

CHAPTER 6

Analysis of Balance Funds

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6.1 Analysis of Balance Funds

This chapter is based on the analysis of balance funds and impact of balance funds on Indian capital market. Balance funds are an innovative instrument having features of equity and debt funds. The purposes of balance funds are providing regular income to investor as well as capital appreciation. The managers of balance funds are responsible to allocate the pool of fund in equity and debt instrument in order to maximize the return and maximize the capital gain as well. Eight balance schemes are selected for the study.

This chapter highlights the impact of balance funds on Indian capital market. Regression analysis used to show the impact of balance funds' NAV (independent variable) on capital market index BSE- SENSEX and NSE-NIFTY (dependent variable). Balance funds' NAV (independent variable) data collected from specific mutual fund websites on daily basis from 1 January 2010 to 31 January 2016 and again converted on monthly basis, and then monthly NAV of each balance scheme converted in funds return by using the formula: $R_p = ((NAV_t - NAV_{t-1}) / NAV_{t-1}) \times 100$.

Capital market index BSE- SENSEX and NSE-NIFTY (dependent variable) data collected from respective website on monthly basis from January 2010 to January 2016 and selected closing index of each month of both market separately and then converted in market return separately by using the formula: $R_m = ((Index_t - Index_{t-1}) / Index_{t-1}) \times 100$.

Analysis of the data to know the impact of balance funds on capital market done by regression analysis, variance analysis by ANOVA, relation and strength in variables

calculated by part correlation (sr) analysis and test of significance of impact calculated by t-test with the help of SPSS.

6.2 Result of Balance Funds with NSE

The result of an SPSS regression analysis to see the impact on NIFTY from all eight predictor variables are shown in Table.6.2.1 to Table.6.2.3 and Figure.6.2.1. The tables provide fairly complete information including correlation among the all predictor and outcome variable; mean and standard deviation for each variable involved in analysis, information about overall fit of the regression model (multiple R and R – Square and associated F-test) the b coefficient for the raw score regression equation and a squared part correlation (sr^2) for each predictor that represent the proportion of variance in the Y outcome variable.

Table.6.2.1 Descriptive Statistics

Descriptive Statistics

Variables (Funds)	Mean	Standard Deviation
NSE-NIFTY	0.7217	4.78079
DSPBR Balanced Fund	0.9006	3.71554
UTI Balance Fund	0.8094	3.51148
Franklin India Balance Fund	1.0503	3.29096
HDFC Balanced Fund	1.2214	3.46518
HDFC Prudence Fund	1.0826	4.34475
SBI Magnum Balanced Fund	1.0322	3.49423
BIRLA Balance Fund	1.0797	3.36249
Tata Balanced Fund	1.1917	3.45767

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Table.6.2.2 Model Summary

Model Summary^b

Model	Sum of Squares	R	R Square	Adjusted R Square	F	Sig.
Regression	1518.966	.967 ^a	0.936	0.928	115.233	.000 ^a
Residual	103.806					

b. Dependent Variable: NSE- NIFTY

a. Predictors: (Constant), Tata Balanced Fund, HDFC Prudence Fund, SBI Magnum Balanced Fund, DSPBR Balanced Fund, Franklin India Balance Fund, HDFC Balanced Fund, UTI Balance FUND, BIRLA Balance Fund.

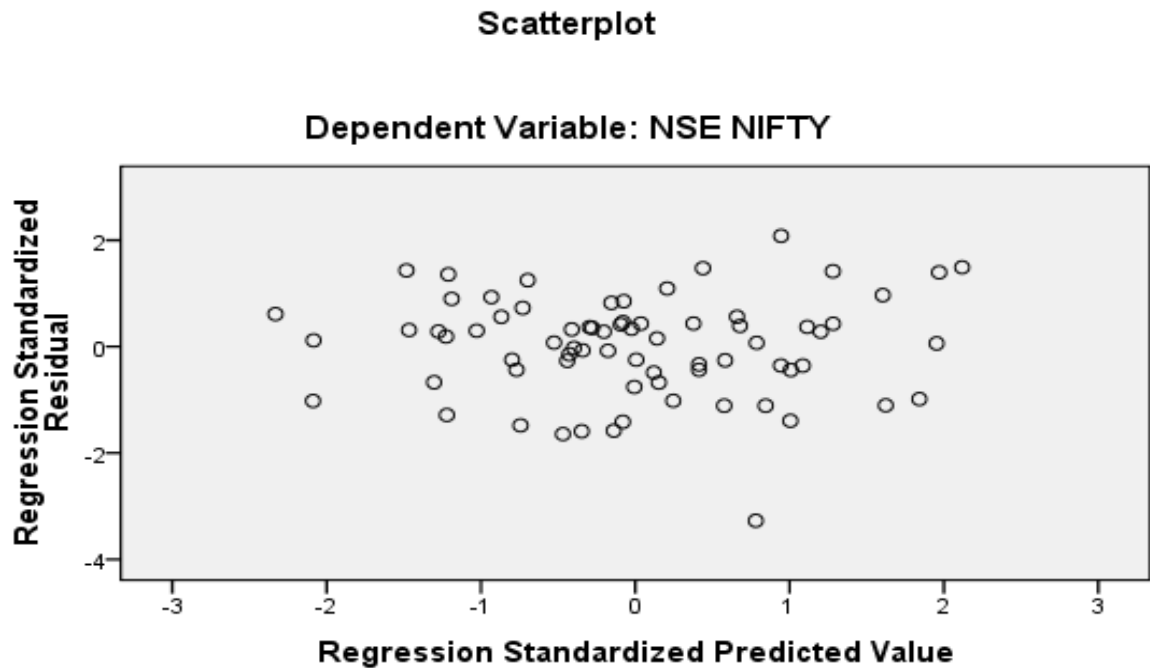
Table.6.2.3 Coefficients

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations Part
	B	Std. Error	Beta			
1 (Constant)	-0.424	0.184		-2.306	0.024	
DSPBR Balanced Fund	-0.241	0.183	-0.187	-1.319	0.192	-0.042
UTI Balance Fund	1.347	0.202	0.989	6.665	0	0.212
Franklin India Balance Fund	0.856	0.201	0.589	4.268	0	0.136
HDFC Balanced Fund	-0.084	0.196	-0.061	-0.427	0.671	-0.014
HDFC Prudence Fund	-0.24	0.146	-0.218	-1.652	0.103	-0.053
SBI Magnum Balanced Fund	-0.095	0.149	-0.069	-0.636	0.527	-0.02
BIRLA Balance Fund	0.175	0.22	0.123	0.798	0.428	0.025
Tata Balanced Fund	-0.299	0.199	-0.216	-1.501	0.138	-0.048

a. Dependent Variable: NSE -NIFTY

Figure 6.2.1 Output from SPSS Linear Regression to Predict NIFTY from predictor variables.



An SPSS regression analysis for a sample of $n=72$ show overall multiple regression of impact on NIFTY from all eight predictor variable in table 6.2.2. $R=0.967$ show a very high correlation between all balance funds with NIFTY and positive high correlation show return from all balance funds and return from NSE move in same direction it indicate increasing in balance funds return an increase in NSE return, $R^2=0.94$ represent 95% variance in NIFTY could be predicted, adjusted $R^2=0.93$ also statistically significant, table.6.2.2. ANOVA panel show F-Ratio: $F(8, 63) = 115.233$, $p < 0.001$ show over all multiple regression model is statistically significant it means balance funds have impact on capital market.

Analysis of Balance Funds

First table.6.2.1 of analysis is descriptive statistics which show mean return of all eight balance funds the mean return of all balance funds are high in relation of NIFTY mean return =0.72. HDFC Balanced Fund with highest return=1.22, Tata Balanced Fund with second highest mean return=1.19 and UTI Balance Fund with lowest mean return=0.81. It shows the investment in balance funds are better which yield high average return in compare to NIFTY average return. Risk associated with Balance funds and NIFTY explain by Standard Deviation, descriptive statistic panel show all balance funds Standard Deviation are low with NIFTY Standard Deviation=4.78 that explain investment in balance fund are less risky and more consistent than NIFTY return. Within all balance funds analysis Franklin India Balance fund has less risk with Standard Deviation=3.29 and HDFC Prudence Fund show high risk with Standard Deviation=4.34.

The last table 6.2.3 shows coefficients for both raw score and the standard score version of regression equation. The raw labeled constant provide the estimated value of b_0 , the intercept ($b_0 = -0.424$) and a t-test to evaluate whether this differed significantly from 0. The intercept b_0 is significant different from 0; $t(72) = -2.306$; $p = 0.024$. Only two balance funds out of eight balance funds are statistically significant one is UTI Balance Fund with b value=1.347; $t(72) = 6.665$, $p < 0.001$ representing 135% increase in return in NIFTY for a 100% increase in UTI Balance Fund return and its $sr = 0.212$ ($sr^2 = 0.0449$) about 4.5% of variance in NIFTY uniquely predicated from UTI Balance Fund and second Franklin India Balance fund with b value=0.856; $t(72) = 4.286$, $p < .001$ representing 85.6% increase in return in NIFTY for 100% increase in Franklin India Balance fund return and its $sr = 0.136$ ($sr^2 = 0.0184$) about 2% of variance in NIFTY uniquely predicated from Franklin

India Balance fund. The other six predictor variables are less significant related to NIFTY.

The predictive regression equation $\gamma = \alpha + \beta x$ is as follows:

Where: γ = NSE-NIFTY (Dependent Variable)

α = Alpha

β = Beta

x = Balance Funds (Independent variable)

$\text{NIFTY} = -0.424 + 1.347 \times \text{UTI Balance Fund} + 0.856 \times \text{Franklin India Balance Fund}$

The standardized residual requested as part of the regression analysis appears in figure 6.2.1. When the assumption of regression are satisfied by the data, the point in thus plot should appear with in a fairly uniform bond from left to right and most standardized residuals should be between -3 to +3. The graph shows that the assumption for regression appear to be reasonably well satisfied.

6.3 Result of Balance Funds with BSE

The result of an SPSS regression analysis to see the impact on SENSEX from all eight predictor variables are shown in Table.6.3.1 to Table.6.3.3 and Figure.6.3.1. The tables provide fairly complete information including correlation among the all predictor and outcome variable; mean and standard deviation for each variable involved in analysis ,information about overall fit of the regression model (multiple R and R – Square and associated F- test)the b coefficient for the raw score regression equation and a squared part correlation (sr^2) for each predictor that represent the proportion of variance in the Y outcome variable.

Table.6.3.1 Descriptive Statistics

Descriptive Statistics

Variables (Funds)	Mean	Standard Deviation
BSE-SENSEX	0.7541	4.58609
DSPBR Balanced Fund	0.9006	3.71554
UTI Balance Fund	0.8094	3.51148
Franklin India Balance Fund	1.0503	3.29096
HDFC Balanced Fund	1.2214	3.46518
HDFC Prudence Fund	1.0826	4.34475
SBI Magnum Balanced Fund	1.0322	3.49423
BIRLA Balance Fund	1.0797	3.36249
Tata Balanced Fund	1.1917	3.45767

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Table.6.3.2 Model Summary

Model Summary^b

Model	Sum of Squares	R	R Square	Adjusted R Square	F	Sig.
Regression	1343.705	.949 ^a	0.9	0.887	70.742	.000 ^a
Residual	149.58					

b. Dependent Variable: BSE-SENSEX

a. Predictors: (Constant), Tata Balanced Fund, HDFC Prudence Fund, SBI Magnum Balanced Fund, DSPBR Balanced Fund, Franklin India Balance Fund, HDFC Balanced Fund, UTI Balance FUND, BIRLA Balance Fund

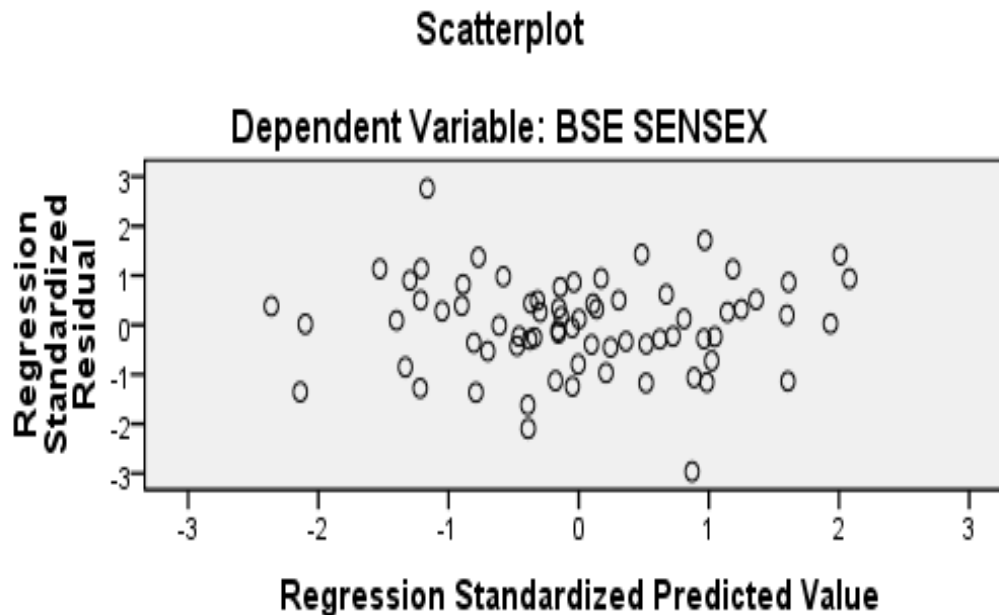
Table.6.3.3 Coefficients

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations Part
	B	Std. Error	Beta			
1 (Constant)	-0.344	0.221		-1.557	0.124	
DSPBR Balanced Fund	-0.274	0.22	-0.222	-1.248	0.217	-0.05
UTI Balance Fund	1.368	0.243	1.048	5.642	0	0.225
Franklin India Balance Fund	0.882	0.241	0.633	3.661	0.001	0.146
HDFC Balanced Fund	0.011	0.235	0.008	0.047	0.963	0.002
HDFC Prudence Fund	-0.426	0.175	-0.404	-2.441	0.017	-0.097
SBI Magnum Balanced Fund	-0.082	0.179	-0.063	-0.461	0.646	-0.018
BIRLA Balance Fund	0.305	0.264	0.223	1.155	0.252	0.046
Tata Balanced Fund	-0.407	0.239	-0.307	-1.703	0.094	-0.068

a. Dependent Variable: BSE-SENSEX

Figure 6.3.1 Output from SPSS Linear Regression to Predict SENSEX from predictor variables



An SPSS regression analysis for a sample of $n=72$ participant show overall multiple regression of impact on SENSEX from all eight predictor variable in table.6.3.2, $R=0.949$ show a very high correlation between all balance funds with SENSEX and positive high correlation show return from all balance funds and return from BSE move in same direction it indicate increasing in balance funds return and increase in BSE return, $R^2=0.90$ represent 90% variance in SENSEX could be predicted, adjusted $R^2=0.887$ also statistically significant, table.6.3.2 ANOVA panel show F- Ratio: $F(8,63)=70.742$, $p<.001$ show over all multiple regression model is statistically significant it means balance funds have impact on capital market.

Analysis of Balance Funds

First table.6.3.1 of analysis is Descriptive Statistics which show mean return of all eight balance funds the mean return of all balance funds are high in relation of SENSEX mean return =0.75. HDFC Balanced Fund with highest mean return=1.22, Tata Balanced Fund with second highest mean return=1.19 and UTI Balance Fund with lowest mean return=0.81. It shows the investment in balance funds are better which yield high average return in compare to SENSEX average return .Risk associated with balance funds and SENSEX explain by Standard Deviation, descriptive statistic panel show all balance funds Standard Deviation are low with SENSEX Standard Deviation=4.78 that explain investment in balance fund are less risky and more consistent than SENSEX return. Within all balance funds analysis Franklin India Balance fund has less risk with Standard Deviation=3.29 and HDFC Prudence Fund show high risk with Standard Deviation=4.34.

The last table 6.3.3 shows coefficients for both raw score and the standard score version of regression equation. The raw labeled constant provide the estimated value of b_0 , the intercept $b_0 = (-0.344)$ and a t-test to evaluate whether this differed significantly from 0. The intercept b_0 is significant different from 0; $t(72) = -1.557$; $p = 0.124$. Only two balance funds out of eight balance funds are statistically significant one is UTI Balance Fund with b value=1.368; $t(72) = 5.642$, $p < 0.001$ representing 136.8% increase in return in SENSEX for a 100% increase in UTI Balance Fund return and its $sr = 0.225$ ($sr^2 = 0.0449$) about 5% of variance in SENSEX uniquely predicated from UTI Balance Fund and second Franklin India Balance fund with b value=0.882; $t(72) = 3.661$, $p = 0.001$ representing 88.2% increase in return in SENSEX for 100% increase in Franklin India Balance fund return and its $sr = .146$ ($sr^2 = 0.0213$) about 2% of variance in SENSEX uniquely predicated from

Franklin India Balance fund. The other six predictor variables are not significantly related to SENSEX.

The predictive regression equation $\gamma = \alpha + \beta x$ is as follows:

Where:

γ = BSE-SENSEX (Dependent Variable)

α = Alpha

β = Beta

x = Balance Funds (Independent variable)

$\text{SENSEX} = -0.344 + 1.368 \times \text{UTI Balance Fund} + .882 \times \text{Franklin India Balance Fund}$

The standardized residual requested as part of the regression analysis appears in figure 6.3.1. When the assumption of regression are satisfied by the data, the point in this plot should appear within a fairly uniform band from left to right and most standardized residuals should be between -3 to +3. The graph shows that the assumption for regression appear to be reasonably well satisfied.

Summary

Analysis of balance funds and NSE show mean return of all eight balance funds that are high in relation of NIFTY mean return = .72. HDFC Balanced Fund with highest return = 1.22, Tata Balanced Fund with second highest mean return = 1.19 and UTI Balance fund with lowest mean return = .81. It shows the investments in balance funds are better which yield high average return in compare to NIFTY average return. Risk associated with balance funds and NIFTY explain by Standard Deviation, descriptive statistic panel

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show all balance funds Standard Deviation are low with NIFTY Standard Deviation=4.78 that explain investment in balance fund are less risky and more consistent than NIFTY return. Within all balance funds analysis Franklin India Balance fund has less risk with Std. Deviation=3.29 and HDFC Prudence Fund show high risk with Standard Deviation=4.34.

Analysis of balance funds and BSE show mean return of all eight balance funds are high in relation to SENSEX mean return =.75. HDFC Balanced Fund with highest mean return=1.22, Tata Balanced Fund with second highest mean return=1.19 and UTI Balance Fund with lowest mean return=.81. It shows the investment in balance funds are better which yield high average return in compare to SENSEX average return .Risk associated with balance funds and SENSEX explain by Standard Deviation, descriptive statistic panel show all balance funds Standard Deviation are low with SENSEX Standard Deviation=4.78 that explain investment in balance fund are less risky and more consistent than SENSEX return. Within all balance funds analysis Franklin India Balance fund has less risk with Std. Deviation=3.29 and HDFC Prudence Fund show high risk with Standard Deviation=4.34.The analysis of the chapter helps to achieve forth objective of the research and result of the study rejects the null hypothesis number two.