past performance of key domestic asset classes for a 16-year period from January 2001 to December 2016. We have included six categories for which long-term data is available: Treasury Bills, Bank Deposits, National Savings Schemes (NSS), Pakistan Investment Bonds (PIBs), CPS, and Equities. Under the Capital Protected Strategy (CPS), portfolio is dynamically managed between the low risk and high risk components with the aim of capital preservation, while also capturing some upside of the stock market. However, the results from the CPS are based on back-testing and not actual results as this strategy was not in practice during the entire period. The headline inflation (CPI) has averaged 8.0% per annum, and Pak Rupee has depreciated against USD by 3.7% per year, in the last 16 year.

The historical analysis, as given in the Table below, depicts that equities offered the best nominal and real return among all asset classes in our study. An investment of PKR 100 in equities in 2001 would be worth PKR 3,171 by the end of 2016. During the same period, PKR 100 investment in bank deposits or T-bills would have increased to a paltry PKR 247 and PKR 394, respectively.

Asset class	Bank Deposit	T-bill	Special Savings Certificates (SSC)	Pakistan Investment Bonds (PIB)	Capital Protected Strategy (CPS)	Equity
Nominal annualized return	5.8%	8.9%	10.0%	13.6%	15.5%	24.1%
Inflation	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Real return (adjusted for inflation)	-2.0%	0.9%	1.9%	5.2%	7.0%	15.0%
Annualized Standard Deviation (Risk)	0.5%	1.2%	6.6%	12.4%	8.0%	25.9%
Sharpe Ratio*	N/A**	N/A	0.17	0.37	0.82	0.58
Future Value of Rs.100 at the end of 16 years - Nominal value	247	394	462	766	1,005	3,171
Future Value of Rs.100 at the end of 16 years - Real value	72	116	136	225	295	930

**Sharpe Ratio = Excess return per unit of risk = (Expected return – Risk free rate)/(Standard deviation), we have used 6M T-bill as a proxy for risk free rate*
***Due to negative excess return, standard Sharpe ratio is meaningless*
Source: SBP Statistical Bulletin, PSX, NSS website, NAFA Research

Value of Rs. 100 at the end of 16 years – Nominal



The outcome of the analysis supports the basic notion that there is a positive relationship between risk and return, meaning higher the risk higher the return. As expected, equities exhibited the highest volatility, and bank deposits and T-bills have the lowest risk. Our analysis shows that over a long investment horizon, equities offer the highest return. However, Capital Protected Strategy (CPS) offered the best risk-adjusted return as measured by the Sharpe Ratio during the 16-year period. More specifically, CPS delivered an attractive nominal return of about 15.5% per annum with a relatively low risk level as measured by the standard deviation of 8.0%.

One lesson from this analysis is that investors with long-term goals like educating their children, building a house or saving for retirement should have some of their assets invested in equities, through stock market / equity funds while, investors with low risk appetite based on short investment horizon should investment in bank deposit, T-bills, and money market / income funds.