The Yield-To-Maturity Myopia

Investors should pick debt funds based on multiple factors, and not just YTM

When investing in a debt instrument, the first consideration – and for many of us the only material one – is the yield to maturity (YTM) it offers.

True, YTM is an important barometer that provides effective insight into the instrument's return. However, it isn't the only one. This article seeks to provide an insight into the various factors that investors should consider while investing in debt funds.

But first let us look at what YTM is and how it is computed.

YTM

YTM is the total rate of return an investor earns if the bond he or she has invested is held to maturity. For calculation purpose, it is assumed that the bond is held till maturity, and all coupon/ interest payments are made on time and reinvested at the same rate as the bond's current yield.

YTM is calculated using the following formula:

$$\text{YTM} = \frac{\dfrac{\text{(Annual coupon rate + face value of the bond - market value of the bond)}}{\text{Remaining years of maturity}}}{\dfrac{\text{(Face value of the bond + market value of the bond)}}{2}}$$

Example:

Face value of the bond:
Rs 1,000

Market value of the bond:
Rs 900

Annual coupon rate:
7% or Rs 70
(7% of face value of the bond)

Time to maturity:
5 years

$$\text{In this case, YTM will be} = \frac{\dfrac{(70 + 1000 - 900)}{5}}{\dfrac{(1000 + 900)}{2}} = 9.47\%$$

In the above example, the YTM has been calculated just on one bond. In the case of a debt mutual fund, the weighted average yield of all the bonds the scheme has invested in is computed to generate the portfolio yield. The YTM obtained denotes the total rate of return that an investor can earn if the portfolio is held till maturity.

However, unlike in the case of closed-ended debt mutual funds, such as fixed maturity plans and interval funds, YTMs and actual returns do not match in open-ended debt mutual funds. The reason for this is the churn in portfolio because of inflow, outflow, and other market-related factors such as rating and interest rate changes.

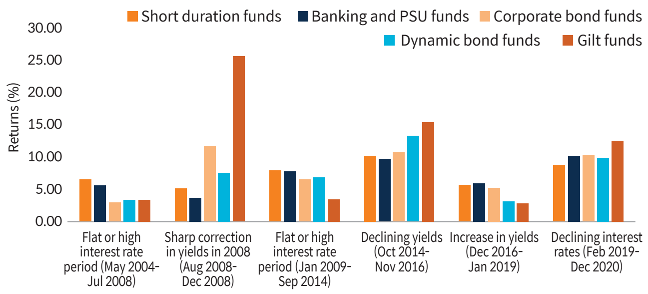
YTM and interest rate movement

Interest rate movement has a huge impact on debt funds based on their YTM. For instance, long-duration debt funds with higher YTM perform well when interest rates fall, whereas funds that follow accrual strategies to minimise interest rate risk do well during flat and high interest rate scenarios.

The market phase analysis chart given below illustrates this clearly. During the phases of falling interest rates – between August 2008 and December 2008 and between February 2019 and December 2020 – long maturity debt funds such as gilt funds scored over shorter duration ones. This happened because when interest rates declined, demand for government securities in these funds' portfolio went up as they carried a higher interest rate than that prevailing. Subsequently, this pushed up these funds' NAVs, which, in turn, boosted their returns.

On the contrary, during the period intervening December 2016 and January 2019, when yields were up, shorter maturity funds such as short duration funds, banking and PSU debt funds and corporate bond funds came up trumps. When interest rates rise, there is a mark-to-market loss as bond yields rise. These short duration funds benefit by reinvesting the proceeds from the maturity of short-term holdings at a higher prevailing rate.

Performance of debt mutual funds categories in various market phases



Returns computed by weighted average index of underlying CRISIL ranked funds of the respective category

Source: CRISIL

Past performance may or may not sustain in future.

The data/performance provided above pertains to the category of scheme and does not in any manner constitute performance of any individual scheme of Mirae Asset Mutual Fund.

Which way to go in the current scenario of low interest rates?

Interest rates have been trending south as the Reserve Bank of India (RBI) cut its policy repo rate (by 225 bps during 2019-2020), assuming an accommodative stance to revive the pandemic-ravaged economy. The cut in policy rate has percolated across instruments - from traditionally favoured bank fixed deposits (FDs) to corporate bonds. While the central government's spending thrust to revive growth is widening its fiscal deficit, putting some pressure on the yields in the near term, the central bank's liquidity measures, including open market operations (OMOs), are expected to keep yields within range.

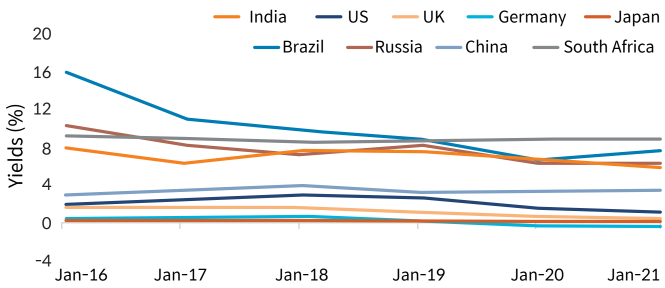
Change in yield of debt instruments over past four years

Instrument	2018	2019	2020	2021*
Repo	6.50%	5.15%	4.00%	4.00%
1-year FD	6.88%	7.06%	6.40%	6.28%
3-year FD	7.19%	6.94%	6.77%	6.74%
1-year G-sec	6.81%	5.57%	3.74%	3.92%
3-year G-sec	7.09%	6.35%	4.41%	4.71%
5-year G-sec	7.24%	6.48%	5.10%	5.29%
1-year AAA corporate bond	8.17%	6.20%	3.95%	4.05%
5-year AAA corporate bond	8.26%	7.05%	5.55%	5.70%
10-year AAA corporate bond	8.39%	7.53%	6.60%	6.75%

Note: Data is as of December-end in respective years
*data as of January 29, 2021
Source: CRISIL Research

That said, falling interest rates are a global phenomenon, and not specific to India. Central banks across the world are using this lever to propel growth that has taken a hit due to the pandemic. In fact, in some advanced countries, such as Germany and Japan, yields are in the negative territory and in some others, they are near the flat line.

India versus global yields



Note: 10-year benchmark G-sec yield of respective countries used for comparison
Source: RBI, US Federal Reserve, Bank of England, Deutsche Bundesbank, Bank of Japan, financial websites

Alternative avenues in low interest rate regime

Taking the right interest rate call is not easy for even the most accomplished investor. Investors can instead diversify by apportioning their money in different debt fund categories of varying maturity profile. Investors can look at medium duration maturity funds such as corporate bonds, banking and PSU debt funds and dynamic bond funds. These funds tend to have their maturity profile in between the long and short maturity funds, thus aiming to provide investors the benefit of both the worlds. Further, dynamic bond funds can also move across the maturity spectrum, based on the interest rate in the underlying market.

Further, a medium- or long-period analysis of medium duration funds shows that they have been able to generate higher returns than FDs. The indexation benefit that increases the tax-adjusted returns from this category makes them all the more attractive.

Period	3 years		5 years		7 years		10 years	
Category	Pre-tax	Post-tax	Pre-tax	Post-tax	Pre-tax	Post-tax	Pre-tax	Post-tax
Banking and PSU debt funds	8.60	6.61	8.22	6.31	8.47	6.50	8.60	6.59
Corporate bond funds	8.60	6.81	8.30	6.58	8.65	6.85	8.41	6.66
Dynamic bond funds	7.96	6.30	8.03	6.36	8.57	6.79	8.61	6.82
3-year banks' FD index	6.94	4.78	7.46	5.13	7.94	5.46	8.12	5.59

Banking and PSU debt funds, corporate bond funds and dynamic bond fund returns represented by CRISIL ranked funds in the category for the quarter ended December 2020
Returns as of January 29, 2021, and are annualised for over 1 year
Assuming investor falls in the highest tax bracket
Post-tax returns based on short-term capital gains tax of 31.2% for holding period of below three years and long-term capital gains tax of 22.88% for holding period more than three years, after adjusting it for the latest cost of inflation index for fiscal
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Other important factors in debt fund selection

Apart from evaluating YTM, it is important for investors to look at some other factors while selecting debt mutual funds:

Consistency in returns:

Consistency in returns, and not just one-off returns, should be the most important yardstick for selecting a debt mutual fund. It is crucial to evaluate the fund's performance across market cycles vis-à-vis the benchmark and peers. Also, consistency should be checked over longer timeframes. Quantitative measures, such as rolling returns, standard deviation, and Sharpe ratio, can help take informed decision.

Portfolio quality:

A debt fund invests in several instruments, ranging from risk-free government securities to high-risk corporate papers. A large proportion of government securities or high-rated paper implies lower credit risk, while higher allocation to low-rated papers (AA or lower) indicates higher risk and lower capability of the borrower to meet repayment obligations. Hence, it is essential to determine the credit quality to gauge the risk assumed by the fund for attaining higher returns, and invest in funds that are in line with the investor's risk-bearing capacity. Details about credit quality can be easily found in the factsheets published by fund houses on a monthly basis

Other factors, such as fund size, fund manager details, and expense ratio:

Fund size is crucial for analysis in the case of debt funds, as the category typically sees substantial inflows and outflows. A large size helps the fund manager deal with redemption pressures. The fund manager's experience and investment style are the other important factors. Expense ratio is the fees charged by the fund house as a percentage of the net assets under management to manage a particular mutual fund scheme. Higher expense ratio can erode returns and make a big difference to a fund's performance.

Summing up

Irrespective of the interest rate situation, investors can aim for stable returns by investing in various debt fund categories. Through Systematic Investment Plans (SIPs), they can make their financial planning more efficient. Considering the future expected obligation and time horizon, those with low-to-moderate risk appetite can begin an SIP in appropriate categories with an aim to meet their goals as an alternative to recurring bank FDs.

Investing in funds by evaluating only their YTMs can, at times, be misleading as it may provide an incomplete picture. Investors should do a comprehensive analysis of the funds they seek to invest in and closely evaluate returns consistency, portfolio quality, fund size, etc. They should also consider their own risk profile, goals and investment horizon while making a decision.

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