RESEARCH METHODOLOGY

There is plethora of investment ideas and opportunities to choose from. To identify the best investment avenue suitable for our clients from a wide range of products such as PMS, mutual funds, and various other structured products, we follow a detailed research-driven investment approach and necessary due-diligence before shortlisting any products.

To commence with, on a semi-annual basis we perform a detailed analysis on the entire universe of all respective investment avenues, this research is based on our in-house developed quantitative model and qualitative factors before finalizing top 2-3 high conviction ideas in each category.

Part 1: Quantitative Analysis

Quantitative analysis involves studying the various kinds of historical returns; various risk matrixes, even various portfolio ratios. In our quantitative model, we distribute points to each fund in its respective category based on the shortlisted parameters and then find the cumulative score of each fund which is then rated to find the top performing fund. To revalidate these top funds we once again review their capture ratios and rolling period returns to finalize around 5-7 funds each category. These funds must clear the qualitative test to be part of our final top funds. Post completing this quantitative and qualitative study, the list of these 5-7 funds in each category is further categorized in 3 colors green, yellow and red. Green stands for selected top funds, yellow stands for watch list (usually because we need more confidence on the qualitative aspects) and red stands for outliers (trap of recency bias). Usually only 2-3 selected funds in category are rated green.

Our shortlisted Quantitative Parameters are:

Types of Return
- Annual absolute return
- Trailing return
- Rolling return

Risk parameter
- Standard deviation
- Sharpe ratio

Other ratios
- Expense ratio
- Turnover ratio
- Alpha ratio

PART 1
QUANTITATIVE ANALYSIS

STAGE 1
TBNG QUANTITATIVE MODEL

STAGE 2
ANALYSING THE CAPTURE RATIO

STAGE 3
ROLLING RETURNS

PART 2
QUALITATIVE ANALYSIS

PART 3
THIRD PARTY FUND RATING

PART 4
PORTFOLIO CONSTRUCTION
& PERIODIC REVIEW

Stage 1: TBNG Quantitative Model

Return: Analyzing long term, medium term and short term returns. Our model allocates weightage of 20% to each respectively.

- Long term = 10 years annual return
- Medium term = 10 quarters trailing return
- Short term = 10 months trailing return

Risk: Analyzing 3 year average Sharpe, Volatility of the respective fund portfolio. Our model allocates weightage of 10% to each respectively.

Other ratio: Analyzing 3 year average Alpha of the portfolio, yearly expense ratio and turnover ratio. Our model allocates weightage of around 10% to Alpha and 5% to expense ratio and turnover ratio each respectively.

We rank all this data based on our model and allocated weightage to get a list of around top 5-7 funds in each category.

Stage 2: Analyzing the Capture Ratio

Capture ratio measures the performance of an investment during upward and downward market trends with respect to its benchmark index. These ratios are basically a statistical representation of how a fund manager has managed the fund during different market conditions for addressing risk.

Upside capture ratio
Upside capture ratio evaluates the performance of an investment against a benchmark index in a bullish market scenario.

Downside capture ratio
Downside capture ratio is precisely the opposite of the above. It evaluates the performance of an investment against a benchmark index in a bearish market scenario.

Stage 3: Rolling return

As market witnesses ups and downs, final trailing returns can vary widely from one point to another. Trailing returns have a recency bias which means a sharp uptick in recent performance will make returns across all trailing periods look healthy. Similarly, a recent underperformance will make all returns appear weak.

In order to overcome this shortcoming, we consider the "rolling returns" of a fund. Rolling returns are the annualized returns of the scheme taken for a specified period (rolling returns period) on every day/week/month and are captured till the last day of the duration. The two important parameters in the rolling returns are the period over which you want to see the rolling returns and the investment horizon (also known as the rolling return period).

For example, if you have a 5-year investment horizon (holding period) and want to see rolling returns of a fund from 1/12/2005 to 1/12/2019, you start by calculating annualized return from 1/12/2005 to 1/12/2019 (change in NAV between 1/12/2005 to 1/12/2010, annualized). Next calculate the annualized return from 2/12/2005 to 2/12/2010, then from 3/12/2005 to 3/12/2010, so on so forth. Basically, you are calculating the 5-year annualized returns of the scheme on every date, over the last 15 years (approx).

Rolling returns helps to measure a fund's consistency over a long period of time. We can measure the funds' absolute and relative performance over a period of time at regular intervals. Rolling returns makes the return study more indicative with the actual performance of the fund.

Part 2: Qualitative Analysis

Qualitative research involves collecting and analyzing non-numerical data. For example, Fund manager con-call, interviews, AMC process and even studying how trustworthy are the AMC and its parent company are.

Qualitative Methods are useful in determining the Future prospects of the Fund. Here are few of the important qualitative parameters that we analyse.

Investment Team:
The future returns of the fund are largely dependent on the investment decisions that a fund manager makes, thus an experienced fund manager is one of the most important criteria for selecting any fund. Every fund manager has its own expertise and fund management style, analysing their relevance in current market scenario is crucial. Studying the past track record of the AMC and its parent company based on various parameters such as how transparent and trustworthy the fund house is? For example, if the fund house is maximizing short-term profits, they won't close a fund even if further assets could impair performance and they might keep fees higher than necessary. Or they might, to the detriment of shareholders, merge two funds with distinctly different strategies. Firms seeking near-term gains sometimes launch funds that may be hot sellers but aren't great investments and won't lead to good investor outcomes. In short, we are looking for a partner we can trust for many years to come.

Investment Process:
Understanding where and how is the fund going to manage its investor's money. It is a critical part of the selection process as it states which fund has been able to implement a successful strategy and generate an active return out of it. Although we agree that both processes and fund managers will play key roles in the funds performance still we prefer selecting funds which give more weightage to process-driven investment philosophy as compared to an individual-driven fund. With the industry growing, process has become extremely critical as things can't be left to people alone. In other words the entire investment team or committee knows what the fund manager is doing, why is he buying or selling a particular stock and the portfolio is not individually driven by the fund manager. With our experience we have learned that Processes create discipline, which restricts people from getting carried away and taking emotional decisions. The advantage of a process-driven fund is that if the fund manager leaves, it is easier for the fund house to find another fund manager who can operate within the defined investment objective of the fund.

Other funds managed by the same fund manager and fund house:
Usually all the fund houses have funds across different category in their product offering or one particular fund manager is usually managing various funds. This is important because a scheme's performance also depends on how the fund house is doing overall in managing investors' hard-earned money. Although some fund houses may have one-off winners in their product offerings, but good and reliable funds often come from fund houses that follow robust investment processes and systems. We also study the overall lap ratio across the funds of the same AMC.

This also helps in understanding the fund house's investment philosophy and expertise along with an understanding of the fund house or fund manager's investment style growth or value strategy. For example, if a fund manager frequently churns the portfolio of a scheme, he could be following the market momentum. Similarly, although a concentrated portfolio echoes conviction, it exposes investor to higher risk which should be explicitly discussed with the investor.

Investment Style:
Portfolio valuation defines the Portfolio Style. It sometimes becomes difficult to ascertain the investing style and preferences of the fund manager only by looking at the fund portfolio. This is where the fund's PE ratio and average market capitalization become good reference points.

Growth:
A high portfolio PE would indicate that the scheme mostly holds stocks that are quoting a valuation premium. This

indicates a preference for growth oriented businesses. In a growth based approach, the fund manager does not shy away from paying a high price for stocks that are according to him exhibiting healthy growth in profitability.

Value:
On the contrary, if the PE of the fund is on the lower side, it signifies a value-conscious approach. Here, the fund manager is more comfortable looking for stocks that are currently out of favour or where the stock price has been beaten down disproportionately to the fundamentals of the company.

Market capitalization of the fund:
Understanding and comparing the market-cap profiles of a fund with the peer in its category is very important. For example, if a mid-cap fund is carrying a lower market capitalization than its peers, it suggests the fund manager has deep dived into mid-and-small cap universe of stocks and is indicative of higher level of aggression translating to higher risk as compared to its peers.

Sector and stock allocation:
We compare the sector allocation of each fund with its peers and benchmark and try making a list of positive, neutral and negative sectors for each fund house. We attempt to study the concentration of top 10 stocks in the portfolio. These numbers aid us in making more informed decision.

Part 3: Third party fund rating

Post providing unique ratings to each fund based on our qualitative and quantitative model and before finalizing the scheme to invest, we compare our ratings with the ratings provided by third party agencies such as Value Research, Morningstar, Crisil, etc. as a final verification process. We don't over depend on third party ratings as it can be quite confusing because everyone has their own way of ranking funds. But good rating by other third party agencies to our shortlisted funds acts as a good confidence booster and also an early red flagger in case of significant rating difference.

Conclusion:
Overall parameters of the quantitative and qualitative analysis and the historical performance of funds are just the starting point Understanding the qualitative aspects helps in understanding how the fund is likely to perform in future.

Our study does not end here, we understand that markets are highly dynamic and we have to be proactive rather than reactive. We also have **monthly performance review systems** in place for our key recommended funds. This helps in raising early red flags and gives us adequate time to collect and analyze the related data and make an informed decision.

A particular fund cannot always be a top performer. Different market scenarios are suited well for different investment strategies and this is where qualitative analysis places a vital role. We always advise our investor not to panic due to a temporary underperformance of a particular scheme. But try understanding the rationale of recent under performance and the fund's future prospects with our help.

Part 4: Portfolio construction and Periodic review

Apart from our semi-annual and monthly review process in selecting the scheme we also pay equal importance in building our clients investment portfolio as per their risk profile. For example, at the time of building the portfolio we ensure adequate diversification across investment style, category, fund house and even fund manager, along with this our periodic portfolio review process aids us to be proactive rather than reactive. We would honestly admit that we cannot be right all the time but having a clearly defined process at each step definitely helps us in increasing the probability of a successful outcome from the selected holdings in the portfolio.

At TBNG, be it fund selection, risk mitigation, portfolio construction, portfolio review or monitoring, we have clearly defined internal processes.

Case Studies

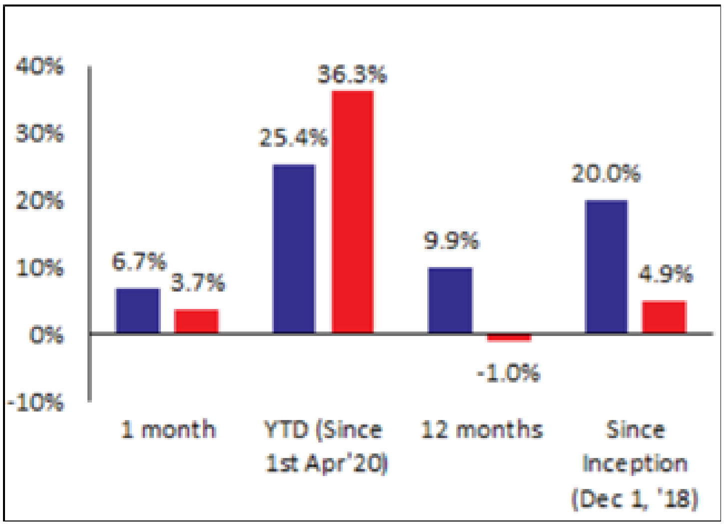
Case Study: High Credit Risk funds

We are happy to share that through our multi-layered research methodology we have been successful in preserving our client's capital by successfully avoiding recommended fund houses with high credit risk portfolio. Though they had good performing debt funds but they failed to clear our qualitative test. In our qualitative model we strictly avoid high credit risk funds. In our investment ideology we don't find it in our client's interest that just for earning 1-2% more we should put our client's original capital at risk.

Case Study: Equity PMS Strategy

With the help of robust research methodology, we identified this PMS strategy which we find to be ethical and functions in the best interest of our clients. The investment team is highly process oriented and the fund manager is highly capable to identify the right stocks to invest for long term wealth creation with strong internal filters. They offer a profit sharing model wherein the client doesn't have to pay fixed management fees. Essentially, the investor has to pay a fee only when the returns are above the predefined hurdle rate.

Performance of Recommended PMS as on 31st October 2020 (INR)



Red: Nifty Total Return Index, Blue: Recommended Equity PMS

Case Study: Global Diversification with Equity Taxation

We were early to identify a multicap globally diversified fund which also gives us the benefit of equity taxation. COVID-19 has impacted economies worldwide and making a prediction of the outcome may just be futile. What an investor may still do is to ensure that the portfolio is diversified geographically. This recommended fund is permitted to invest up to 35% in International Equities.

What we found highly ethical about the management team is that they themselves invest in their fund. This instills a sense of accountability ensuring that the fund management team is investing their own monies along with those of the clients. Demonstrating the willingness to link their own financial well-being with yours.

Case Studies

Return study 1: Annual Returns

Particular	2019	2018	2017	2016	2015	2014
Local fund with global diversification	14.43	-0.43	29.36	3.28	8.94	44.82
Nifty 50	12.02	3.15	28.65	3.01	-4.06	31.39

Return study 2: Rolling Return vs Category

Category:- (Equity: Multi Cap)
Start Date:- 01-01-2014
Time Period:- 5 Year

Key Parameters						Return Consistency (% of times)				
Scheme / Category Name	Average	Median	Maximum	Minimum	Less than 0%	0 - 8%	8 - 12%	12 - 15%	15 - 20%	Greater than 20%
Local fund with global diversification	11.9	11.7	18.1	3.5	0	12.4	44.2	26.5	16.9	0
Equity: Multi Cap	5.4	4.4	13.2	-3.8	10.0	65.6	14.4	10.0	0	0

As on 3rd November 2020

At TBNG Capital, we believe data is a superpower. Our methodical research-driven investment approach has proven its success as seen in the case studies given above. As your investment advisors it is our responsibility to ensure you are invested in the best opportunities the market has to offer and hence our duty is to follow due-diligence in offering thoroughly-researched, right investment avenues to our investors.