The LightHouse

YOUR GUIDE TO BUILD WEALTH & BE FREE BY AVOIDING DISASTERS

| **August 2023 Edition** |

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DISCLAIMER

All content in this newsletter is for information and education purposes only. It should not be considered as a recommendation or investment advice.

Can Sharpe ratio help you define risk and choose an investment?

The Sharpe Ratio is one of the risk adjusted returns methods used in evaluating financial investments. Created by William Sharpe, the ratio tells us how much an investment instrument compensates us for the risk it takes.

Put it simply, life is good without risk. You and I can safely invest in a government bond, a bank FD or a PPF and ignore all the volatility and market noise.

But then will it be enough to help us fulfill our financial goals?

That's what drives us to pursue market linked investment, to embrace the volatility to seek higher returns than the safe havens that we already know.

The question that comes into mind though is whether the risk that you are taking is being adequately rewarded. Are you being compensated well for the risk you are taking?

Or better, between two market linked investments (say your mutual funds), which one offers you a better return for the risk taken?

All these questions are supposedly answered by Sharpe Ratio.

And it does it by using a simple calculation.

Sharpe Ratio = Excess Return / Standard Deviation of returns

Where, Excess Return = Total return of the investment – Risk free return

Step 1: Find the excess return you earned in comparison to the risk free return. The risk free return is typically a government bond return – which currently happens to be somewhere between 6 to 7%. You may also use a short tenure Bank FD interest rate for the same.

Step 2: Find out the standard deviation of the returns of the investment. The Standard Deviation takes into account all the values of the investment (say daily Mutual Fund NAVs over the past 3 years), calculates an average of these values and then finds out the variation around the average or mean. Standard deviation measures volatility.

Step 3: Divide the excess return by the standard deviation. The result is the Sharpe Ratio.

Do it for a few more investments and you can do a comparative analysis to decide which one had a better 'risk-adjusted return'.

Quite simple, right.

And therein lies the flaw.

The Standard Deviation depends on a very fundamental assumption that all market movements follow a normal distribution around an average.

Unfortunately, they don't.

One example should make it clear. In a hall, there are 100 people with an average height of 5 ft 7 inches and MotaBhai walks in. What is the average now of 101 people?

However, the average wealth of the same 100 people is 1 crore and MotaBhai walks in. What will be the average now for the 101?

Life and markets are much messier.

Normal distributions (as those applied to observing height, weight, etc.) cannot apply here.

The major changes in the markets are a result of big movements (rise – 2017 or crash – 2008). The markets may not move for a long time, stay flat and then suddenly we can see a huge uptick.

A black swan event, which is rare as well as unpredictable but with huge consequences, can mess up the average. The same is true for most risk measures.

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Another thought exercise:

Following is a table of 5 investment options (A, B, C, D and E) and their sequence of returns over 5 periods. They look quite random.

	A	B	C	D	E
Return 1	0	1	1	-5	3
Return 2	0	0	2	1	1
Return 3	0	1	-2	20	-5
Return 4	0	0	3	-3	5
Return 5	3	1	-1	-10	-1
Total	**3**	**3**	**3**	**3**	**3**
Std Devi	1.34	0.55	2.07	11.55	3.85
Mean	0.6	0.6	0.6	0.6	0.6
Sharpe	0.40	0.99	0.26	0.05	0.14

Made by Unovest. The risk free rate is assumed at 6%.

Interestingly, the final result for all 5 is the same, despite their different journeys.

Now, if the risk adjusted returns measured by Sharpe Ratio is your benchmark, you are likely to wonder?

The more you can resolve the fluctuations or reduce the volatility, the better the Sharpe ratio.

A few questions now:

Question 1: Which investment would you pick / reject on the basis of Sharpe Ratio?

Question 2: Which of these representative investments is actually in your portfolio?

Question 3: How can you assess the chances of permanent loss of capital?

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So, what do you do?

Well, firstly, take ratios such as Sharpe Ratio with a pinch of salt.

Next, understand that the real risk is the risk of permanent loss and not temporary loss due to volatility in prices.

MARKET INDICATORS

Our current view on Equity and Bonds/Fixed Income.

ASSET CLASS	VALUATION ZONE	ACTION BIAS
EQUITY	NEUTRAL	**HOLD**
BONDS	POSITIVE	**BUY**

Equity - The markets have moved up strongly and we are more or less into cautious territory.

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Bonds - The fixed income yields are at near peak. The 10-year G-Sec saw a slight rise over the last month. As of Aug 1, 2023 the 10 year rate is at 7.15% vs 7.11% in July 2023 and the 3 month yield is at 7.4% (*unchanged*).

This is how various investment fixed income options stack up.

Investment	**Interest Rate or Yield to Maturity**
SBI Fixed Deposit (1 year to <2 year)	6.8% - *Senior citizens get 0.5% extra (UNCHANGED)*
Parag Parikh Liquid Fund	6.7% (July 2023) vs 6.78% (June 2023)
HDFC Short Term Debt Fund	7.73% (July 2023) vs 7.64% (June 2023)
HDFC Medium Term Debt Fund	7.95% (July 2023) vs 7.85% (June 2023)
RBI Floating Rate Bond*	8.15% (April 2023) vs 7.35% (Jan 1, 2023)
Bharat Bond Apr 2032	7.45% (Aug 1, 2023) *unchanged since July*

*Complied by Unovest: Updated on Aug 1, 2023, *Pegged to NSC rate + 0.35%.*

CURRENT INVESTING ACTION SUMMARY - AUGUST 2023

OVERALL ACTION → Stick to your asset allocation and invest accordingly.

STRATEGIC ALLOCATIONS

Conservative Investor	Moderate Investor	Aggressive Investor
For Equity - Stick to large cap funds / ETFs and to less than 40% allocation to equities. **For Fixed Income** - Stick to Bank Fixed Deposits, EPF / PPF, RBI Bonds or other small saving schemes In debt funds, use only sovereign funds or funds such as Bharat Bond **Hybrid funds** can be a good option to consider now.	**For Equity** - You can use large cap funds / ETFs along with midcaps for not more than 60% allocation to equities. **For Fixed Income** - Along with EPF / PPF, RBI Bonds you can consider Dynamic Bonds, Short term debt funds and Corporate Bond Funds. **Hybrid funds** can be a good option to consider now.	**For Equity** - You can use large cap funds / ETFs along with midcaps / smallcaps for not more than 80% allocation to equities. **For Fixed Income** - You can consider Dynamic Bond Funds, Short / Medium term debt funds and Corporate Bond Funds. **Hybrid funds** can be a good option to consider now.

Remember, your goals and time horizon along with your risk profile should dictate your allocations.

EQUITY ACTION →

- If you have SIPs in mutual funds, let them continue.
- If you have a lump sum to invest, it would be better to spread it out over 6 to 12 months, within the asset allocation framework.

Investors can consider insuring their portfolios in a way that an extreme event does not hurt the portfolios. In fact, done right, insurance can increase overall portfolio returns.

BONDS ACTION→

Yields have cooled off but still at near peak.

You can continue to add short/medium term debt investments for your debt/bond allocation (lump sum and/or systematic).

Even with the long term capital gains tax provision going away for investment after April 1, 2023, debt funds can deliver substantial capital gains as and when the RBI starts reducing interest rates.

THE MAGIC FORMULA on DIRECT STOCKS

Quality at the right price

There are 2 basic rules to use in the Magic Formula.

1. Identify stocks with superior historical returns on capital employed.
2. From the above, further identify the stocks currently providing the best yield. In other worlds, not overvalued or overpriced.

Rank them and invest in the top 15, 20, 25 or 30 - pick your number based on your requirement of diversification.

We filter stocks with the following parameters.

1. The stock should have a current market capitalisation of at least Rs. 20,000 crores - the largest of the companies.
2. The average Return on Capital Employed (ROCE) in the last 10 years should be 20% or more.

In the display table, we added a column of historical 3 year PE (Price to Earnings) as well.

Next, we calculated the **Quality Score**. The highest average 10-Year ROCE stock got the highest score.

Subsequently, a **Value Score** was provided wherein the 3-Year PE was used to rank the stocks. The one with the lowest average 3-Year PE got the highest score. (The opposite of P/E is E/P or the Earnings Yield)

We add the 2 scores to calculate the final rank.

Note: You can create your own variation of the Magic Formula. The one used in this newsletter is also a variant of the one proposed by Joel GreenBlatt in his book “The Little Book that beats the market”,

Below is the shortlist of the Top 30 ranked stocks - a combination of Quality and Value - based on the Magic Formula defined above.

S.No.	Aug 25, 2022	Dec 31, 2022	Mar 31, 2023	Jun 30, 2023
1	Coal India	Coal India	Coal India	Coal India
2	Sun TV Network	Oracle Fin.Serv.	Tata Elxsi	Oracle Fin.Serv.
3	L & T Infotech	LTI Mindtree	Oracle Fin.Serv.	TCS
4	Tata Elxsi	Tata Elxsi	LTI Mindtree	ITC
5	Oracle Fin.Serv.	TCS	TCS	Hindustan Zinc
6	TCS	NMDC	NMDC	Bajaj Auto
7	ITC	ITC	ITC	Colgate-Palmoliv
8	NMDC	Bajaj Auto	HCL Technologies	LTIMindtree
9	Bajaj Auto	HCL Technologies	Bajaj Auto	Hind.Aeronautics
10	HCL Technologies	Infosys	Infosys	Infosys
11	Infosys	Hind.Aeronautics	Hind.Aeronautics	HDFC AMC
12	Hind.Aeronautics	Hindustan Zinc	Hindustan Zinc	NMDC
13	Mindtree	Petronet LNG	Petronet LNG	HCL Technologies
14	Hindustan Zinc	Colgate-Palmoliv	Colgate-Palmoliv	Petronet LNG
15	Petronet LNG	Tech Mahindra	Tech Mahindra	Supreme Inds.
16	Colgate-Palmoliv	Supreme Inds.	Supreme Inds.	Eicher Motors
17	CRISIL	Eicher Motors	Coforge	CRISIL
18	Supreme Inds.	Indraprastha Gas	Indraprastha Gas	Coromandel Inter
19	Tech Mahindra	CRISIL	Eicher Motors	Indraprastha Gas
20	Eicher Motors	Coforge	CRISIL	Bharat Electron
21	Coforge	Bharat Electron	Bharat Electron	Glaxosmi. Pharma
22	Bharat Electron	Vinati Organics	Marico	Tech Mahindra
23	Marico	Marico	Britannia Inds.	Tata Elxsi
24	Vinati Organics	Persistent Sys	Persistent Sys	Britannia Inds.
25	Emami	Britannia Inds.	Hind. Unilever	KEI Industries
26	Britannia Inds.	Hind. Unilever	Abbott India	Coforge
27	Persistent Sys	Coromandel Inter	Divi's Lab.	Marico
28	Hind. Unilever	Abbott India	Coromandel Inter	Hind. Unilever
29	Coromandel Inter	Divi's Lab.	APL Apollo Tubes	K P R Mill Ltd
30	K P R Mill Ltd	Bayer Crop Sci.	Page Industries	Divi's Lab.

Magic Formula Performance Update:

We first shared the Magic Formula stock watchlist as of Aug 25, 2022. For the purpose of tracking performance, investment was made on Sept 1, 2022 for about Rs. 10 lakhs, actually, 9.93 lakhs.

We chose to invest in the top 25 ranked stocks from the list and they got an equal investment.

As of April 4, 2023, the total return (including dividends) is 1.4%. In contrast, the BSE 500 Index has a return of (-) 4% approx.

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→ July 4, 2023 update:

The Total Absolute return on the portfolio is 14.1% (including dividends) vs the BSE 500 Index return of 8.19%.

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The next rebalance will also happen after 1 year of the start of the portfolio, that is, on Sept 1, 2023.

Note: *If you would like a detailed transaction list for the above investments, please do write to me.*

FUND WATCHLIST

Some of the funds we observe.

FUND NAME	CATEGORY	BRIEF DESCRIPTION	INVESTOR RISK PROFILE	TIME HORIZON
PARAG PARIKH FLEXI CAP FUND	EQUITY - FLEXICAP	Go anywhere fund, international stocks, arbitrage, holds cash, low volatility & turnover with focus on capital protection.	ALL	5 YEARS PLUS
EDELWEISS BALANCE ADVANTAGE FUND	EQUITY - HYBRID (DYNAMIC ALLOCATION)	Trend driven Dynamic allocation to equity based on fundamental and technical indicators to reduce volatility & drawdown, tax free rebalancing.	CONSERVATIVE, MODERATE	3 YEARS PLUS
DSP QUANT FUND	EQUITY - LARGE / MIDCAP	The fund uses an in-house quantitative model to build its portfolio from the universe of BSE 200 stocks. It operates as a low cost, passive fund with up to 4 rebalances during a year.	ALL	5 YEARS PLUS
DSP VALUE FUND	EQUITY - VALUE	The fund builds its portfolio using a value style framework - a combination of quality and price. It also has a mandate to	ALL	10 YEARS PLUS

		invest up to 35% of its portfolio in international funds/stocks.		
MOTILAL OSWAL S&P 500 INDEX FUND	EQUITY - INTERNATIONAL LARGE CAP (PASSIVE)	A low cost index fund that replicates the portfolio of S&P 500 index (largest 500 companies) in the USA.	ALL	5 YEARS PLUS
FRANKLIN INDIA FEEDER US OPPORTUNITIES FUND	EQUITY - INTERNATIONAL FLEXICAP	A feeder fund that invests in Franklin US Opportunities Fund, a multi cap fund portfolio of US based listed stocks across market caps.	MODERATE, AGGRESSIVE	5 YEARS PLUS
MOTILAL OSWAL NIFTY MIDCAP 150 INDEX FUND / NIPPON INDIA NIFTY MIDCAP 150 INDEX FUND	EQUITY - MIDCAP (PASSIVE)	A low cost index fund that replicates the portfolio of Nifty Midcap 150 index (representing 101st to 250th rank of the Nifty 500 index) in India.	MODERATE, AGGRESSIVE	5 YEARS PLUS
UTI NIFTY NEXT 50 FUND / ICICI PRU NIFTY NEXT 50 INDEX FUND	EQUITY - LARGE CAP (PASSIVE)	A low cost index fund that replicates the portfolio of Nifty Next 50 index (representing stocks from 51st to 100th rank based on various factors) in India.	ALL	5 YEARS PLUS
HDFC INDEX FUND - NIFTY 50 PLAN	EQUITY - LARGE CAP (PASSIVE)	A low cost index fund that replicates the portfolio of Nifty 50 index (representing stocks	ALL	5 YEARS PLUS

		from 1st to 50th rank based on various factors) in India.		
PARAG PARIKH TAX SAVER FUND	EQUITY - TAX SAVINGS	Tax savings fund based on the same investment philosophy as the Flexicap fund except international stocks	ALL	3 YEARS PLUS
AXIS TREASURY ADVANTAGE FUND	DEBT - LOW DURATION	Low cost, low volatility fund with low maturity profile and high credit exposure	ALL	2 YEARS PLUS
HDFC SHORT TERM DEBT FUND	DEBT - SHORT TERM	Predominantly high credit quality, low risk portfolio with one of the lowest expense ratios.	MODERATE, AGGRESSIVE	3 YEARS PLUS
QUANTUM DYNAMIC BOND FUND	DEBT - DYNAMIC BOND	A conservatively managed debt fund that manages its portfolios based on interest rates movements with a portfolio of Govt Securities and high rates PSU Bonds only.	CONSERVATIVE, MODERATE	3 YEARS PLUS
HDFC CORPORATE BOND FUND	DEBT - CORPORATE BONDS	A high credit portfolio of AA and higher ratings	ALL	3 YEARS PLUS
HDFC HYBRID EQUITY FUND	HYBRID - AGGRESSIVE	Asset Allocation to Equity: Debt reduces volatility.Tax free rebalancing with large cap like outcome.	MODERATE, AGGRESSIVE	3 YEARS PLUS

Compiled by Unovest

Note:

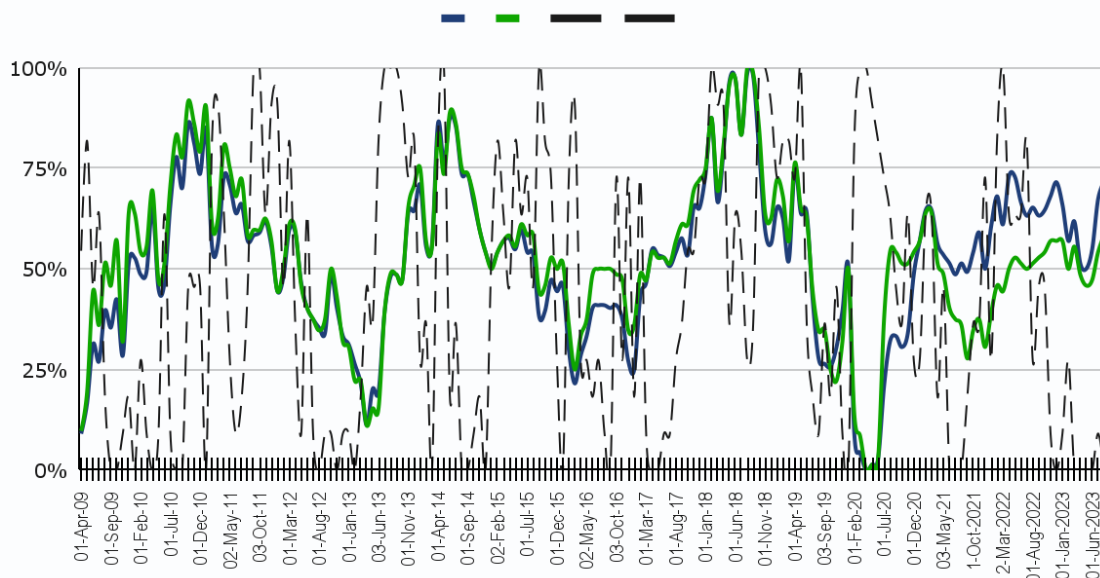
- Some of the international funds have started to accept new investments with a cap per PAN per month.
- Tax Saver funds have a lock in of 3 years during which you cannot sell the investment.
- All debt funds have a mark to market feature which makes their NAV fluctuate based on interest rate changes. Debt fund investments made from April 1, 2023 onwards do not have the benefit of long term capital gains tax.

ANNEXURE - MARKET INDICATORS

ASSET ALLOCATION INDICATOR

We use 3 inputs in our models - Nifty 200 Price to Earnings, Nifty 200 Price to Book and 10 Year G-Sec Yield. We have built 2 indicators and this is what they tell us. Scores are as of Aug 1, 2023.

Nifty 200 PE - 10 Year GSec based Model (Green line)	Score: **58.3%**	HOLD
Nifty 200 PE - PB - 10 Year GSec based Model (Blue line)	Score: **71.5%**	HOLD



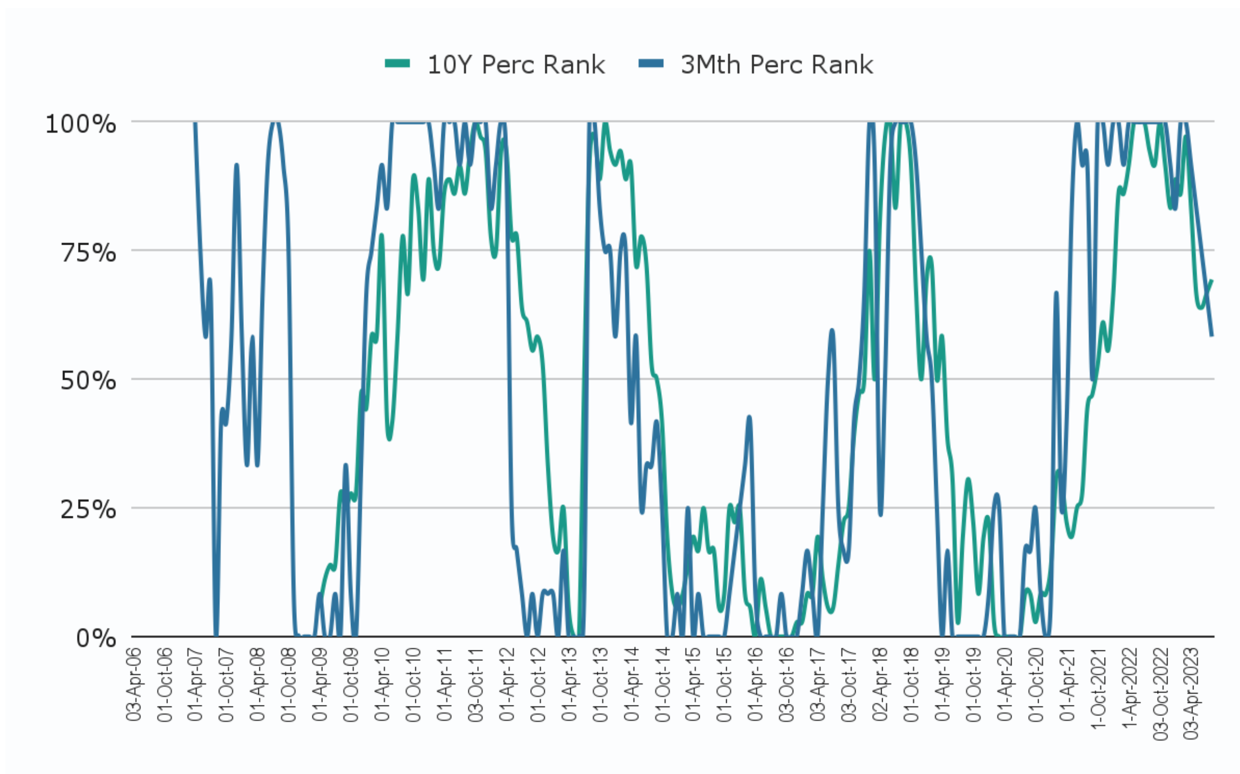
Data Source: NSEIndia.com and Investing.com, prepared by Unovest

The recent run up in the markets have pushed the lines and pushed the indicators to the upper half. Not a time to get adventurous.

Volatility indicator or VIX is an independent indicator to cross check the AA model.
The dotted red line in the above chart indicates the VIX percentile. It continues to be at historical lows. Is this when it can bite? What do you think?

BOND YIELDS

The 3-month (6.74% unchanged) and 10-Year (7.15%) yields are now much below the 100th percentile levels (as of Aug 1, 2023). See chart below.



Data Source: Investing.com, prepared by Unovest

BEER - A new insight into overvalued or undervalued markets

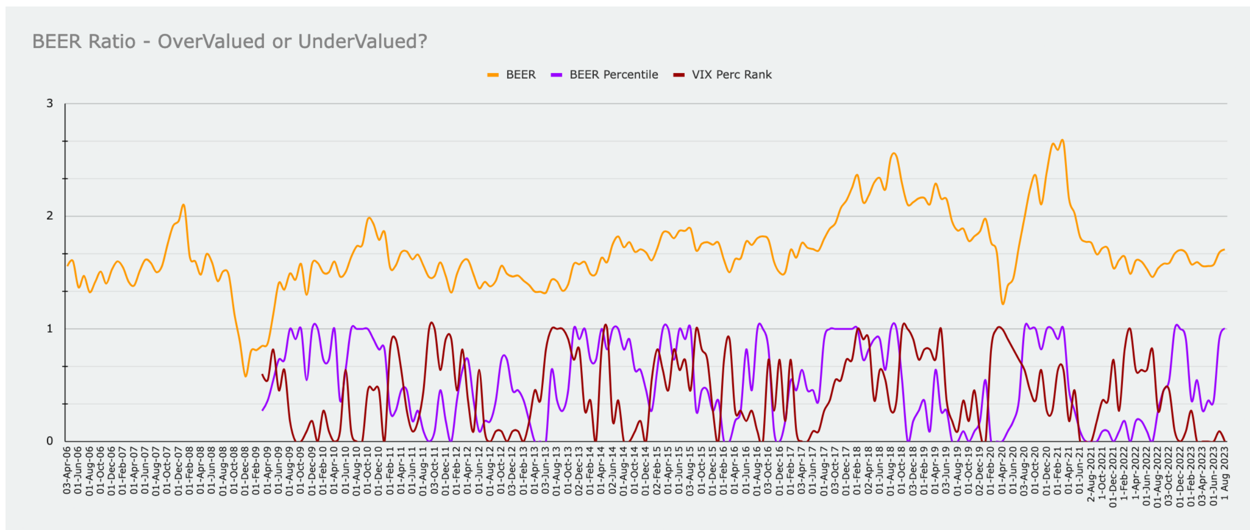
Short for Bonds Equity Earnings Yield ratio, the BEER indicates the relationship between earnings of a bond and that of a particular stock or stock index, such as Nifty/Sensex.

A ratio of **1 or above** that there is no reason to prefer stocks over bonds as bonds deliver the same or better yields.

A **less than 1** ratio indicates that the stocks have become attractive / have better yields than bonds.

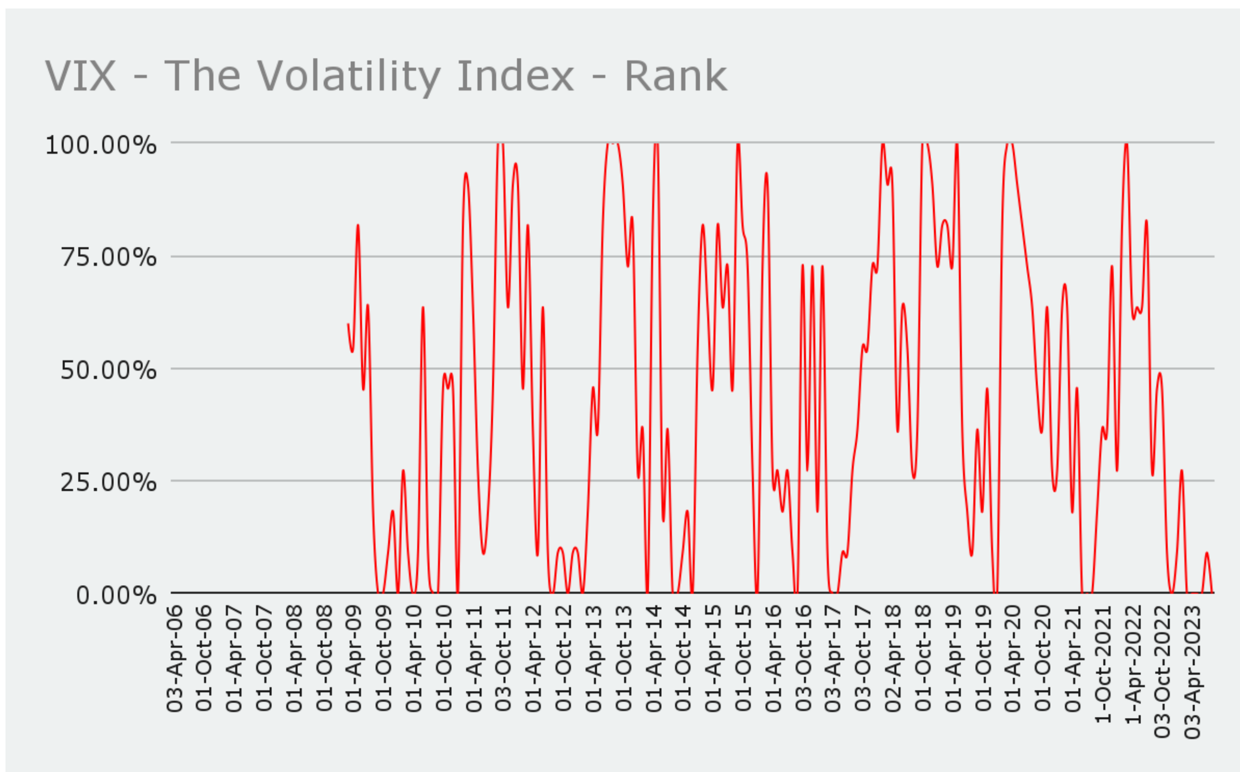
Unovest calculates the BEER using the 10 year G-Sec yield and the Nifty 200 earnings yields. The latter is the inverse of the P/E ratio.

Here's the chart - 2009 onwards.



VIX - A new insight into diversification or loss prevention

Volatility Index or VIX is a measure of the market expectation of volatility in the near term. Higher the VIX, higher the expected volatility and vice versa. India VIX is a volatility index based on the NIFTY Index Option prices. From the best bid-ask prices of NIFTY Options contracts, a volatility figure (%) is calculated which indicates the expected market volatility over the next 30 calendar days. India VIX uses the computation methodology of CBOE, with suitable amendments to adapt to the NIFTY options order book. (Source: NSEIndia)



TERMS SIMPLIFIED

BEER

Short for Bonds Equity Earnings Yield ratio, the BEER indicates the relationship between earnings of a bond and that of a particular stock or stock index, such as Nifty/Sensex.

A ratio of 1 or above that there is no reason to prefer stocks over bonds as bonds deliver the same or better yields.

A less than 1 ratio indicates that the stocks have become attractive / have better yields than bonds.

TRACKING ERROR

In case of funds/ETFs that track an index, tracking error helps to evaluate how closely or not the fund is doing the job effectively. Lower the tracking error, the better it is.

Tracking error is the result of buying, selling, delay in adjusting the fund to the benchmark, etc.

Mathematically, it is the annualized standard deviation of the difference of returns of the fund and the index.

YTM or YIELD TO MATURITY

We know that every bond has an interest rate attached to it. The RBI Floating Rate Bond, 2020 pays out 7.15% per year, for example.

Now, this assumes a static value of the bond. Again, for example, the RBI Bond has a face value of Rs. 1000 per bond unit.

But when the value is marked-to-market, it can change. This Rs. 1000 may become Rs. 1100 or Rs. 950.

At that point, if you, as an investor, buy the bond at Rs. 1100, that becomes your buy price. However, the interest rate on the bond is still 7.15%.

So, the rate of return on your investment will be the interest rate divided by the price.

7.15% divided by Rs. 1100, that is, 6.5%. This is also called the yield.

If you have understood this then you can grasp the fact that yield to maturity indicates all the returns that a bondholder will receive if s/he holds to bond till its maturity. There is a formula to calculate that and you can easily find it on Google.

THANK YOU FOR READING THE LIGHTHOUSE.

Do send your responses, queries and feedback to vipin@unovest.co

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