A Comparative Study and Analysis of Risk and Return of Debt Mutual Fund and Bank Deposit

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Abstract: *The study uses a variety of financial measures and statistical tools to assess the choices' performance over a predetermined time frame. The results of this study will help investors make wise decisions about their investment portfolios. In order to fully compare and analyze the risk and return attached to two popular investment options—debt mutual funds and bank deposits—this research study attempts to give a thorough comparison. Investors seeking security and income generating frequently turn to these investing options.*

Keywords: *Debt Mutual Fund, Risk Analysis, Return Analysis, Risk- Return Trade off*

Introduction

Financial services encompass the economic services provided by the finance industry, which includes a variety of businesses such as credit unions, banks, insurance companies, stock brokerages, and investment funds. In India, mutual funds are a significant component of the financial services sector. They offer a diverse array of investment products to retail investors who seek professional management and low-cost index funds. The mutual fund industry in India began in 1963 with the establishment of UTI by an act of parliament and was initially regulated and administrated by the Reserve Bank of India. Banks are institutions that help individuals manage, store, and utilize their money. Customers can open accounts at banks to save or invest their money for a variety of purposes. Investment is one of the foremost essential a part of a person's life in today's time. Investing requires time knowledge and constant monitoring of the market. For those that don't have much knowledge of the various sorts of investment options, Fixed Deposits, and open-end funds become an option. Fixed Deposit provides low returns compared to other investments options available within the market. At an equivalent time, mutual funds provide comparatively a better rate of return and possess a high risk Therefore, before investing in any of them one should have proper knowledge about an equivalent.

Objectives of the Study

- To study and analyze the risk and return of selected schemes of debt mutual funds and bank deposits.

- To compare the performance of selected schemes of debt mutual funds and bank deposits.

Literature Review

In the paper, Ms. Arya S Babu, Dr. Jahnavi M, Namita P Konnur, Dr. B. Percy Bose states that if we thoroughly evaluate the performance before investing, we can be sure that it will produce significant returns with minimal initial expenditure. Since everyone is aware that investments in these schemes are exposed to market risk, most investors stay clear of them because of the dangers involved. The paper states that one should choose to invest in the ICICI Prudential Low Duration Fund because it has beaten all other schemes in the study. (Ms. Arya S Babu, 2021)

In another paper, Subham Gupta has compared the average returns of the top 5 mid cap equities mutual fund schemes. In this study, a variety of measurements are taken to clearly understand the risk associated with the designs that were chosen. The analysis also makes it clear how well the schemes perform when their risk is taken into account, which can help investors select the best options. (Gupta, 2022)

In the research paper by Bhadrappa Haralayya, the risks and returns of about five particular mutual funds in the banking sector are compared. In the analysis, the top five performing banking funds are mostly taken into account, such as funds from Reliance Banking, ICICI, Birla Sun Life, Sundaram Financial Services, and UTI. The study is based on each mutual fund's NAV and return. The study does not take into account any additional AMC performance measures. It considers the benchmark value and yearly opening NAVs (Haralayya, 2022)

In the paper Hassan Qamar and Sanjay Singh, effectiveness and efficiency of mutual funds are analyzed using a non-parametric approach in this study. When determining their efficiency level of funds using DEA, factors including mutual fund returns, turnovers, volatility, and expense ratio are taken into account. The end product not only offers investments with good returns, but these investments are also stable and perform consistently. Applying the concept to a group of 46 Indian equities funds from 2006 to 2015 is the methodology. Three, five, and ten years are allotted for this analyses' implementation, correspondingly. The comparison with the Value Research and Crisil and rating systems is the basis for the results. They state that their findings of investors a useful tool to select the top fund out of all the available options. Additionally, it aids fund managers in more effective money management. (Hassan Qamar)

This study by Dibin K. K. and Alfia Thaha, compares the stock market index with the mutual fund market, in an empirical examination of the two investment options available to investors. This study is pertinent in the current environment because the recent policy rate drop shows that the RBI has adopted an accommodative stance. The interest rates that banks give on deposits reflect this. The publication claims that the customer's actual return on a bank deposit is only 3.22%, which has given other investing options a boost. By analyzing the mutual funds and stocks over a ten-year period for risk and return (FY2007-FY2017), the study aims to identify the optimum investment alternative. Based on market capitalization, the top10businessesfrom the SENSEX are chosen, and they are compared to the top two companies from each of five distinct mutual fund schemes, according to CRISIL ratings. The findings will aid investors in better understanding investment decision-making. (Alfia thaha, 2017)

The study by Dr.Joy Dasand and Dr.Parag Shil, examines how well public commercial banks perform in terms of the conversion of their deposits held to assets under management for their mutual fund operations. To arrive at the result, the data acquired in this way was examined using conversion efficiency, correlation coefficient, and panel data analysis. According to the survey, private banks out performed public sector commercial banks in terms of converting deposits into assets managed by the mutual fund businesses. (Joy Das, 2018)

The research has shown that ELSS and the Nifty 50 Index have different risk-return profiles and can provide different outcomes for investors depending on their investment goals and risk tolerance. While ELSS offers tax benefits, the Nifty 50 Index provides a broader representation of the Indian stock market(Patel et al., 2024).

Data Analysis & Interpretation

Tools and techniques used for data analysis

- Microsoft excel
- **Net Asset Value(NAV)**
- Net asset value is a representation of the market value per share for a particular mutual fund. After subtracting the liabilities, the computation involves dividing the total asset value by the number of shares. The price of each fund unit is calculated by adding up the market value of a portfolio and dividing it by the total number of current fund units.
- **Rate of Return**

It refers to the profit or gain generated by the fund's investments over a specified period of time.

Rate of return = [(Current value-Initial value)/ Initial value*100]

- **Variance = Ó(R-R1)²/N-1**
- **Standard deviation**

This was used to calculate the risk of selected debt mutual fund and also market risk.

- **Standard deviation = √variance**
- **Covariance**

The direction of the relationship between the returns on two assets is measured by covariance. It is a statistical tool for figuring out how the movements of two random variables relate to one another. If the value of mutual fund and market value are positive then both are moving in upward direction, and vice versa for negative. If one is negative and another is positive then both are moving in different direction.

- **Covariance =Ó(R-R1)*(Rm-Rm1)/N-1**
- **Beta**

The mutual fund's sensitivity to changes in the market is shown by the beta**.**

Beta = Covariance/variance

Table 1: Nippon India Money Market Fund

Year	NAV	Return(R)	(R-R1)	$(R-R1)^2$	Market	Rm	(Rm-Rm1)	$(Rm-Rm1)^2$	(R-R1) (Rm-Rm1)
2016	2335.56				26626.5				
2017	2495.46	6.84601	0.43418	0.18851	34056.8	27.906	12.8436	164.958	12.1163
2018	2658.21	6.52179	0.10996	0.01209	36068.3	5.9063	-9.156	83.8332	0.64947
2019	2896.91	8.9798	2.56797	6.59447	41253.7	14.3766	-0.6857	0.47021	36.9187
2020	3108.73	7.31204	0.90021	0.81038	47751.3	15.7503	0.68795	0.47328	14.1786
2021	3252.2	4.61497	-1.7969	3.2287	58253.8	21.9941	6.93178	48.0496	-39.52
2022	3388.67	4.19636	-2.2155	4.90829	60840.7	4.44077	-10.622	112.818	-9.8384
	Total Return	38.471		15.7424		90.3741		410.603	
	Avg. Return(R1/Rm1)	6.41183				15.0624			
	Variance			2.62374				68.4338	
	SD			1.6198				8.27247	
									14.5044

Interpretation

The Nippon India Money Market Fund exhibited consistent NAV growth from 2335.56 in 2016 to 3388.67 in 2022, with annual returns fluctuating between 4.19636% and 8.9798%. Concurrently, the market index surged from 26626.5 to 60840.7, reflecting significant but volatile growth. The fund's average annual return was 6.41183%, lower than the market's 15.0624%, but its returns demonstrated lower variance and standard deviation, indicating less volatility. The positive covariance 14.5044 between the fund and market returns suggests a positive correlation, implying the fund generally trends with the market. Overall, the fund's stable returns amidst market fluctuations highlight its potential as a reliable investment within the money market sector.

Table No.2: Calculation of risk and return of Nippon India money Market fund and market

Variance	=	**$\Sigma(R-R1)^2/N-1$** 15.74244/7-1 15.74244/6 2.62374
SD	=	**√variance** √2.62374 1.619796
Market Variance	=	**$\Sigma(Rm-Rm1)^2/N-1$** 410.60254/7-1 410.60254/6 68.43376
SD of market	=	**√market variance** √68.43376 8.27247
Covariance	=	**$\Sigma(R-R1)*(Rm-Rm1)/N-1$** 14.50437629/7-1 14.50437629/6 2.417396048
Beta	=	**Covariance/variance** 2.417396/68.43375622 0.035324614

Interpretation

The calculations determine the risk and market relationship of an asset. The asset's variance is 2.62374, with a standard deviation of 1.619796, indicating its return variability. The market's variance is much higher at 68.43376, with a standard deviation of 8.27247, showing more spread out returns. The covariance between the asset and market returns is 2.417396048, resulting in a beta of 0.03532. This low beta suggests the asset has very low sensitivity to market movements, indicating minimal influence from market changes.

Table 3: SBI Dynamic Bond Direct Plan Growth

Year	NAV	Return(R)	(R-R1)	$(R-R1)^2$	Market	Rm	(Rm-Rm1)	$(Rm-Rm1)^2$	(R-R1) (Rm-Rm1)
2016	19.4571	-	-	-	26626.5	-	-	-	-
2017	21.6473	11.2568	3.35721	11.2708	34056.8	27.906	12.8436	164.958	93.6861
2018	22.2544	2.80455	-5.095	25.9592	36068.3	5.9063	-9.156	83.8332	-30.093
2019	24.8138	11.5005	3.60097	12.967	41253.7	14.3766	-0.6857	0.47021	51.7698
2020	28.1021	13.2517	5.35208	28.6448	47751.3	15.7503	0.68795	0.47328	84.2969
2021	29.5667	5.21173	-2.6878	7.2245	58253.8	21.9941	6.93178	48.0496	-59.117
2022	30.5637	3.37217	-4.5274	20.4973	60840.7	4.44077	-10.622	112.818	-20.105
	Total Return	47.3974		106.564					
	Avg. Return(R1/Rm1)	7.89957				90.3741		410.603	
	Variance			17.7606		15.0624			
	SD			4.21433				68.4338	
								8.27247	
									120.438

Interpretation

The table displays the performance of the SBI Dynamic Bond Direct Plan Growth over several years. The asset's returns (R) vary annually, resulting in a total return of 47.3974 and an average return of 7.89957. The variance of the asset's returns is 17.7606, with a standard deviation of 4.21433, reflecting the variability in returns. The market returns (Rm) also show variability, with a total return of 90.3741 and an average return of 90.3741. The market's variance is significantly higher at 68.4338, with a standard deviation of 8.27247, indicating more substantial

fluctuations. The covariance between the asset and market returns is 120.438, highlighting how the asset's returns move in relation to the market. This data suggests that while the asset has experienced moderate variability in returns, it exhibits a relationship with the broader market's movements.

Table No.4: Calculation of Risk and Return of SBI dynamic bond direct plan growth and market

Variance =	**$\Sigma(R-R1)^2/N-1$** 106.5637/7-1 1106.5637/6 117.76061667
SD =	**√ variance** √ 17.76062 4.21433466
Market Variance =	**$\Sigma(Rm-Rm1)^2/N-1$** 410.60254/7-1 410.60254/6 68.43376
SD of market =	**√ market variance** √ 68.43376 8.27247
Covariance =	**$\Sigma(R-R1)*(Rm-Rm1)/N-1$** 120.438201/7-1 120.438201/6 20.07303351
Beta =	**Covariance/market variance** 20.07303351/68.43375622 0.293320645

Interpretation

The calculations in Table 4 reveal the risk and return characteristics of the SBI Dynamic Bond Direct Plan Growth and its relationship with the market. The asset's variance is 17.76062, with a standard deviation of 4.21433, indicating the degree of fluctuation in its returns. The market's variance is significantly higher at 68.43376, with a standard deviation of 8.27247, reflecting greater volatility. The covariance between the asset's returns and the market returns is 20.07303. The beta value, calculated as the covariance divided by the market variance, is 0.29332. This beta indicates that the asset is less sensitive to market movements, suggesting it is a relatively lower-risk investment compared to the market.

Table 5: HDFC Money Market Fund

Year	NAV	Return(R)	(R-R1)	$(R-R1)^2$	Market	Rm	(Rm-Rm1)	$(Rm-Rm1)^2$	(R-R1) (Rm-Rm1)
2016	3225.01				26626.5				
2017	3432.81	6.44323	-0.0603	0.00364	34056.8	27.906	12.8436	164.958	-1.6832
2018	3657.03	6.53162	0.02807	0.00079	36068.3	5.9063	-9.1561	83.8332	0.16581
2019	3962.25	8.34629	1.84274	3.3957	41253.7	14.3766	-0.6857	0.47021	26.4924
2020	4261.72	7.55793	1.05438	1.11171	47751.3	15.7503	0.68795	0.47328	16.6068
2021	4461.98	4.69912	-1.8044	3.25597	58253.8	21.9941	6.93178	48.0496	-39.687
2022	4704.85	5.4431	-1.0605	1.12455	60840.7	4.44077	-10.622	112.818	-4.7092
	Total Return	39.0213		8.89236		90.3741		410.603	
	Avg. Return(R1/Rm1)	6.50355				15.0624			
	Variance			1.48206				68.4338	
	SD			1.2174				8.27247	
									-2.8143

Interpretation

The data for the HDFC Money Market Fund reveals its performance and relationship with market returns. The fund's total return over the period is 39.0213, with an average annual return of 6.50355. The variance of the fund's returns is 1.48206, indicating relatively low volatility, and the standard deviation is 1.2174, further reflecting its stability. In contrast, the market's variance is much higher at 68.4338, with a standard deviation of 8.27247, showing significant fluctuations. The negative covariance of -2.8143 suggests that the fund's returns have a slightly inverse relationship with market returns, indicating that the HDFC Money Market Fund may act as a buffer against market volatility.

Table No.6: Calculation of risk and return of HDFC money Market fund and market

Variance =	**$\Sigma(R-R1)^2/N-1$** 8.892362/7-1 8.892362/6 1.48206
SD =	**√variance** √1.48206 1.2174
Market Variance =	**$\Sigma(Rm-Rm1)^2/N-1$** 410.60254/7-1 410.60254/6 68.43376
SD of market =	**√market variance** √68.43376 8.27247
Covariance =	**$\Sigma(R-R1)*(Rm-Rm1)/N-1$** -2.814277905/7-1 -2.814277905/6 -0.46905
Beta =	**Covariance/variance** -0.46905/68.43375622 -0.00685

Interpretation

The calculations in Table 6 highlight the risk and return profile of the HDFC Money Market Fund in comparison to the market. The fund's variance is 1.48206, with a standard deviation of 1.2174, indicating low volatility and stable returns. The market's variance is significantly higher at 68.43376, with a standard deviation of 8.27247, reflecting greater volatility. The covariance between the fund's returns and the market's returns is -0.46905, suggesting a slight inverse relationship. The beta value of -0.00685 indicates that the fund's returns are almost entirely uncorrelated with market movements, underscoring its potential as a low-risk investment that can provide stability in a volatile market environment.

Table 7: Axis banking and PSU debt fund

Year	NAV	Return(R)	(R-R1)	$(R-R1)^2$	Market	Rm	(Rm-Rm1)	$(Rm-Rm1)^2$	(R-R1) (Rm-Rm1)
2016	1427.58				26626.5				
2017	1537.6	7.70654	0.17884	0.03198	34056.8	27.906	12.8436	164.958	4.99055
2018	1638.45	6.559	-0.9687	0.93839	36068.3	5.9063	-9.1561	83.8332	-5.7215
2019	1809.69	10.4517	2.92402	8.54987	41253.7	14.3766	-0.6857	0.47021	42.0375
2020	2001.59	10.6035	3.0758	9.46056	47751.3	15.7503	0.68795	0.47328	48.4448
2021	2124.45	6.13819	-1.3895	1.93076	58253.8	21.9941	6.93178	48.0496	-30.561
2022	2203.21	3.70727	-3.8204	14.5957	60840.7	4.44077	-10.622	112.818	-16.966
	Total Return	45.1662		35.5073					
	Avg. Return(R1/Rm1)	7.5277				90.3741		410.603	
	Variance			5.91788		15.0624			
	SD			2.43267				68.4338	
								8.27247	
									42.2245

Interpretation

The data for the Axis Banking and PSU Debt Fund provides an overview of its performance and relationship with the market. The fund's total return over the period is 45.1662, with an average annual return of 7.5277. The variance of the fund's returns is 5.91788, indicating moderate volatility, and the standard deviation is 2.43267, reflecting the extent of fluctuation in returns. The market's variance is much higher at 68.4338, with a standard deviation of 8.27247, indicating greater volatility. The covariance between the fund's returns and the market returns is 42.2245, suggesting a positive relationship. This data indicates that the Axis Banking and PSU Debt Fund exhibits moderate risk with a positive correlation to market movements, making it a suitable option for investors seeking returns aligned with market trends but with lower volatility.

Table No. 8: Calculation of risk and return of Axis banking and PSU debt fund and market

Variance =	**$\Sigma(R-R1)^2/N-1$** 33130679/7-1 33130679/6 5.917875
SD =	**√variance** √5.917875 2.432668
Market Variance =	**$\Sigma(Rm-Rm1)^2/N-1$** 410.60254/7-1 410.60254/6 68.43376
SD of market =	**√market variance** √68.43376 8.27247
Covariance =	**Σ(R-R1)*(Rm-Rm1)/N-1** 42.22449427/7-1 42.22449427/6 7.037416
Beta =	**Covariance/variance** 7.037416/68.43375622 0.102835

Interpretation

The calculations in Table 8 analyze the risk and return characteristics of the Axis Banking and PSU Debt Fund in comparison to the market. The fund's variance is 5.917875, with a standard deviation of 2.432668, indicating moderate volatility in its returns. In contrast, the market has a higher variance of 68.43376 and a standard deviation of 8.27247, reflecting greater variability. The covariance between the fund's returns and the market returns is 7.037416, suggesting a positive relationship where they move somewhat together. The calculated beta of 0.102835 indicates that the Axis Banking and PSU Debt Fund is relatively less volatile than the market, implying lower risk but also potentially lower returns compared to broader market movements. This data suggests the fund may offer a balanced approach for investors seeking stability with some exposure to market fluctuations.

Table 9: Kotak dynamic bond

Year	NAV	Return(R)	(R-R1)	$(R-R1)^2$	Market	Rm	(Rm-Rm1)	$(Rm-Rm1)^2$	(R-R1) (Rm-Rm1)
2016	20.1176				26626.5				
2017	22.1017	0.39915	-0.1057	0.01117	34056.8	27.906	12.8436	164.958	-2.9492
2018	23.2363	0.25077	-0.2541	0.06455	36068.3	5.9063	-9.1561	83.8332	-1.5006
2019	25.9625	0.63347	0.12863	0.01655	41253.7	14.3766	-0.6857	0.47021	1.84924
2020	29.0773	0.80869	0.30385	0.09232	47751.3	15.7503	0.68795	0.47328	4.7857
2021	31.1334	0.59785	0.09301	0.00865	58253.8	21.9941	6.93178	48.0496	2.04562
2022	32.2226	0.33911	-0.1657	0.02747	60840.7	4.44077	-10.622	112.818	-0.736
	Total Return	3.02904		0.22071		90.3741		410.603	
	Avg. Return(R1/Rm1)	0.50484				15.0624			
	Variance			0.03678				68.4338	
	SD			0.19179				8.27247	
									3.49474

Interpretation

The data from Table 9 provides insights into the performance and relationship of the Kotak Dynamic Bond Fund with the market. The fund shows a total return of 3.02904 over the period, with an average annual return of 0.50484. Its variance is calculated at 0.03678, indicating low volatility, and the standard deviation is 0.19179, highlighting minimal fluctuation in returns. In contrast, the market exhibits higher variance of 68.4338 and a standard deviation of 8.27247, indicating greater variability. The covariance between the fund's returns and the market returns is 3.49474, suggesting a positive relationship where they move somewhat in tandem. With a beta calculated at 0.05061, the Kotak Dynamic Bond Fund appears to offer lower risk compared to the market, making it potentially attractive for investors seeking stable returns with reduced exposure to market volatility.

Table No. 10: Calculation of risk and return of Kotak dynamic bond and market

Variance =	**$\Sigma(R-R1)^2/N-1$** 0.220706/7-1 0.220706/6 0.036784
SD =	**√variance** √0.036784 0.191792
Market Variance =	**$\Sigma(Rm-Rm1)^2/N-1$** 410.60254/7-1 410.60254/6 68.43376
SD of market =	**√market variance** √68.43376 8.27247
Covariance =	**$\Sigma(R-R1)*(Rm-Rm1)/N-1$** 3.494743932/7-1 3.494743932/6 0.582457
Beta =	**Covariance/variance** 0.582457/68.43375622 0.008511258

Interpretation

The calculations in Table 10 illustrate the risk and return characteristics of the Kotak Dynamic Bond Fund in comparison to the market. The fund's variance is 0.036784, with a corresponding standard deviation of 0.191792, indicating low volatility and stable returns. In contrast, the market exhibits a higher variance of 68.43376 and a standard deviation of 8.27247, reflecting greater variability in returns. The covariance between the fund's returns and the market returns is 0.582457, suggesting a positive relationship where they move somewhat together. With a beta value calculated at 0.008511, the Kotak Dynamic Bond Fund appears to be minimally correlated with market movements, indicating it offers low sensitivity to market fluctuations. This makes it potentially suitable for investors seeking relatively stable returns with reduced exposure to broader market risks.

Table 11: Returns of selected debt mutual funds

	SBI	NIPPON	HDFC	AXIS	KOTAK
Return	7.899	6.411	6.503	7.527	0.504

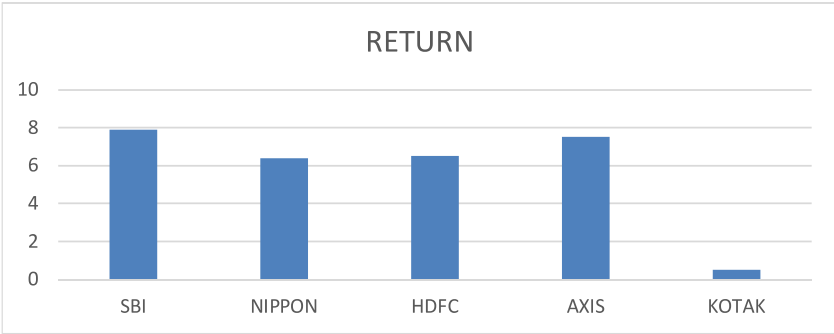

Figure 1: Returns of the selected debt mutual fund

Interpretation

The above table and chart represent the return of the SBI dynamic bond fund, Nippon India money market fund, HDFC money market fund, Axis banking and PSU debt fund and, Kotak dynamic bond fund. Here, the return of SBI dynamic bond fund is higher than that of other mutual fund returns. The return of the SBI mutual fund is 7.899% followed by Axis 7.527, HDFC 6.503, Nippon 6.411 and at last Kotak with the lowest return of 0.504. So one can think of investing in the SBI among these 5 debt mutual funds as it gives the greater return.

Table 12: Risk of selected Mutual Fund Scheme

	SBI	NIPPON	HDFC	AXIS	KOTAK
RISK	4.214	1.619	1.217	2.431	0.191

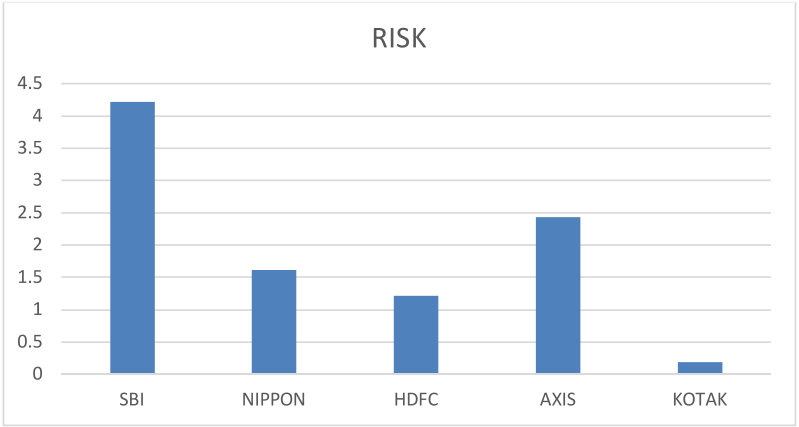

Figure 2: Risks of selected debt mutual funds

Interpretation

The above table and chart represent the risks of the SBI dynamic bond fund, Nippon India money market fund, HDFC money market fund, Axis banking and PSU debt fund and, Kotak dynamic bond fund. Here, the risk of SBI dynamic bond fund is greater than the risks of other debt mutual funds. The risk of the SBI mutual fund is 4.214% followed by Axis 2.432, Nippon 1.619, HDFC 1.217, and at last Kotak with the lowest risk of 0.191. By comparing the risks of all the above mutual funds SBI is the riskier fund to invest and Kotak has very low risk so one can think of investing in Kotak among these 5 debt mutual funds as it has the lower risk.

Table No 13: Comparison of Risk and Return

	SBI	NIPPON	HDFC	AXIS	KOTAK
RISK	4.214	1.619	1.217	2.431	0.191
RETURN	7.899	6.411	6.503	7.527	0.504

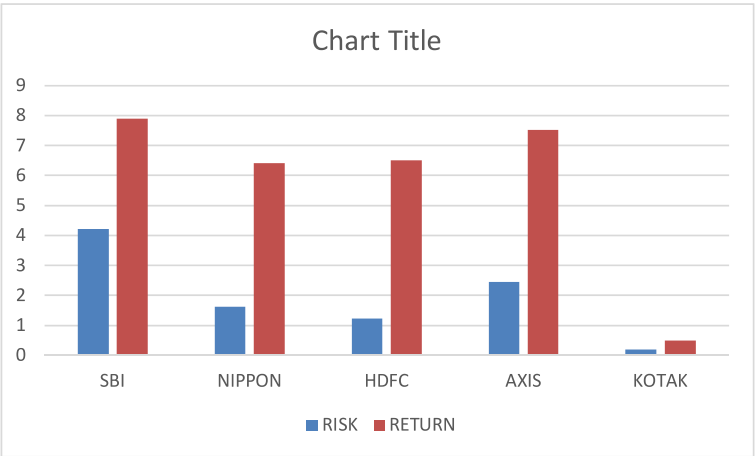

Figure 3: comparison of risk and return of selected debt mutual funds

Interpretation

The above table and graph represent the comparison of risk and return of the SBI dynamic bond fund, Nippon India money market fund, HDFC money market fund, Axis banking and PSU debt fund and, Kotak dynamic bond fund. Here

for SBI even though the risk is high they yield a better return than other debt funds, same way Axis having a high rate of risk it also has better returns. So the investor can think of these two SBI and Axis debt funds while investing as they are the better choice among those debt funds.

Returns of Bank Deposit

Table 14: Returns of bank deposits of selected banks

BANKS	INTEREST RATES
State Bank of India	5.50
Axis Bank	5.75
HDFC Bank	5.60
Bank of Baroda	5.10
Canara Bank	5.75

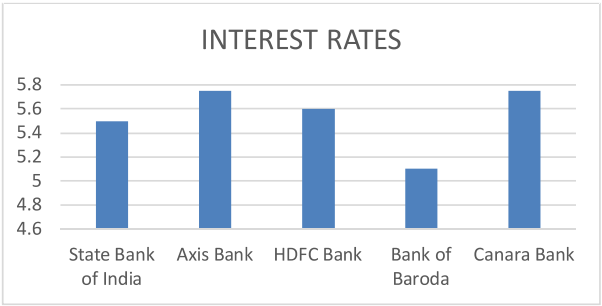

Figure 4: Returns of bank deposits of selected banks

Interpretation

The above table and chart represents the interest rates of the SBI, HDFC, Axis bank, Bank of Baroda, and Canara Bank. Here, the rate of return of Axis Bank is more than the return of other bank deposits. The interest rate of the Axis Bank is5.75% and Canara bank 5.75%, followed by HDFC Bank 5.6%, SBI 5.5%, and at last 5.1%.

Table 15: Comparison of returns of debt mutual fund and bank deposit

	Returns	Returns	Returns	Returns	Returns
Bank deposits	5.50	5.75	5.60	5.75	5.10
Debt Mutual Funds	7.899	6.411	6.503	7.527	0.504

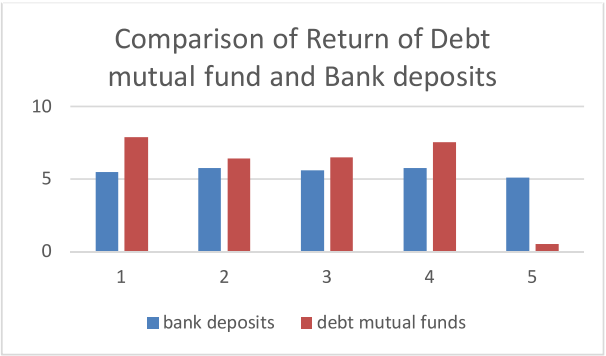

Figure 5: Comparison of returns of debt mutual fund and bank deposits

Interpretation

The above table and chart represent the comparison of return of debt mutual fund and bank deposits. From this chart, we can get a picture that debt mutual funds generate more returns than bank deposits. From return point of view, debt mutual funds are more beneficial than bank deposits when compared to different debt mutual funds and bank deposits.

Table 16: Covariance of debt mutual funds

	SBI	NIPPON	HDFC	AXIS	KOTAK
COVARIANCE	20.073	2.417	-0.469	7.037	0.582

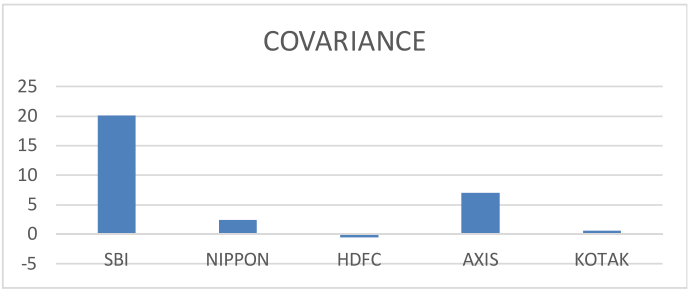

Figure 6: Covariance of debt mutual funds

Interpretation

The above figure and table represent the covariance of selected debt mutual funds. These debt mutual funds are compared with the market return. Here HDFC mutual fund is having negative covariance i.e., -0.469 it means that the market and mutual fund are moving in different directions. The market is moving in the positive direction and mutual fund is moving in the negative direction.

Table 17: Beta

	SBI	NIPPON	HDFC	AXIS	KOTAK
BETA	0.2933	0.0353	-0.0068	0.1028	0.0085

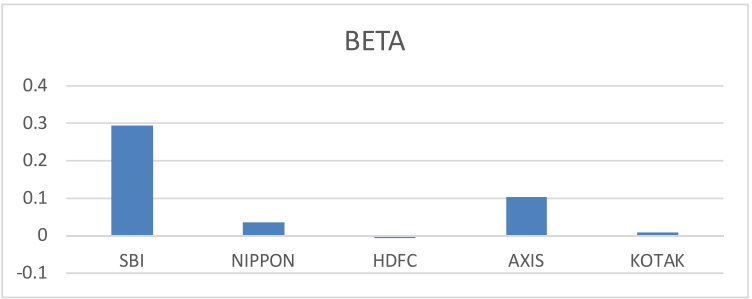

Figure 7: Beta

Interpretation

The above table and figure shows the volatility of the selected debt mutual funds. If the value is more than 1 then it is high volatile it means it has higher risk. If the value is less than 1 it indicates that it is low volatile it means it has less risk. Here the mutual funds are low volatile in nature.

Findings

- Debt mutual funds carry a higher level of risk than bank deposits as the returns are linked to the performance of the bond market. Bank deposits are considered low-risk investments as they are insured by the government up to a certain limit.
- Debt mutual funds have the potential to offer higher returns than bank deposits, especially over the long term. However, the returns from bank deposits are guaranteed and fixed, whereas returns from debt mutual funds can fluctuate.
- The data which are calculated above (Table 1) shows the returns of five debt mutual funds, SBI dynamic bond direct plan growth fund (7.899%), Axis banking & PSU debt fund (7.527%), HDFC money market fund(6.503%), Nippon India money market fund(6.411%), Kotak dynamic bond fund(0.504%) When compared with selected debt mutual funds SBI dynamic bond direct plan growth fund has the highest return among these debt mutual funds followed by Axis, HDFC and Nippon. On the other hand, Kotak has the lowest return among them.
- Based on the calculations above (Table 2) it represents the risk factors of selected debt mutual fund schemes. The risk of SBI dynamic bond direct plan growth fund is 4.214% which indicates it is associated with high level of risk for investing, risk of Axis banking and PSU debt fund is 2.431% which indicates it is associated with a moderate level risk, risk of HDFC money market fund is 1.217% which suggests a level of risk, risk of Nippon India money market fund is 1.619% indicates a moderate level of risk, Kotak dynamic bond has the risk of 0.191% which implies a low level of risk.
- When compared with both risks and returns of selected debt mutual funds although SBI has a higher rate of risk (4.214%) it also gives the greater return (7.899%). Same way Axis which also has a higher rate of risk (2.431%) when compared with other debt funds gives better rate of return (7.527%).
- From Table 10 & Figure 5 we can find that debt mutual funds gives better and higher return than bank deposits.
- The above Figure 6 and Table 11 represent the covariance of selected debt mutual funds. These debt mutual funds are compared with the market return. Here HDFC mutual fund is having negative covariance i.e., -0.469 it means that the market and mutual fund are moving in different directions. The market is moving in the positive direction and mutual fund is moving in the negative direction.
- Table 11 and Figure 7 show the volatility of the selected debt mutual funds. If the value is more than 1 then it is high volatile it means it has higher risk. If the value is less than 1 it indicates that it is low volatile it means it has less risk. Here the mutual funds are low volatile in nature.

Strategic Interventions

- Before investing in any fund, one must have proper knowledge about the fund, schemes, return rate, risk associated with the fund.
- Bank deposits give fixed rate of interest and also have less risk. On the other hand, mutual funds may give more returns with market fluctuations, the rate of return may increase according to the market conditions but it is riskier than bank deposits as there is no guarantee of return.
- For long term investment, investing in mutual fund will be a great idea and decision.
- If an individual expects a higher rate of return by bearing risk, he/she can think of investing in a mutual fund.
- If an investor doesn't want to bear risk and satisfied with the average return he/she may think of investing in the bank deposit.

Conclusion

When an investor wants to invest in any of the investments vehicles, he/she should analyze the company's financial position, risk associated with the fund, and rate of return. The majority of investors' best investing options today may be mutual funds. Investors demand a financial intermediary who can provide the necessary information and skill for effective investment as the financial market becomes more complex.

By comparing the risks and returns of bank deposits and debt mutual funds, we can say that mutual funds give better returns than bank deposits. But risk associated with debt mutual funds is higher than bank deposits. If one is ready to accept the risk and wait for the returns, mutual fund is the best option. If an investor is not ready for any of the risks he may opt to invest in bank deposits.

Returns in the bank deposits are guaranteed, but in the debt mutual fund, returns are not guaranteed as the NAV changes according to the market. When the mutual fund value and market value are moving in the same direction in the same direction then it means both are having positive value, and vice versa. After analyzing the risks and returns of mutual funds, we can conclude that before investing in any of the mutual funds one should go for the market analysis.

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