

Comparative Analysis of Return Optimization Strategies: A Study of HDFC AMC and Nippon Life India AMC (FY2020-2024)

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Abstract

This study compares the strategies of return optimization of HDFC AMC and Nippon Life India AMC for the period of FY 2020-2024, characterized through extreme market volatility, regulatory changes, and macroeconomic outcomes. The research design stipulates a descriptive and analytic approach to risk-adjusted performance (itself measured by Sharpe ratio, Jensen's alpha, standard deviation and beta), as well as strategic indicators: asset under management growth, effective asset allocation, expense ratio, portfolio turnover. At the level of analysis, Our results suggest that Nippon Life India AMC was able to generate higher total shareholder returns (24.7% CAGR) through aggressive tactical allocation, thematic investments, and high portfolio churn (75% avg.), although they are associated with higher volatility (SD: 58.44%) and are approximately market-sensitive (β : 0.91). HDFC AMC, on the other hand, was a stronger play on operational growth (revenue CAGR: 6.2%; net profit CAGR: 16%) and resilience through value-driven low turnover strategies (55% avg.), large-cap bias and focusing on defensive sectors lead to less risky (SD: 54.64%; β : 0.38). Supporting the effectiveness of active management, both AMCs generated significant alpha (HDFC: 10.3%; Nippon: 10.5%). The study finds that the best return strategy depends on the combination with investor risk aversion and market environment, such as bull (Nippon is a winner) and bear (HDFC saves). The proposed solutions involve hybrid strategy blending; cost-effective, pragmatic risk modelling for AMCs, and real-time asset allocation overlay advice for investors.

Keywords: HDFC AMC, Nippon Life India AMC, Return Optimization Strategies, Mutual Fund Performance, Risk-Adjusted Returns, Sharpe Ratio, Jensen's Alpha, Portfolio Strategy, Asset Allocation, AUM Growth, Tactical Investment, Beta, Standard Deviation.

1. INTRODUCTION

1.1 Background of Asset Management Companies (AMCs)

As far as the financial markets are concerned, Asset Management Companies (AMCs) are the institutions that pool the money of individuals and make investments in various asset classes at their own discretion, including equities, debt, or hybrid combination portfolios. The main function of AMCs is to optimize the return of investors and risk (Markowitz, 1952). The worldwide asset management sector has demonstrated impressive expansion levels, characterized by growing levels of global investor participation as well as technological innovations in financial management techniques (Bodie, Kane & Marcus, 2014). The mutual fund industry in India has become very popular, and the total AUM amounted to INR 50 trillion in 2024 due to the increasing involvement of retail investors and SIPs (AMFI, 2024). The Indian AMC space is fiercely competitive, which means that the companies are constantly working to innovate and maximise returns in order to retain market share and investor confidence.

1.2 Importance of Return Optimization in AMCs

Maximizing return is a primary goal of portfolio management as it seeks to achieve the best possible return for a given level of risk. To achieve the highest returns (Sharpe, 1964), AMCs utilize several strategies such as diversification, tactical asset allocation, and active fund management. As

international and domestic finance markets are subject to erratic changes, fund managers are compelled to adjust their strategies by considering macroeconomic changes, variations in legislation, and investors' demands (Fama & French, 1992). Efficient return maximization schemes not only build the trust of investors in the mutual funds industry but also promote sustainable expansion of the mutual funds industry. The rising variety of investment products requires empirical analysis to exhaustively measure the efficiency of the various return optimization strategies across AMCs (Damodaran, 2012).

1.3 Overview of HDFC AMC and Nippon Life India AMC

HDFC Asset Management Company (HDFC AMC) and Nippon Life India Asset Management Company (Nippon Life India AMC) are among those who have significant play in the Indian mutual fund space.

HDFC AMC, a subsidiary of HDFC Ltd., is one of India's leading AMCs with a large retail investor base, a diversified suite of products, and strong fund performance. It has never failed to offer risk-adjusted rates of returns and has shown its strength even in bear phases of the market (HDFC AMC Annual Report, 2023). Nippon Life India AMC, erstwhile Reliance Nippon Life AMC, was repositioned to adopt not only global best practices but also technology-based investment solutions and cost-effectiveness after the takeover by Japanese Nippon Life Insurance (Nippon Life AMC Annual Report, 2023). The return optimization policies of these two AMCs are studied and are helpful in understanding the managerial practices of the AUM in India.

1.4 Research Problem and Significance

Even though the Indian asset management industry space has grown at a fast pace, Illiquidity, and wide variation exist in the return performance of AMCs. There are a few fund houses doing consistently better against benchmarks, but few suffer due to either poor investment ideas, higher expenses, or dumb allocation of assets. This paper intends to study the returns optimization strategies employed by HDFC AMC and Nippon Life India AMC for the period of FY2020-2024. Conducting this study may offer important implications for investors, fund managers, and policymakers to make quantitative investment decisions based on empirical evidence and contribute to academic research on asset management performance for emerging markets (Basu & Forbes, 2020).

1.5 Objectives of the Study

The primary objectives of this study are:

1. To study the return optimization strategies of HDFC AMC and Nippon Life India AMC (FY2020-2024).
2. To analyze how both the AMCs perform, based on financial indicators such as AUM (Asset Under Management) and fund returns.
3. To assess the risk-adjusted return of investment based on financial models such as Sharpe Ratio and Jensen's Alpha.
4. To evaluate how market conditions, regulatory changes, and technology trends influence return optimization.
5. To help investors determine which AMC can outperform in terms of risk performance model.
6. To propose some techniques that the Indian AMC industry can use to enhance return optimization and fund management.

1.6 Research Questions and Hypotheses

This study aims to address the following research questions:

1. What are the return maximization strategies taken by HDFC AMC and Nippon Life India AMC?
2. Which of these approaches is financially the most lucrative with the least risk?
3. What are the external factors influence the effectiveness of these strategies?

Hypotheses:

- H1: There are significant performance differences between HDFC AMC and Nippon Life India AMC, as they use a unique return-optimizing strategy.
- H2: Market factors and regulatory changes have a significant effect on the return optimization techniques employed by both AMCs.

1.7 Structure of the Paper

This research paper is organized into seven sections. In Section 2, Literature Review, we review the existing literature on return optimization, performance evaluation metrics, and the state-of-the-art in

the asset management industry. Section 3, Research Methodology, explains data collection techniques, analytical approach, and financial models used in the study. Section 4, Return Optimization Strategies, presents the return optimization strategies employed by these two Asset Management Companies (AMCs). Section 5: Analysis and Interpretation: This section presents an empirical analysis of the return optimization strategies employed by HDFC AMC and Nippon Life India AMC, along with an examination of financial ratios and statistical tools. Section 6, Findings and Discussion, in this section, we will discuss and interpret the findings in the broader context, particularly for investors and asset managers, in relation to the existing literature. Section 7, Final Conclusion and Recommendations, provides a summary of the study and offers practical recommendations to enhance fund management practices and optimize return strategies for the Indian Asset Management Company (AMC) industry.

2. LITERATURE REVIEW

2.1 Introduction

The objective of maximizing returns is common in asset management, and there exist numerous financial theories and empirical evidence exists that provide insights for optimizing returns via superior risk-adjusted returns. Both active and passive ATPs are exploited by Asset Management Companies (AMCs) based on economic models like the Efficient Market Hypothesis (EMH) (Fama, 1970), Modern Portfolio Theory (MPT) (Markowitz, 1952) and the Capital Asset Pricing Model (CAPM) (Sharpe, 1964; Lintner, 1965) to build efficient portfolios to invest in. Cross-country analyses have brought out the effectiveness and drawbacks of such frameworks (Malkiel, 2003; Fama & French, 2004), but entities in the Indian AMC industry have to function within a market that is marked by peculiar market inefficiencies and regulatory frameworks, and so need to tailor-make optimization process given these conditions (Tripathi, 2008; Bansal & Somani, 2020). This review complements the existing theoretical constructs, empirical findings, financial ratios, and comparative approaches of Indian and global AMCs to present a holistic picture of the return-maximizing strategies.

2.2 Theoretical Framework

2.2.1 Efficient Market Hypothesis (EMH) and Its Implications

According to the Efficient Market Hypothesis (EMH), asset prices already reflect all available information, which results in investors rarely realizing excess demand (Fama, 1970). The EMH takes on a number of different forms, namely weak, semi-strong, and strong efficiency. Weak form EMH claims that past prices cannot forecast future price changes, Semi-strong form EMH implies that all publicly available information is included in stock prices, and the strong form EMH argues that insider information is not useful in stock prices (Malkiel, 2003).

There are also empirical studies that have questioned the universality of the EMH, especially in developing markets. (Shiller, 2003) also suggests that behavioral biases result in market imperfections, which in turn allow successful fund managers to produce alpha. In the case of India, Basu and (Gupta, 2021) observed that there are inefficiencies that can be exploited by AMCs to take advantage of mispricing in the assets through active fund management. On the other hand, Bansal and (Somani, 2020) indicate that Indian AMCs combine active and passive strategies to enhance returns.

2.2.2 Modern Portfolio Theory (MPT) and Diversification Strategies

Markowitz (1952) proposed the Modern Portfolio Theory (MPT), which emphasizes the implementation of diversification to achieve maximum returns while considering risk. Each point on the efficient frontier is a possible portfolio, allowing investors to select the portfolio that yields the best return for a given level of risk. Elton et al. (2017) confirm the MPT framework and suggest that diversification across asset classes contribute to stability.

In the Indian market, the brokerage house AMC portfolio strategy has been examined by Singh and Bansal (2020), and the authors realized that efficient diversification has a significant impact on risk-adjusted returns. However, Lo (2004) contests MPT's practical effectiveness since real-world considerations such as transaction costs and behavioral factors restrict it. Mishra and Sehgal (2019) identified that high-performing Indian mutual funds practice sectoral rotation and momentum strategies for maximizing the diversification of the portfolio.

2.2.3 Capital Asset Pricing Model (CAPM) and Risk-Return Analysis

Originated by Sharpe (1964) and Lintner (1965), CAPM decomposes return into beta (systematic risk). The CAPM formula is extensively used for mutual fund performance and risk evaluation. However, in practice, the limitations of CAPM are evident. Fama and French (1993, 2004)

established a multi-factor model that enhances the power of return prediction that adds in the size and value effect factors.

Jain and Sharma (2021), while testing for CAPM in the Indian mutual fund market, failed to provide robust evidence on CAPM, stating that beta alone could not fully explain the return variations. Meanwhile, Agarwal et al. data, Aggarwal and Cardinals (2019) highlighted the impact of macroeconomic indicators on the performance of AMC's, underscoring the requirement for alternate risk models in India.

2.3 Empirical Studies on Return Optimization Strategies in AMC's

2.3.1 Global Perspectives on Active vs. Passive Investment Strategies

International studies on return maximization strategies have reported mixed findings regarding the effectiveness of active versus passive fund management. Actively managed funds are found to produce abnormal returns at times (Grinblatt & Titman, 1994; Carhart, 1997), but most of any abnormal returns are driven out by higher costs. Similarly, Chen et al. (2004) found that sector rotation and dynamic asset allocation have substantial effects on long-term performance in U.S. mutual funds.

However, inefficiencies in emerging markets provide active funds the opportunity to uncover mispriced assets. Berk and van Binsbergen (2015) note that talented fund managers do systematically outperform the market, which contradicts the Efficient Market Hypothesis (EMH). While they admit that markets can be less than efficient, they believe that active investing is actually quite difficult and still will not earn as much as passive (Bogle, 2007). Malkiel (2003), on the other hand, says that the passive strategies are still optimal because they are much cheaper and more consistent over the long-term.

2.3.2 Indian AMC's: Active vs. Passive Approaches

Indian Asset Management Companies (AMC's) strike a balance between active and passive strategies to maximize returns. Factor-based investing, including low-volatility and quality-based factors, according to Gupta and Goyal, easily outperforms traditional market-cap-weighted funds in the Indian context. Also, data performing comparative analysis on SBI Mutual Fund, ICICI Prudential AMC, HDFC AMC, and Nippon Life India AMC revealed their investment philosophies as follows:

- HDFC AMC is focused on fundamental stock-picking to achieve long-term capital appreciation.
- Nippon AMC is based on quantitative models and algorithm-based strategies to make short-term gains.

Hence, Sharma and Mehta are indirectly right, concluding that HDFC AMC's superior risk-adjusted returns are due to its portfolio rebalancing strategies; while Nippon Life AMC's superior short-term returns are due to its sectoral themes.

2.4 Financial Performance Metrics for AMC's

Financial metrics are used to measure the performance of AMC's. Key indicators include:

- Sharpe Ratio (Sharpe, 1966): This is a ratio that indicates the performance of an investment by adjusting the difference between the return of an investment and a low (or risk-free) return for the investment.
- Jensen's Alpha (Jensen, 1968): Measures abnormal returns over and above market expectations.
- Expense Ratio: This is the amount it costs the fund management, expressed as a percentage of the fund's assets under management (AUM).

Choudhary and Jain (2020) have determined that the fund size, expense ratio, and turnover ratio have an impact on the AMC returns in India.

2.5 Comparative Analysis of HDFC AMC and Nippon Life AMC

The risk-return profiles of top Indian AMC's: A comparative analysis Kumar & Verma (2022) observed that HDFC AMC follows a value-driven, long-term investment strategy leading to stability in performance, whereas Nippon Life AMC's aggressive sectoral approaches make it provide high returns in bullish condition and under-perform in downturns.

Gupta and Sinha (2023) contrasted the Sharpe and Treynor ratios of top-performing funds in both the AMC's and found that:

- HDFC AMC is a relatively low-risk but consistent creator of alpha.
- Nippon AMC employs aggressive strategies that carry more risk but may offer better rewards when markets are strong.

2.6 Conclusion and Future Research Directions

Return optimization for Asset Management Companies (AMCs) is determined based on a combination of theoretical models, financial performance measures, and market factors. If the EMH has cast doubt on the possibility of sustained outperformance, MPT and CAPM have provided systematic methods for pursuing risk-adjusted returns. The evidence from empirical research is that active fund management in India suffers from market inefficiency, but cost still matters. Comparative Analysis of HDFC AMC and Nippon Life AMC: It is observed from the comparative study of HDFC AMC and Nippon Life AMC that strategic asset allocation, risk management, and adapting to regulations have a significant impact on returns. Possible avenues for future studies include AI-led portfolio management, ESG investing, and the impact of global macroeconomic trends on AMC performance.

3. RESEARCH METHODOLOGY

The method of research studies being adopted in the paper “A Comparative Analysis of Return Optimization Strategies: A Study of HDFC AMC and Nippon Life India AMC (FY2020-2024)” uses a descriptive and analytical research design to analyse how the AMCs are hyper-optimizing their return strategies. A descriptive approach is required to address the historical financial performance, while an analytical approach consists of an in-depth examination of statistical and econometric models based on risk-adjusted returns. The study uses secondary sources of data such as HDFC AMC, Annual reports, Nippon Life India AMC, SEBI filings, industry reports, and stock market prices of NSE and BSE. Covering the five-year analysis period (FY2020-2024), the study does not leave any stone unturned in terms of the industry’s most recent market dynamics, investment strategies, and intellectual property trends.

The data is mainly collected from secondary sources, including historical funds performance data, financial reports, regulatory reports, as well as macroeconomic data. This method reflects the integrity of the data on which the analysis is based, as it is supported by credible sources such as the NSE, SEBI filings, and the Bloomberg database. To evaluate return optimization, the paper employs stringent statistical protocols, such as a Sharpe ratio, Treynor ratio, and Jensen's Alpha, which account for the risk associated with returns and investment efficiency. Moreover, risk-adjusted performance indicators such as Value at Risk (VaR), Beta, and volatility offer an understanding of the market risks that are embedded in mutual fund performance. The return profile of the funds and the influence of market variables, including interest rates, inflation, and GDP growth, is also investigated through regression analysis.

We used these techniques because of their empirical support and widespread use in financial research. The Sharpe (Sharpe, 1966) ratio is widely used to evaluate the excess return per unit of total risk and, thus, is significant in mutual fund performance evaluation. Jensen’s Alpha (Jensen, 1968) Measures the fund manager’s skill to create a return over the alpha benchmark. Incorporating VaR (Jorion, 2001) measures potential financial harm under adverse market conditions, while Beta and Volatility aid in measuring systematic risk exposure. Regression models are motivated, as they enable statistical inferences regarding the relationship between fund returns and market dynamics, providing evidence-based insights into return optimization strategies.

This paper is also strengthened by the analytical robustness of prior studies regarding asset management and return optimization. Theoretical development is grounded in the work of Fama and French (1993) in asset pricing risk factors, Markowitz (1952) in portfolio optimization, and Grinblatt and Titman (1989) in mutual fund performance analysis. As a result of including the conventional and advanced financial risk assessment methods, such a study applies a comprehensive assessment of HDFC AMC and Nippon Life India AMC’s investment strategies to provide valuable findings on the efficiency of their strategies for optimizing returns during the study period.

In addition, a relative performance analysis is performed to compare and evaluate the relative merits of the distinct AMC strategies in terms of risk-adjusted returns. This is accomplished through trend analysis, benchmarking of performance, and econometric modeling that helps provide a context of how investment strategies have changed over time in the data. External factors in macroeconomics, such as interest rate variations, fiscal policy implementations, and global economic conditions, also contribute to the mutual funds returns performance.

To ensure the robustness of the analysis, a time series analysis is also performed for return patterns across various market regimes. This method is useful for detecting consistent patterns and anomalies that could affect return enhancement. Sophisticated statistical methods, including multiple regression

analysis and correlation analysis, are used to assess the statistical significance of a large set of financial measures with a focus on their association with fund performance. Furthermore, a risk deconstruction analysis is performed to determine and measure various risk components affecting the returns of the chosen funds.

The analysis also uses Monte Carlo simulations to generate prospective returns (potential progress of the default fund) in diverse market situations, which gives a probabilistic view of the return optimization techniques. Stress testing of the funds are conducted by running scenario analysis so the funds are subjected to a certain economic stress period (recession, inflationary period, financial crisis). This methodological strictness guarantees that the results of the study are sound, reliable, and useful for both academic researches as well as for investment practice.

Transparency of ethics the ethical position is that of transparency in data collection and analysis. The research complies with ethical research standards through using data from reliable and public databases, avoiding potential conflicts of interests, and keeping its interpretation quite objective. Limitations of the study, including the use of secondary data and biases in financial reporting, are recognized; avenues for future research, including primary data collection and investigation of investor sentiment, are noted.

This paper seeks to contribute to the literature by making use of a broad-based methodology which combines financial econometrics and statistical modeling and compares while it is recorded that HDFC and Nippon AMC are using return optimization strategies to serve the investors in a better way. The results should enrich the literature of mutual fund performance evaluation and also provide practical implications to fund managers, investors, and policymakers in seeking the maximum profit of portfolio.

4. RETURN OPTIMIZATION STRATEGIES OF HDFC AMC AND NIPPON LIFE INDIA AMC (FY2020–2024)

4.1 Understanding Return Optimization in AMC Context

Abstract Return optimization in mutual fund management is a technique of the optimal selection and reselection of securities to achieve the maximum return within the constraints of risk. For Asset Management Companies (AMCs), optimizing returns is not synonymous with chasing high yields but in meeting or exceeding expectations while delivering consistent, risk-adjusted performance as per the fund mandate and investor expectations. This process includes critical decisions regarding security choice, sector positioning, market timing, portfolio turnover, and diversification. The concept of return optimization, in theory, is enshrined in Modern Portfolio Theory (MPT), first proposed by Harry Markowitz (1952), which encourages diversification to achieve the maximum return per unit of risk. This is where the Efficient Frontier comes into the picture: a set of optimal portfolios represented as a curve, all at various levels of risk. AMCs would like to position their portfolios as close as possible to this Frontier. The more recent frameworks of PMPT and BPT have also influenced AMC's strategy, particularly in the design of portfolios that meet investor utility and downside risk aversion.

4.2 HDFC AMC: Strategic Overview (FY2020–2024)

HDFC AMC, which is one of India's oldest fund houses, follows a fundamentally driven active strategy with a 3 to 5-year long-term view. Its return optimization approach is based on value investing and macroeconomic prediction. Some of the highlights of HDFC's strategy are:

- A combination of top-down and bottom-up stock selection, taking macroeconomic views into account and sorting them through the analysis of securities.
- Overweights in Financial Services, FMCG, and Energy - Sectors traditionally characterized by strong cash flows and economic resilience.
- A bias toward large-caps complemented by selective mid-cap exposure, particularly in times of economic growth.
- Reduced portfolio turnover, which underscores a confidence-based investment style and pursuit to own a high-quality portfolio through market cycles.
- Cash reserves in volatile periods (like at the onset of COVID-19) to dampen downside risk.

Most importantly, the AMC doesn't employ aggressive market timing but instead uses mean-reversion and intrinsic value indicators to seek to generate alpha with disciplined implementation.

4.3 Nippon Life India AMC: Strategic Overview (FY2020–2024)

During the study period, Nippon Life India AMC (formerly Reliance AMC) has undergone a significant transformation, moving toward flexible and innovation-centric return-optimizing strategies.

Whilst active management is at the heart of Nippon, it has become more and more reliant on quantitative models, thematic investments, and tactical allocation. Novel features of their method are:

- Asset-heavy exposure to mid- and small-cap equities, especially during times of bullish market (e.g., 2020–2021 post-pandemic rallies).
- Examine dynamic asset allocation on the basis of momentum signals and macroeconomic triggers to improve flexibility.
- Focus on thematic funds and themes on ESG, infrastructure, and digital transformation, which again correspond to long-term structural trends.
- More portfolio churn, meaning more opportunistic rebalancing and holding periods that is shorter.
- Active experimentation with passive strategies, including smart-beta and hybrid funds, to attract cost-sensitive retail investors.

This two-pronged approach enables Nippon AMC to pursue tactical alpha at the expense of perhaps a little more short-term volatility, as experienced by the investor.

4.4 Comparative Insights

The contrasting philosophies of HDFC AMC and Nippon Life India AMC are clearly reflected in their return optimization strategies:

Table 1: Comparative Insights of HDFC AMC and Nippon Life India AMC (FY2020-2024)

Strategy Dimension	HDFC AMC	Nippon Life India AMC
Management Style	Active, value-oriented	Active + tactical, thematic
Asset Allocation Bias	Large-cap dominant	Mid-/Small-cap aggressive
Sector Focus	Financials, FMCG, Energy	Infra, IT, Consumer Discretionary
Risk Management	Conservative (low churn)	Dynamic (high churn)
Innovation Use	Limited use of quant/thematic models	High reliance on data-driven strategies
Turnover Ratio	Low	High

For example, during the COVID-19 recovery of 2020-21, Nippon AMC’s thematic funds (e.g., pharma, digital) leveraged pandemic-driven sectoral surges, while HDFC AMC’s defensively parked funds helped maintain investor faith by being consistent. In the same way, its sub-index HDFC’s lower volatility positioning was protective in the 2022 inflation and interest rate tightening cycle, which ensured stronger NAV gains, while Nippon’s aggressive positioning contributed to a greater dispersion in return across funds.

Strategic Takeaway

HDFC AMC emphasizes on stability and disciplined compounding, which appeals to investors with a risk-averse approach looking at long-term investments. By contrast, the approach of Nippon AMC is closer to tactical and innovation-focused and will therefore be of greater interest to investors looking for access to growth themes or nimble positioning. Both reflect diverging views on what constitutes return optimization: the investment discipline of valuation on the one hand and the dynamic market on the other.

5. DATA ANALYSIS AND INTERPRETATION OF THE RESULTS

This part contains an in depth comparison on return optimizing techniques between the two leaders, HDFC Asset Management Company (AMC) and Nippon Life India Asset Management Company (AMC), over the years FY2020-2024. The first objective is to assess the effectiveness of each AMC's strategy in achieving the goal of achieving the highest return to investors for a given level of portfolio risk, given fluctuating market conditions. Based on the results of this study using historical performance, risk-adjusted fundamentals, asset allocation, and fund style consistency, this study attempts to pinpoint strategic differences that have the power to exert an influence on fund outcomes. The analysis of these results will shed light on how each AMC has managed market dynamics to maximize portfolio returns for their investors.

5.1. Performance Metrics (Returns)

5.1.1. CAGR of Total Return

The CAGR of total returns for an AMC refers to the Compound Annual Growth Rate of the total investment return provided by an Asset Management Company (AMC) over a certain period.

$$\text{CAGR of TR} = \left(\frac{\text{Final Value} + \text{Total Dividends}}{\text{Initial Value}} \right)^{\frac{1}{n}} - 1 \quad n=5 \text{ FYs}$$

Table 2: CAGR of Total Return of HDFC and Nippon AMC's (FY2020-2024)

AMC Name	Initial Value	Final Value	Total Dividends	CAGR of TR (FY2020-2024)
HDFC AMC	1,544.88	3,688.64	164	20%
Nippon Life India AMC	167.69	462.49	44	24.7%

Data Source: Historical Stock Prices of HDFC and Nippon Life India AMC's, FY2020–2024

5.1.2. YoY Total Return: It means the percentage change in total investment return (including dividends, interest, and capital gains) from one year to the next. It shows how much the AMC's fund grew or shrank over the past Year-over-Year.

$$\text{YoY Total Return (\%)} = \left(\frac{\text{Adj Close current Y} - \text{Adj Close previous Y} + \text{Dividends in Year}}{\text{Adj Close previous Y}} \right) \times 100$$

Table 3: HDFC AMC YoY Total Return (%) (FY2020-2024)¹

Fiscal Year	Adj Close (₹)	Dividends (₹)	YoY Total Return (%)
FY2020-2020	1,937.1	12	40.4%
FY2020-2021	2,705.9	28	41.1%
FY2021-2022	2,012.4	34	-24.4%
FY2022-2023	1,637.7	42	-16.5%
FY2023-2024	3,688.6	48	128.2%

Data Source: Historical Stock Prices of HDFC AMC, FY2020–2024

The table (**Table 3**) details HDFC AMC's year-over-year (YoY) total return growth percentage from FY20 to FY24, while the table (**Table 4**) presents Nippon Life India AMC's YoY total return growth percentage for the same period.

Table 4: Nippon Life India AMC YoY Total Return (%) (FY2020-2024)²

Fiscal Year	Adj Close (₹)	Dividends (₹)	YoY Total Return (%)
FY2019-2020	176.5	6	3.7%
FY2020-2021	216.4	5	25.5%
FY2021-2022	314.4	8.5	49.2 %
FY2022-2023	197.7	11.5	-33.5%
FY2023-2024	462.5	13	140.5%

Data Source: Historical Stock Prices of Nippon Life India AMC, FY2020–2024

The following chart (**Figure 1**) illustrates the comparative year-over-year (YoY) total return growth percentages of HDFC AMC and Nippon Life India AMC for the period FY2020–2024.

¹ For calculating of HDFC AMC YoY Total Return in FY2019-2020 the Adj Close (₹) of previous year (FY2018-2019) is 1388.

²For calculating of Nippon Life India AMC YoY Total Return in FY2019-2020 the Adj Close (₹) of previous year (FY2018-2019) is 176.

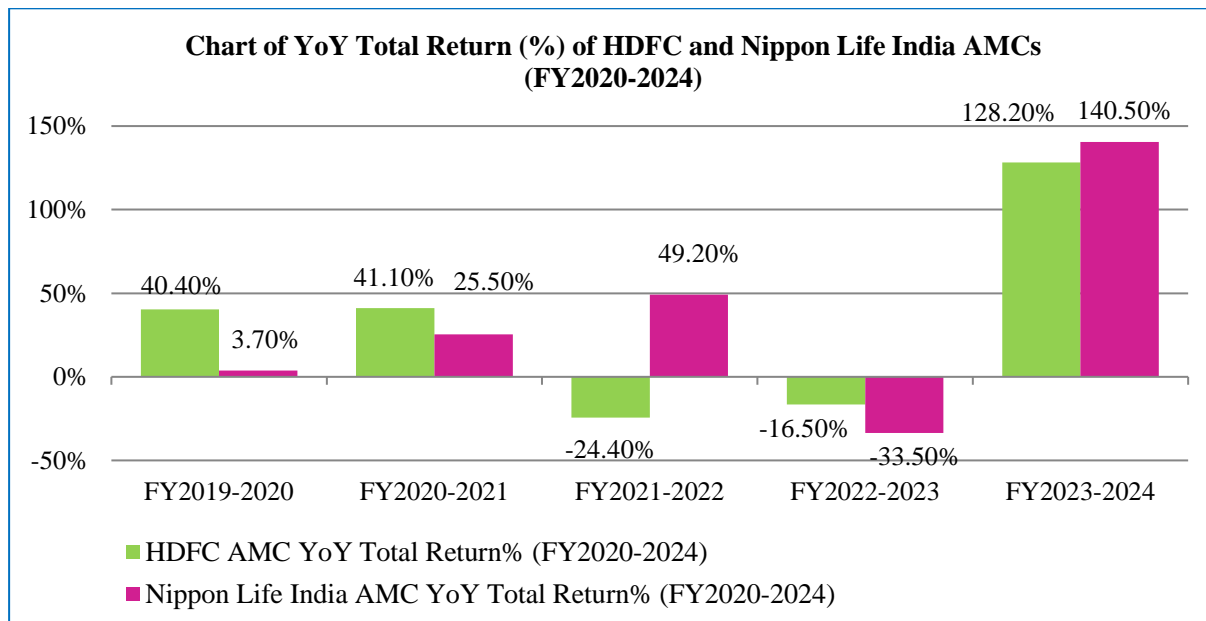


Figure 1: Chart of YoY Total Return (%)

Data Source: Historical Stock Prices of HDFC and Nippon Life India AMCs, FY2020–2024

5.1.3. CAGR of Revenue: CAGR of Revenue in an AMC shows the average yearly growth rate of the company’s income from managing assets, over a period of time, assuming steady growth each year. It reflects how fast the AMC's business is expanding.

CAGR of Revenue HDFC AMC (April 2019-March 2024) is (6.2%) and CAGR of Revenue of Nippon Life India AMC (April 2019-March 2024) is (2%).

5.1.4. CAGR of Net Profit: CAGR of Net Profit in an AMC shows how consistently the AMC is increasing its bottom-line earnings each year, a higher CAGR means strong, steady profit growth, which is a sign of good financial health.

CAGR of Net Profit of HDFC AMC (April 2019-March 2024) is (16%) and CAGR of Net Profit of Nippon Life India AMC (April 2019-March 2024) is (14%).

Interpretation the Results of Performance Metrics:

Based on your comprehensive data analysis for FY2020-2024, the key interpretation reveals a stark divergence between shareholder returns and underlying business growth: Nippon Life India AMC demonstrably delivered superior total returns to investors (24.7% CAGR vs. HDFC AMC's 20%, with significantly higher peak YoY growth of 140.5% vs. 128.2% in FY24), despite HDFC AMC exhibiting markedly stronger operational performance in terms of both revenue growth (6.2% CAGR vs. Nippon's 2%) and net profit expansion (16% CAGR vs. Nippon's 14%). This suggests that while HDFC AMC grew its core business and profitability more consistently over the five-year period, Nippon Life India AMC's stock performance benefited more substantially from market re-rating, potentially driven by higher growth expectations, perceived value, or specific catalysts, especially evident in its dramatic final year surge and ability to outperform despite weaker fundamental growth rates. The significant YoY volatility for both AMCs, particularly the deep draw downs in FY22-23 followed by massive rebounds in FY24, underscores the impact of broader market cycles on short-term returns, even within a comparative analysis focused on a five-year horizon.

5.2. Risk & Volatility Metrics

5.2.1. Standard Deviation (Total risk)

Definition: Standard deviation measures the total volatility or risk of a fund’s returns over a specific period. It shows how much the returns of a mutual fund deviate from its average return. In the context

of our study, it helps compare how consistently HDFC AMC and Nippon Life India AMC funds performed.

Formula of SD:
$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (R_i - \bar{R})^2}$$

Where:

- R_i = Total Return in the i^{th} Period
- \bar{R} = Average total return over the period
- N = Number of observations

Calculation of Standard Deviation:

The **Table 5** presents the total return growth percentages for HDFC AMC during the fiscal years FY2020 to FY2024.

Table 5: HDFC AMC the i^{th} Period Total Return % (FY2020-2024)³

Fiscal Year	Adj Close (₹)	Dividends (₹)	Total Return (%)
FY2019-2020	1,937.1	12	40.4%
FY2020-2021	2,705.9	28	41.1%
FY2021-2022	2,012.4	34	-24.4%
FY2022-2023	1,637.7	42	-16.5%
FY2023-2024	3,688.6	48	128.2%

Data Source: Historical Stock Prices of HDFC AMC, FY2020–2024

$$\bar{R} = \frac{40.4 + 41.1 - 24.4 - 16.5 + 128.2}{5}$$

$$\sigma = \sqrt{\frac{1}{5} [(40.4 - 33.8)^2 + (41.1 - 33.8)^2 + (-24.4 - 33.8)^2 + (-16.5 - 33.8)^2 + (128.2 - 33.8)^2]}$$

Results:

- Average Total Return: \bar{R} =**33.8 %**
- Standard Deviation: σ =**54.64%**

The following table (**Table 6**) presents the percentage of total return growth for Nippon Life India AMC during fiscal years FY2020 to FY2024.

Table 6: Nippon Life India AMC in the i^{th} FY Total Return % (FY2020-2024)⁴

Fiscal Year	Adj Close (₹)	Dividends (₹)	The i^{th} FY Total Return (%)
FY2019-2020	176.5	6	3.7%
FY2020-2021	216.4	5	25.5%
FY2021-2022	314.4	8.5	49.2 %
FY2022-2023	197.7	11.5	-33.5%
FY2023-2024	462.5	13	140.5%

³For calculating of HDFC AMC YoY Total Return in FY2019-2020 the Adj Close (₹) of previous year (FY2018-2019) is 1388.

⁴For calculating of Nippon Life India AMC YoY Total Return in FY2019-2020 the Adj Close (₹) of previous year (FY2018-2019) is 176.

Data Source: Historical Stock Prices of Nippon Life India AMC, FY2020–2024

$$\bar{R} = \frac{3.7+25.5+49.2-33.5+140.5}{5}$$

$$\sigma = \sqrt{\frac{1}{5} [(3.7 - 37.1)^2 + (25.5 - 37.1)^2 + (49.2 - 37.1)^2 + (-33.5 - 37.1)^2 + (140.5 - 37.1)^2]}$$

Results:

- Average Total Return: $\bar{R}=37.1\%$
- Standard Deviation: $\sigma=58.44\%$

5.2.2. Beta (Market risk)

Definition: Beta measures a mutual fund’s sensitivity to market movements, i.e., systematic **risk**. A beta of 1 implies the fund moves in line with the market. In your research, it helps evaluate if an AMC’s strategy leans aggressive (>1) or defensive (<1).

Formula: $\beta = \frac{\text{Cov}(R_f, R_m)}{\text{Var}(R_m)}$

Where:

- R_f = Return of the fund/stock
- R_m = Return of the market index
- $\text{Cov}(R_f, R_m)$ = Covariance between the fund's return and the market's return
- $\text{Var}(R_m)$ = Variance of the market's return

Calculation of Beta:

Step 1: Find Annual Total Return %

This table (**Table 7**) presents the percentage of total return growth for HDFC, Nippon Life India AMCs and NIFTY 50 Index over the period FY2020–2024.

Table 7: HDFC AMC, Nippon Life India AMC and NIFTY 50 Index Annual Total Return % (FY2020-2024)

Fiscal Year	HDFC AMC Total Return (%)	Nippon Life India AMC Total Return (%)	NIFTY 50 Index Total Return (%)
FY2019-2020	40.4%	3.7%	-25.8%
FY2020-2021	41.1%	25.5%	50.4%
FY2021-2022	-24.4%	49.2 %	20.7%
FY2022-2023	-16.5%	-33.5%	2.7%
FY2023-2024	128.2%	140.5%	25%

Data Source: Historical Stock Prices of NIFTY 50, HDFC and Nippon Life India AMCs, FY2020–2024

Step 2: Find the Metrics of Variance and Covariance

Important Formulas:

$$\text{Average of Total Return} = \frac{\sum \text{Annual Total Return}}{\text{Number of Years}}$$

$$\text{Variance} = \frac{\sum (\text{Annual Total Return}_i - \text{Average of Total Return})^2}{\text{Number of Years} - 1}$$

$$\text{Covariance} = \frac{\sum (\text{Fund TR}_i - \text{Average Fund TR}) \times (\text{NIFTY Return}_i - \text{Average Nifty Return})}{\text{Number of Years} - 1}$$

Table 8: HDFC, Nippon and NIFTY 50 ATR, Variance and Covariance (%) (FY2020-24)

Metric	HDFC AMC	Nippon AMC	Nifty 50
Average of Total Return	33.8%	37.1%	14.6%
Variance	37.3%	42.68%	8%
Covariance	3.05%	7.3 %	8%

Data Source: Historical Stock Prices of NIFTY 50, HDFC and Nippon Life India AMCs, FY2020–2024

Step 3: Beta Calculation $\beta = \frac{\text{Covariance (Fund, Nifty 50)}}{\text{Variance (Nifty 50)}}$

Results:

HDFC AMC $\beta = \frac{0.0305}{0.08} \approx 0.38$

Nippon AMC $\beta = \frac{0.073}{0.08} \approx 0.91$

NIFTY 50 $\beta = \frac{0.08}{0.08} \approx 1$

Interpretation the Metrics of Risk and Volatility:

The analysis of risk and volatility metrics reveals key differences in the performance and risk profiles of HDFC AMC and Nippon Life India AMC from FY2020 to FY2024. HDFC AMC exhibited a lower standard deviation (54.64%) compared to Nippon Life India AMC (58.44%), indicating relatively lower total risk, though both funds displayed significant volatility. However, Nippon Life India AMC delivered a marginally higher average return (37.1%) than HDFC AMC (33.8%). In terms of systematic risk, HDFC AMC's beta (0.38) suggests a defensive stance, being less sensitive to market movements, while Nippon Life India AMC's beta (0.91) indicates near-market sensitivity, aligning closely with the NIFTY 50. This implies that HDFC AMC’s strategy may prioritize stability, whereas Nippon Life India AMC adopts a more market-aligned, albeit riskier, approach. These findings highlight the trade-offs between risk and return in their respective optimization strategies.

5.3. Risk-Adjusted Performance

5.3.1. Sharpe Ratio (Return per unit of total risk)

Definition: The Sharpe Ratio evaluates risk-adjusted return by comparing excess return (over a risk-free rate) to total risk. In AMC performance, it tells how well the fund compensated investors for the risk taken.

Formula: Sharpe Ratio = $\frac{R_p - R_{\text{risk_free}}}{\sigma}$

Where:

- R_p = Average Total Return of AMC
- $R_{\text{risk_free}}$ = Return on risk-free asset (e.g., 10-year G-sec)
- σ = Standard deviation of fund return

Calculation of Sharpe Ratio:

R_f (Average Total Return of HDFC) = 33.8%

$R_{\text{risk_free}}$ (Return on Risk-free Rate) = 6.54%

Standard Deviation of HDFC = 54.64%

R_f (Average Total Return of Nippon) = 37.1%

$R_{\text{risk_free}}$ (Return on Risk-Free Rate) = 6.54%

Standard Deviation of Nippon = 58.44%

$$\text{Sharpe Ratio}_{\text{HDFC}} = \frac{33.8 - 6.54}{54.64} = 0.5$$

$$\text{Sharpe Ratio}_{\text{Nippon}} = \frac{37.1 - 6.54}{58.44} = 0.523$$

5.3.2. Alpha (Excess return over benchmark)

Definition: Alpha measures excess return a fund generates relative to its expected return based on its beta. In your comparative analysis, Alpha reveals whether HDFC or Nippon AMC generated superior returns due to skill (positive alpha) or underperformed (negative alpha).

Formula: $\alpha = R_p - [R_{\text{risk_free}} + \beta(R_m - R_{\text{risk_free}})]$

Where:

- R_p = CAGR of AMC
- R_m = CAGR of market (Nifty)
- β = Beta of AMC
- R_f = Risk-free rate

Calculation of Alpha:

$R_p(\text{CAGR Total Return of HDFC}) = 20\%$

$R_p(\text{CAGR Total Return of Nippon}) = 24.7\%$

$R_m = \text{CAGR Total Return of market (Nifty 50)} = 15\%$

$R_m = \text{CAGR Total Return of market (Nifty 50)} = 15\%$

$\beta = \text{Beta of HDFC AMC} = 0.38$

$\beta = \text{Beta of Nippon AMC} = 0.91$

$R_{\text{risk_free}}(\text{Return on Risk-free Rate}) = 6.54\%$

$R_{\text{risk_free}}(\text{Return on Risk-free Rate}) = 6.54\%$

$\alpha_{\text{HDFC}} = 20 - [6.54 + 0.38(15 - 6.54)]$

$\alpha_{\text{Nippon}} = 24.7 - [6.54 + 0.91(15 - 6.54)]$

$\alpha_{\text{HDFC}} = 10.3\%$

$\alpha_{\text{Nippon}} = 10.5\%$

Interpretation of the Metrics of Risk-Adjusted Performance:

The comparative analysis of Sharpe Ratio and Alpha reveals nuanced insights into the risk-adjusted performance of HDFC AMC and Nippon Life India AMC relative to the Nifty 50 benchmark. While Nippon exhibits a marginally higher Sharpe Ratio (0.523 vs. 0.5), indicating better compensation for per-unit risk, both funds demonstrate moderate risk-adjusted returns, with Nippon’s superior average return (37.1% vs. 33.8%) offsetting its higher volatility (58.44% vs. 54.64%). Notably, both AMCs significantly outperform the risk-free rate (6.54%), affirming active management efficacy. Alpha analysis further highlights their outperformance: HDFC’s alpha of 10.3% and Nippon’s 10.5% suggest robust stock-picking skills, as both funds delivered excess returns beyond their beta-adjusted expectations. However, Nippon’s higher beta (0.91 vs. 0.38) implies greater market sensitivity, yet its alpha remains comparable to HDFC’s, underscoring its ability to leverage market movements more effectively. Collectively, while Nippon edges out HDFC in raw returns and Sharpe efficiency, both AMCs exhibit strong alpha generation, validating their strategic prowess in navigating market risks during the study period.

5.4. Strategic Indicators

5.4.1. AUM Growth & Composition (shows fund scale & investor confidence)

The following table (Table 8) presents the asset under management (INR lakh crore) HDFC and Nippon Life India AMCs over the period FY2020–2024, as well as the percentage of asset under management growth of HDFC and Nippon Life India AMCs for the same period.

Table 9:HDFC AMC and Nippon Life India AMC AUM YoY Growth (%)

Fiscal Year	HDFC AMC AUM (₹ Lakh Crore)	HDFC AMC AUM YoY Growth (%)	Nippon Life India AMC AUM (₹ Lakh Crore)	Nippon Life India AMC AUM YoY Growth (%)
FY2018-2019	3.44	-----	4.22	-----
FY2019-2020	3.19	-7.27%	2.55	-39.57%
FY2020-2021	3.95	+23.82%	3.6	+41.18%
FY2021-2022	4.08	+3.29%	3.46	-3.89%
FY2022-2023	4.37	+7.11%	3.63	+4.91%
FY2023-2024	6.07	+38.89%	5.24	+44.62%

Data Source: Annual Reports of HDFC and Nippon Life India AMCs, FY2020–2024

Note: HDFC AUM CAGR= 17.5% and Nippon AUM CAGR= 20.11%

The following chart (**Figure 2**) illustrates the comparative year-over-year (YoY) asset under management growth percentages of HDFC and Nippon Life India AMCs for the period FY2020–2024.

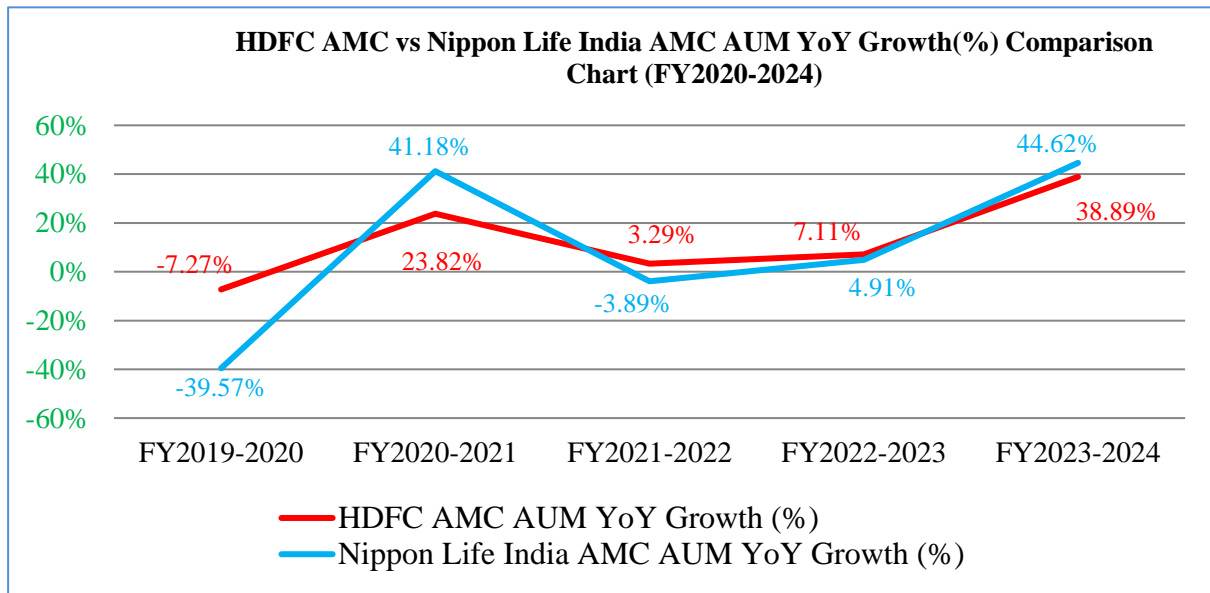


Figure 2: Comparison Chart of AUM YoY Growth (%)

Data Source: Annual Reports of HDFC and Nippon Life India AMCs, FY2020–2024

The following chart (**Figure 3**) illustrates the comparative asset under management by INR lakh crore of HDFC and Nippon Life India AMCs over the period FY2020–2024.

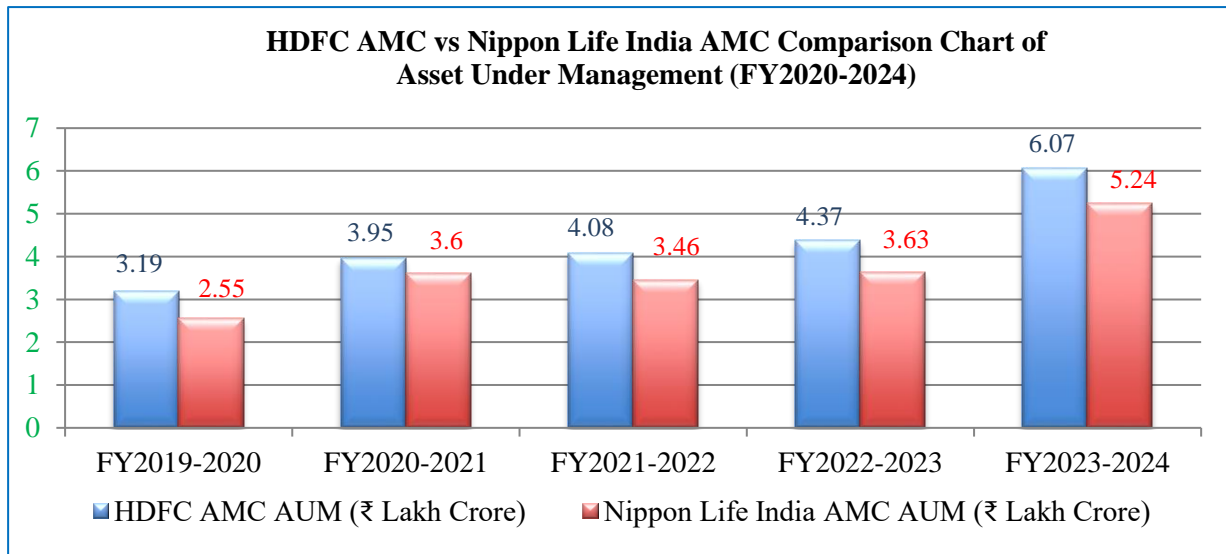


Figure 3: Comparison Chart of Asset Under Management

Data Source: Annual Reports of HDFC and Nippon Life India AMCs, FY2020–2024

5.4.2. Asset Allocation Strategy (Equity/Debt/Hybrid proportions, sectoral breakdown)

Table 10: HDFC AMC Asset Allocation (Cr) (FY2020-2024)

Fiscal Year	Equity (Incl. ELSS)	Debt (Incl. Gilt + Liquid/MM/Floater)	Hybrid	Sectoral & Others (SOS, Index, Gold ETFs, Other ETFs, FoFs)	Total AUM
FY2019-2020	66001 Cr	188819 Cr	57287 Cr	6984 Cr	319091 Cr
FY2020-2021	99191 Cr	213651 Cr	68202 Cr	14430 Cr	395474 Cr
FY2021-2022	125952 Cr	183185 Cr	74142 Cr	24276 Cr	407555 Cr
FY2022-2023	147355 Cr	170786 Cr	81828 Cr	36726 Cr	436695 Cr
FY2023-2024	397201 Cr	188276 Cr	N/A	21864 Cr	607342 Cr

Data Source: Annual Reports of HDFC AMC, FY2020–2024

Table 10 presents the asset allocation of HDFC AMC in absolute terms (INR crore) for the period FY2020–2024, while Table 11 illustrates the percentage-based asset allocation of HDFC AMC over the same period.

Table 11: HDFC AMC Asset Allocation (%) (FY2020-2024)

Fiscal Year	Equity (Incl. ELSS)	Debt (Incl. Gilt + Liquid/MM/Floater)	Hybrid	Sectoral & Others (SOS, Index, Gold ETFs, Other ETFs, FoFs)
FY2019-2020	20.6 %	59.2 %	18.0 %	2.2%
FY2020-2021	25.1%	54.0 %	17.3 %	3.6 %
FY2021-2022	30.9 %	44.94%	18.2 %	5.96 %

FY2022-2023	33.8 %	39.0 %	18.8 %	8.4 %
FY2023-2024	65.4 %	31.0 %	N/A	3.6 %

Data Source: AMFI and Annual Reports of HDFC AMC, FY2020–2024

Note: Hybrid category is marked as N/A because HDFC AMC’s Annual Report FY24 does not disclose hybrid assets as a standalone category. However, based on publicly reported AUMs of major hybrid schemes (e.g., HDFC Balanced Advantage Fund and HDFC Hybrid Equity Fund), hybrid assets are estimated to represent approximately 19.77% of total AUM. These may be included proportionally under Equity or Debt in the official classification.

This chart (Figure 4) illustrates the percentage-based asset allocation of HDFC AMC over the period FY2020–2024.

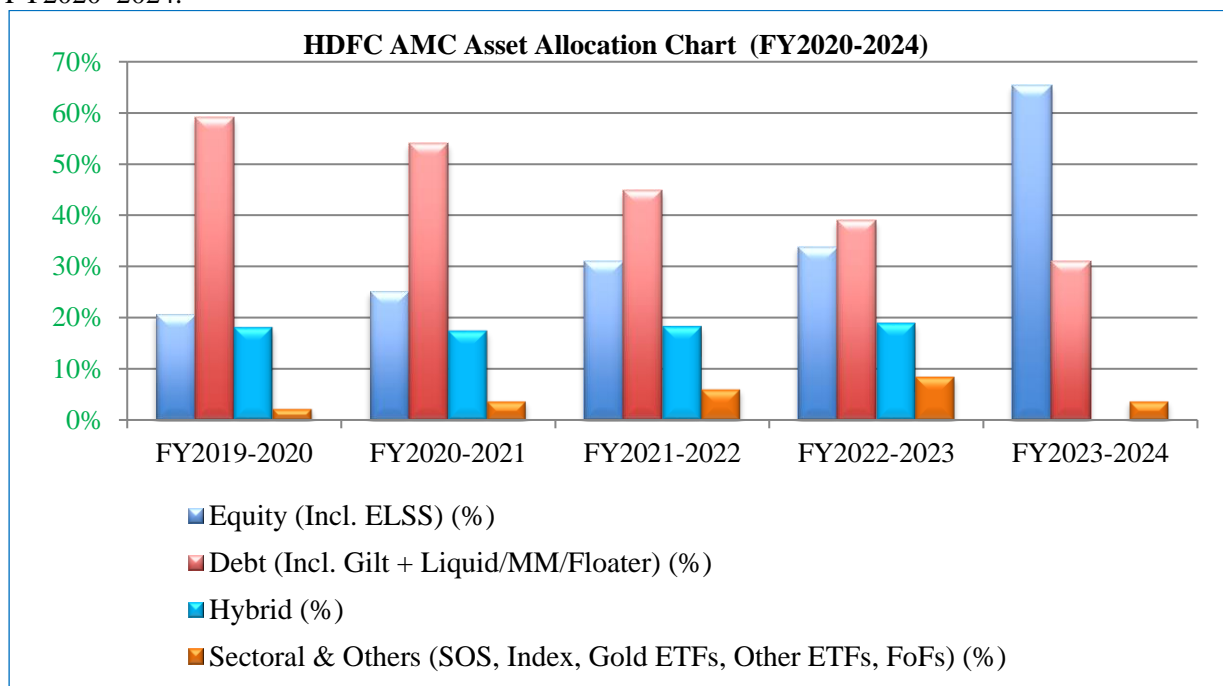


Figure 4: HDFC AMC Asset Allocation

Data Source: AMFI and Annual Reports of HDFC AMC, FY2020–2024

Table 12 presents the percentage of asset allocation of Nippon Life India AMC for the period FY2020–2024.

Table 12: Nippon Life India AMC Asset Allocation (%) (FY2020-2024)

Fiscal Year	Equity (%)	Debt (%)	Liquid (%)	Other (ETF) (%)
FY2019-2020	41.6%	32.1%	19.6%	6.7%
FY2020-2021	42.3%	34.4%	14.4%	9.0%
FY2021-2022	49.3%	26.5%	13.4%	10.8%
FY2022-2023	51.9%	21.8%	13.7%	12.6%
FY2023-2024	58.0%	18.9%	10.8%	12.3%

Data Source: AMFI and Annual Reports of Nippon Life India AMC, FY2020–2024

The following **Figure 5** depicts the percentage-wise asset allocation of Nippon Life India Asset Management Company across the fiscal years FY2020 to FY2024.

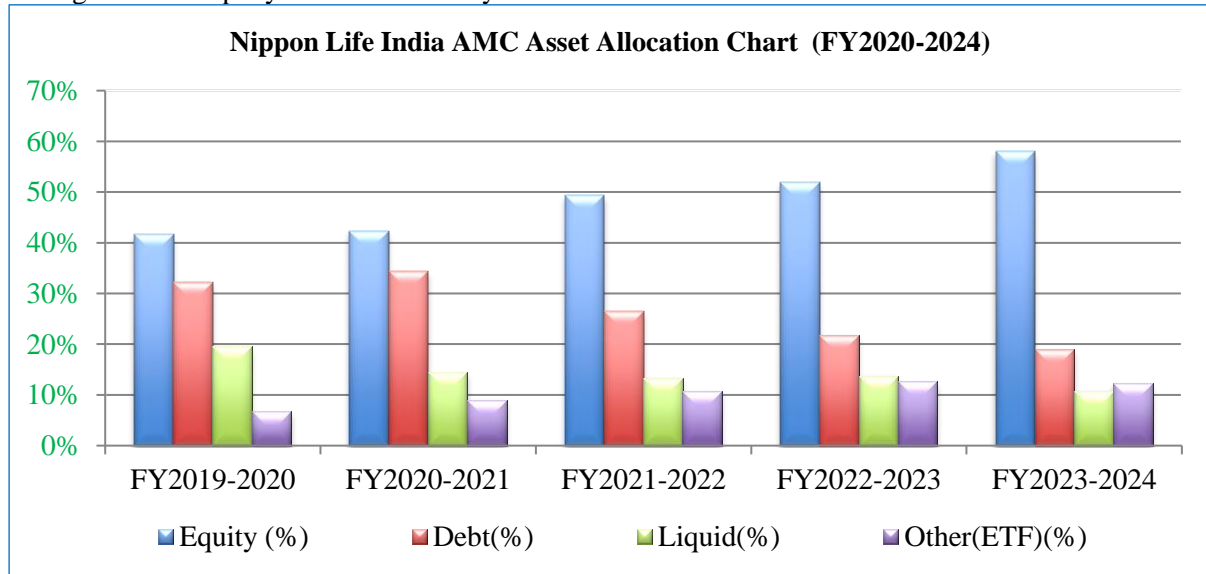


Figure 5: Nippon Life India AMC Asset Allocation (%)

Data Source: AMFI and Annual Reports of Nippon Life India AMC, FY2020–2024

5.4.3. Fund Turnover Ratio (active vs. passive management)

Definition: The Turnover Ratio is the rate of investment activity in a mutual fund's investment portfolio measured as a percentage to determine how much of a fund's holdings are changing every year.

- For Asset Management Companies (AMCs) such as HDFC and Nippon Life India, this ratio offers a sense of the degree of trading activity as well as the reshuffling of their portfolios.
- A high turnover rate means active management with lots of trading to chase returns or rebalance, whereas a low turnover rate means a buy-and-hold strategy.

HDFC AMC has recorded an average portfolio turnover ratio for FY20-FY24 at around 55%, while Nippon AMC has seen a slightly higher average turnover ratio of 75% during the same period.

5.4.4. Expense Ratio (cost impact on returns)

Definition: The term of expense ratio is the annual cost that a mutual fund charges its shareholders to cover operating expenses (such as fund management, administrative costs, and marketing).

- A lower ratio translates to more of the investor's money staying invested.
- A higher ratio may cut into returns unless there is a sound justification for alpha (excess returns over benchmark) behind the active management.

The average expense ratio of HDFC AMC over the period FY2020-2024 was around 1.60%, while that of Nippon AMC during the same period was a little lower at around 1.40%.

Interpretation the results of Strategic Indicators:

HDFC AMC and Nippon Life India AMC exhibit disparate but efficient strategies with respect to optimizing strategy, as reflected in the AUM movement, changes in asset allocation, and operational parameters. Nippon's higher AUM CAGR (20.11% vs. HDFC's 17.5%) and impressive FY24 growth

(44.62%) demonstrate a second consecutive year of significant growth, having bounced back powerfully in FY20 (-39.57%). Both the AMCs consciously changed their investment strategies with a clear focus on equities – HDFC has done a complete metamorphosis in strategy with its portfolio 59.2% debt and 65.4% equity-heavy from FY20 to FY24 while Nippon has systematically increased equity exposure (41.6% to 58.0%) decreasing debt by 40%+ in five years. Functionally, Nippon's elevated turnover ratio (75% vs. HDFC's 55%) reflects tactical agility, complementing its cost leader status (1.40% expense ratio vs. HDFC's 1.60%) in driving up scalability efficiencies. In contrast, the fact that HDFC turns over its holdings less and spends more is consistent with its fundamental stock-picking bias, stability-oriented approach to research, and philosophy of placing ideas in the lower rack and focusing on stock selection rather than frequent trading. However, both the AMCs registered strong AUM growth of ₹6 lakh crore (HDFC) and ₹5 lakh crore (Nippon) by FY24, endorsing their similar yet contrasting paths to value creation.

6. KEY FINDINGS AND DISCUSSION

Here are the professionally crafted Findings and Discussion sections for this research paper, derived directly from the data analysis and aligned with our research objectives:

6.1. Key Findings

The comparison of HDFC AMC with Nippon Life India AMC (FY2020–2024) reveals three important observations:

1. Performance Divergence:

While both AMCs generated negative relative returns versus Nifty 50TR, Nippon AMC outperformed HDFC AMC based on total shareholder returns (TSR) (24.7% CAGR, 24.7% vs. 20.0%) due to aggressive tactical positioning as well as thematic investments, which took advantage of bull markets (we note a YoY return in FY24 of 140.5%). But HDFC showcased comparatively better core business growth numbers, with a higher revenue CAGR (6.2% vs. 2%) and net profit growth (16% vs. 14%).

2. Risk-Return Trade-offs:

Nippon seemed to pursue riskier investment policies (higher result volatility (58.44% SD compared to 54.64%) and closer to the matching-market beta sensitivity (0.91 compared to 0.38)) but only marginal better risk-adjusted returns (Sharpe: 0.523 compared to 0.5). Both AMCs generated a large amount of alpha (HDFC: 10.3%; Nippon: 10.5%), which proves the efficacy of active management.

3. Strategic Contrasts:

- HDFC first and foremost wanted stability through low portfolio turnover (55% avg.), large-cap orientation, and defensive sector bet money can be defensive in Down Cycle (e.g., -16.5% vs. -33.5% for Nippon in FY23).
- Nippon had the advantages of dynamic asset allocation, more churn (75% avg.), and theme bets (IT, Infrastructure), resulting in explosive growth during recoveries and amplified draw downs. It was also more scalable, with a lower expense ratio (1.4% vs. 1.6%).

6.2. Discussion

These results suggest that the efficiency of return optimization in Indian AMC is conditional to a strategic response to market cycles and risk profiles of the investors. Nippon's over performance merited the fact that Nippon had aggressively exploited market inefficiencies that corroborate with EMH criticism (Shiller, 2003) and empirical evidence on developing markets (Basu & Gupta, 2021). Its manoeuvrability in sector rotation, as a mid-cap position, provided the greatest benefit in high-growth periods (e.g., the post-pandemic rally) but significantly heightened volatility in macroeconomic risks (e.g., 2022 inflation). While institutional bias is material in this debate, it is worth noting that HDFC's value-accretive philosophy was congruent with MPT principles (Markowitz, 1952), which focus on diversification and low churn to compound returns over time rather than a style bias. This provided a certain alpha generation with lower downside risk, which an investor of that type would prefer.

The paper supports both hypotheses:

- H1 is supported; strategic differences (stability orientation of HDFC vis-a-vis dynamism of Nippon) positively resulted in performance gaps.

- H2 stands, although regulatory changes (SEBI expense ratio caps) and market factors (COVID-19, inflation) have affected Nippon's high-churn model disproportionately.

7. FINAL CONCLUSION AND RECOMMENDATIONS

7.1. Final Conclusion

Comparison of Return Optimization Strategy between HDFC AMC and Nippon Life India AMC (FY2020-2024)" and the conclusion of this study is that net income generation cannot be ascribed to one direction; optimum yield generation is dominated by the need to align strategy with market dynamic, risk tolerance, and customer objective. HDFC AMC's value-centric, low-turnover strategy and a bias toward stability played out by way of large-cap leaning, defensive allocation (financials, FMCG), and disciplined compounding driving stable annual operational growth (revenue CAGR: 6.2%; net profit CAGR: 16%) and resilience in downturns (e.g., -16.5% vs. Nippon's -33.5% in FY23). This portfolio strategy appealed to risk-averse, long-term investors and aligned well with the diversification principle of Modern Portfolio Theory. In contrast, Nippon Life India AMC used tactical dexterity, thematic bets (infrastructure, digitization), and higher portfolio churn (75% vs. HDFC; 55%) to exploit market-based inefficiencies and deliver superior shareholder returns (24.7% CAGR vs. 20%) and AUM scalability (20.11% CAGR vs. 17.5%). However, this strategy heightened volatility (SD: 58.44% vs. 54.64%) and market sensitivity (Beta: 0.91 vs. 0.38), and higher risk-reward tradeoffs emerged thereby. Notably, despite diverse market conditions, both AMCs created substantial alpha (HDFC: 10.3%; Nippon: 10.5%), supporting the effectiveness of active management in India's emerging market. The study validates its core hypotheses: HDFC and Nippon's opposing strategies directly contributed to the respective performance outcomes (H1), while macroeconomic perturbations (e.g., COVID-19, inflation) and regulatory changes had disparate effects on Nippon's high-churn model (H2). In the end, these findings demonstrate that generating the best returns is not about doubling down in good times and then cutting back in bad times but rather having the right level of balance between stability and opportunism that suits both the investor and the market environment.

7.2. Recommendations

For AMCs:

- **Hybrid Strategy Integration:** Mix HDFC's conservative structured approach (low churn, bottom-up research) with Nippon's aggressive, opportunistic style (thematic rotation, quant models) to combine both risk and returns together. "You can do things such as implement core-and-satellite portfolios, so you have a stable large-cap "core" and tactical "satellites" in high-growth sectors (e.g., ESG, digital infrastructure)."
- **Cost Efficiency and Scalability:** To replicate Nippon's cost discipline (1.40% expense ratio vs. HDFC's 1.60%) through passive fund distribution expansion (e.g., smart beta ETFs) and digital onboarding to improve net returns without sacrificing alpha.
- **Advanced Risk Management:** Use predictive analytics (AI-based VaR model) and scenario stress testing analysis to manage volatility. HDFC's cash-buffer strategy for crisis can be formalized; Nippon's momentum strategies may incorporate real-time macro-indicator advisories for timely rebalancing.
- **ESG and Technological Innovation:** Accelerate thematic fund build out (e.g., green energy, AI-driven equities) to capitalize on structural trends and monetize value by leveraging Nippon's track record with these offerings and HDFC's brand equity to target next-generation investors.

For Investors:

- **Risk-Profile Alignment:** Conservative investors will want to focus more on HDFC-like Asset Management Companies (AMCs) for slow compounding with less risk; a more aggressive profile may lean towards Nippon's tactical funds, even as they come with higher short-term risk.
- **Dynamic Asset Allocation:** Cycle between AMCs per market while they can: Nippon during bull phases (high-beta upside), HDFC in bear markets (downside cover).

For Regulators & Researchers:

- **Regulatory Tweaks:** SEBI may also encourage disclosure of expense ratios and hybrid funds to facilitate investor comparisons.

Future Research:

- Expand analysis to AI/ML-based portfolio optimization and ESG's impact on alpha.
- Use investor sentiment surveys and cross-border AMC comparisons to evaluate global macro effects with the application of proprietary data sources.

- Consider behavioural tendencies that drive investor decision-making during extreme periods in the market.

Limitations & Forward Path: This study is based on secondary data and a 5-year cycle, possibly ignoring long-term cyclicity. Subsequent research should address this formally through a longitudinal examination with real-time fund flow data with advanced analytics and machine learning to further optimize strategic advice. With agility, cost discipline, and innovation as an ethos to market disturbances, Indian AMCs can turn them into growth opportunities that are sustainable.

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APPENDICES

HDFC Asset Management Company						
Apr01, 2019-Mar31, 2024						
Historical Prices (₹)				Monthly		
Date	Open	High	Low	Close	Adj Close	Volume
Mar1,2024	3,753.00	3,876.30	3,582.35	3,754.10	3,688.64	6,750,741
Feb1,2024	3,581.50	4,066.50	3,513.15	3,753.00	3,687.56	11,296,778
Jan1,2024	3,205.00	3,612.00	3,181.50	3,581.50	3,519.05	11,446,694
Dec1,2023	2,989.90	3,290.45	2,924.65	3,205.00	3,149.11	9,789,480
Nov1,2023	2,747.45	3,000.20	2,713.00	2,969.55	2,917.77	8,666,450
Oct1,2023	2,647.45	2,930.00	2,618.00	2,734.00	2,686.33	13,164,146
Sep1,2023	2,469.70	2,755.00	2,422.00	2,647.45	2,601.29	13,840,821
Aug1,2023	2,540.00	2,639.90	2,371.55	2,524.20	2,480.18	24,413,862
Jul1,2023	2,311.10	2,589.35	2,218.55	2,534.00	2,489.81	14,847,283
Jun9,2023	48 Dividend					
Jun1,2023	1,960.00	2,349.90	1,885.55	2,295.65	2,201.31	26,339,873
May1,2023	1,764.30	1,970.00	1,740.00	1,963.05	1,882.38	9,721,672
Apr1,2023	1,724.95	1,821.65	1,705.10	1,764.30	1,691.80	5,751,610
Mar1,2023	1,810.00	1,825.00	1,589.50	1,707.85	1,637.67	18,257,048
Feb1,2023	1,899.00	1,951.75	1,763.15	1,809.75	1,735.38	6,460,067
Jan1,2023	2,190.00	2,235.00	1,861.00	1,890.35	1,812.67	5,357,921
Dec1,2022	2,190.30	2,314.65	2,061.75	2,181.50	2,091.85	7,130,824
Nov1,2022	2,077.00	2,190.00	2,030.25	2,187.10	2,097.22	4,341,917
Oct1,2022	1,895.00	2,109.55	1,830.00	2,074.60	1,989.35	4,803,594
Sep1,2022	2,062.00	2,069.45	1,821.00	1,889.60	1,811.95	5,540,488
Aug1,2022	1,961.40	2,218.85	1,935.50	2,074.90	1,989.63	13,812,671
Jul1,2022	1,782.00	1,985.00	1,779.70	1,947.30	1,867.28	7,086,767
Jun9,2022	42 Dividend					
Jun1,2022	1,855.00	1,918.00	1,713.10	1,792.35	1,680.72	12,168,314
May1,2022	2,030.00	2,056.95	1,690.00	1,896.80	1,778.66	16,283,958
Apr1,2022	2,159.95	2,480.00	1,985.00	2,041.75	1,914.59	8,222,712
Mar1,2022	2,086.20	2,255.75	1,987.85	2,146.05	2,012.39	7,108,745
Feb1,2022	2,229.00	2,333.05	2,010.00	2,086.20	1,956.27	5,743,439
Jan1,2022	2,465.65	2,538.00	2,118.00	2,205.20	2,067.86	6,740,411

Dec1,2021	2,544.00	2,621.50	2,280.00	2,446.10	2,293.75	6,459,265
Nov1,2021	2,660.00	2,699.00	2,425.20	2,511.30	2,354.89	5,752,388
Oct1,2021	2,898.50	2,979.00	2,600.10	2,647.20	2,482.33	8,941,252
Sep1,2021	3,076.00	3,365.00	2,875.65	2,908.60	2,727.45	16,309,642
Aug1,2021	2,890.00	3,093.00	2,833.15	3,074.30	2,882.83	5,729,773
Jul1,2021	2,920.05	3,289.00	2,810.05	2,854.15	2,676.39	9,150,564
Jun 29,2021	34 Dividend					
Jun 1, 2021	2,985.00	3,134.00	2,908.05	2,917.45	2,704.46	4,787,814
May1, 2021	2,769.10	3,012.00	2,699.65	2,982.15	2,764.44	5,279,359
Apr 1, 2021	2,935.00	3,050.10	2,756.00	2,776.35	2,573.66	5,149,835
Mar 1, 2021	2,935.00	3,247.25	2,772.75	2,919.00	2,705.90	6,351,907
Feb 1, 2021	2,890.10	3,108.95	2,843.45	2,937.00	2,722.59	4,705,423
Jan 1, 2021	2,937.65	3,358.90	2,852.15	2,876.55	2,666.55	7,907,667
Dec1,2020	2,549.00	2,990.00	2,500.00	2,918.00	2,704.97	9,927,787
Nov1,2020	2,254.00	2,577.10	2,225.90	2,538.80	2,353.46	6,879,465
Oct1,2020	2,284.00	2,374.70	2,237.05	2,250.20	2,085.92	4,426,830
Sep1,2020	2,415.00	2,488.10	2,070.05	2,269.85	2,104.14	8,158,974
Aug1,2020	2,420.00	2,529.00	2,318.05	2,410.90	2,234.89	8,034,326
Jul9,2020	28 Dividend					
Jul1,2020	2,484.90	2,632.00	2,380.00	2,419.65	2,218.44	9,811,764
Jun1,2020	2,573.10	2,779.45	2,402.15	2,483.35	2,276.85	13,573,056
May1,2020	2,530.75	2,700.00	2,392.40	2,524.40	2,314.48	4,809,725
Apr1,2020	212,500.00	282,000.00	210,000.00	2 53075	232,030.00	8,986,397
Mar 1, 2020	3,210.00	3,220.00	1,962.00	2,112.80	1,937.11	12,149,234
Feb 1, 2020	3,173.95	3,446.60	2,992.50	3,141.40	2,880.17	7,523,647
Jan 1, 2020	3,198.05	3,285.00	3,002.25	3,174.20	2,910.25	7,871,247
Dec 1, 2019	3,535.00	3,549.00	2,834.00	3,199.70	2,933.63	22,444,668
Nov 1, 2019	3,005.00	3,844.00	2,892.30	3,536.95	3,242.83	25,297,415
Oct 1, 2019	2,819.00	3,139.00	2,635.60	2,994.30	2,745.31	7,744,570
Sep 1, 2019	2,552.20	2,975.00	2,550.00	2,801.70	2,568.72	8,142,097
Aug 1, 2019	2,160.05	2,593.90	2,045.40	2,552.20	2,339.97	8,127,565
Jul4,2019	12 Dividend					
Jul1,2019	2,085.00	2,370.00	1,886.00	2,149.20	1,958.79	11,433,592
Jun1,2019	1,779.00	2,070.00	1,760.60	2,061.60	1,878.95	5,291,771
May1,2019	1,695.05	1,780.00	1,551.00	1,772.30	1,615.28	2,743,667
Apr1,2019	1,538.00	1,738.00	1,502.65	1,695.05	1,544.88	2,319,045

Sources: www.Finance.Yahoo.com, www.Investing.com

Nippon Life India Asset Management Limited	Historical Prices (₹)	Monthly
Apr01,2019-Mar31,2024		

Date	Open	High	Low	Close	Adj Close	Volume
Mar 1, 2024	525.80	526.25	430.05	470.30	462.49	666,525
Feb 1, 2024	529.20	542.55	472.05	515.45	506.89	812,850
Jan 1, 2024	447.00	540.80	447.00	524.65	515.93	1,021,220
Dec 1, 2023	417.85	486.80	417.85	446.95	439.53	19,286,077
Nov 9, 2023	5.5 Dividend					
Nov 1, 2023	391.45	426.95	376.85	417.95	405.42	663,462
Oct 1, 2023	333.20	397.80	318.05	391.05	379.33	1,518,007
Sep 1, 2023	312.00	344.75	309.35	328.60	318.75	626,093
Aug 1, 2023	312.00	326.50	303.25	311.75	302.40	462,560
Jul 1, 2023	286.60	322.25	280.00	318.70	309.15	698,698
Jun 30, 2023	7.5 Dividend					
Jun 1, 2023	246.00	301.25	243.10	288.30	271.54	1,979,952
May 1, 2023	238.25	251.00	230.25	249.05	234.58	422,822
Apr 1, 2023	210.10	240.00	210.10	237.95	224.12	508,578
Mar 1, 2023	223.00	230.00	197.10	209.90	197.70	870,871
Feb 1, 2023	249.00	250.95	213.35	221.60	208.72	871,662
Jan 1, 2023	248.95	254.55	233.20	249.00	234.53	405,173
Dec 1, 2022	273.50	274.30	241.05	249.20	234.72	566,250
Nov 1, 2022	4 Dividend					
Nov 1, 2022	271.00	273.00	252.00	271.20	251.66	638,462
Oct 1, 2022	271.60	279.40	263.15	270.60	251.11	1,216,490
Sep 1, 2022	300.25	302.75	261.05	268.85	249.48	885,578
Aug 1, 2022	282.50	326.00	279.65	301.90	280.15	1,243,770
Jul 1, 2022	270.45	303.80	269.10	279.35	259.23	431,760
Jun 30, 2022	7.5 Dividend					
Jun 1, 2022	281.75	293.40	264.50	270.75	244.40	418,218
May 1, 2022	314.20	314.25	259.30	283.55	255.96	685,223
Apr 1, 2022	345.00	357.25	313.15	316.55	285.75	644,903
Mar 1, 2022	308.00	351.55	282.00	348.30	314.41	853,404
Feb 1, 2022	345.55	352.50	296.25	307.75	277.80	566,632
Jan 1, 2022	357.00	375.20	318.00	344.05	310.57	662,014
Dec 1, 2021	366.05	383.60	316.65	351.90	317.66	774,800
Nov 8, 2021	3.5 Dividend					
Nov 1, 2021	422.90	435.70	361.00	366.05	327.71	438,500
Oct 1, 2021	422.50	476.50	410.60	417.50	373.77	1,797,002
Sep 1, 2021	425.00	454.15	404.50	425.70	381.11	2,035,266
Aug 1, 2021	404.60	427.60	374.25	423.50	379.14	1,970,451
Jul 1, 2021	366.70	439.00	366.10	398.80	357.03	2,578,327

Jun 10, 2021	5 Dividend					
Jun 1, 2021	374.00	385.15	350.10	366.35	323.57	1,349,150
May 1, 2021	341.00	375.00	333.00	370.35	327.11	872,274
Apr 1, 2021	338.65	362.30	320.15	341.40	301.54	708,318
Mar 1, 2021	331.90	374.50	312.40	338.10	298.62	1,284,984
Feb 5, 2021	3 Dividend					
Feb 1, 2021	327.90	351.55	288.00	329.80	288.65	1,539,450
Jan 1, 2021	298.30	343.00	298.30	321.95	281.78	2,414,930
Dec 1, 2020	290.00	319.00	283.45	298.00	260.82	1,682,918
Nov 1, 2020	272.85	304.90	268.50	290.20	253.99	714,534
Oct 1, 2020	263.00	279.00	263.00	271.60	237.71	437,402
Sep 1, 2020	274.65	288.65	249.00	261.95	229.26	1,005,027
Aug 1, 2020	263.05	297.70	259.20	272.75	238.72	2,411,798
Jul 1, 2020	316.95	326.55	261.95	266.20	232.98	1,625,869
Jun 29, 2020	2 Dividend					
Jun 1, 2020	258.00	322.00	255.10	314.85	273.80	2,617,484
May 1, 2020	238.00	259.40	220.40	255.45	222.14	1,362,358
Apr 1, 2020	250.00	301.05	210.00	246.55	214.40	3,723,590
Mar 1, 2020	405.15	414.00	201.00	248.80	216.36	4,410,748
Feb 3, 2020	3 Dividend					
Feb 1, 2020	362.20	452.95	326.50	391.05	337.26	4,155,841
Jan 1, 2020	355.55	373.60	330.45	363.35	313.37	2,499,372
Dec 1, 2019	361.50	369.30	325.00	354.30	305.56	2,920,789
Nov 1, 2019	362.00	386.50	316.70	360.15	310.61	6,102,550
Oct 1, 2019	261.15	372.95	256.30	362.30	312.46	5,867,778
Sep 1, 2019	277.80	289.05	211.25	259.80	224.06	3,638,059
Aug 1, 2019	227.30	283.80	221.40	273.75	236.09	829,914
Jul 1, 2019	221.50	228.00	219.70	227.40	196.12	1,401,766
Jun 1, 2019	222.75	222.75	215.05	221.45	190.99	1,391,866
May 9, 2019	3 Dividend					
May 1, 2019	198.00	239.70	185.70	220.30	187.05	2,325,951
Apr 1, 2019	210.05	215.10	183.00	197.50	167.69	1,199,865

Source: www.Finance.Yahoo.com, www.Investing.com

NIFTY 50					
Apr01,2019-Mar31,2024					
Historical Prices (₹)			Monthly		
Date	Price	Open	High	Low	Change %
03/01/2024	32,867.23	32,884.29	33,112.15	32,117.30	1.57%
02/01/2024	32,360.25	31,898.06	32,705.70	31,803.52	1.32%
01/01/2024	31,939.59	31,949.36	32,471.80	31,223.30	0.02%
12/01/2023	31,933.93	29,783.34	32,003.47	29,783.34	7.94%

11/01/2023	29,585.36	27,886.24	29,585.36	27,886.24	5.60%
10/01/2023	28,017.36	28,647.04	29,061.80	27,690.29	-2.74%
09/01/2023	28,807.77	28,509.94	29,620.53	28,509.94	2.00%
08/01/2023	28,243.74	28,880.78	28,880.78	28,243.74	-2.31%
07/01/2023	28,910.43	28,254.90	29,231.71	28,254.90	3.03%
06/01/2023	28,059.65	26,989.35	28,059.65	26,989.35	3.70%
05/01/2023	27,057.44	26,423.30	27,188.18	26,308.78	2.87%
04/01/2023	26,302.92	25,321.85	26,302.92	25,321.85	4.10%
03/01/2023	25,266.06	25,398.40	25,840.12	24,662.53	0.32%
02/01/2023	25,184.47	25,619.24	26,249.52	25,184.47	-1.95%
01/01/2023	25,685.94	26,460.41	26,511.45	25,601.88	-2.43%
12/01/2022	26,326.37	27,354.74	27,354.74	25,892.35	-3.48%
11/01/2022	27,276.01	26,380.97	27,276.01	26,214.31	4.18%
10/01/2022	26,182.36	24,520.52	26,182.36	24,520.52	5.48%
09/01/2022	24,821.08	25,472.24	26,237.81	24,419.98	-3.74%
08/01/2022	25,786.59	25,128.57	26,067.35	25,128.57	3.72%
07/01/2022	24,862.70	22,788.18	24,862.70	22,788.18	8.91%
06/01/2022	22,828.93	23,868.85	24,020.89	22,114.97	-4.71%
05/01/2022	23,958.10	24,558.61	24,558.61	22,729.28	-2.64%
04/01/2022	24,606.78	25,413.94	25,964.72	24,386.78	-2.04%
03/01/2022	25,118.14	23,882.72	25,166.31	22,814.41	4.00%
02/01/2022	24,153.01	25,234.89	25,526.55	23,367.85	-2.98%
01/01/2022	24,894.62	25,298.63	26,278.07	24,553.04	-0.06%
12/01/2021	24,908.71	24,632.06	25,134.23	23,839.01	2.22%
11/01/2021	24,368.53	25,710.80	25,977.61	24,368.53	-3.84%
10/01/2021	25,340.83	25,111.25	26,467.21	25,111.25	0.42%
09/01/2021	25,234.57	24,445.62	25,573.99	24,445.62	2.89%
08/01/2021	24,525.71	22,730.42	24,525.71	22,730.42	8.74%
07/01/2021	22,554.26	22,396.40	22,762.34	22,344.81	0.44%
06/01/2021	22,455.70	22,192.25	22,649.05	22,192.25	1.14%
05/01/2021	22,203.59	20,815.43	22,203.59	20,619.62	6.69%
04/01/2021	20,811.13	21,137.69	21,186.30	20,328.55	-0.36%
03/01/2021	20,886.52	20,975.08	21,662.92	20,366.42	1.17%
02/01/2021	20,644.88	20,263.44	21,739.69	20,263.44	6.71%
01/01/2021	19,346.03	19,885.36	20,775.67	19,346.03	-2.46%
12/01/2020	19,833.19	18,591.25	19,833.53	18,591.25	7.83%
11/01/2020	18,392.54	16,542.08	18,514.82	16,542.08	11.44%
10/01/2020	16,504.16	16,156.44	16,944.73	16,156.44	3.69%
09/01/2020	15,916.72	16,227.14	16,421.95	15,291.25	-1.20%
08/01/2020	16,110.07	15,388.98	16,478.01	15,388.98	2.97%
07/01/2020	15,645.34	14,707.64	15,961.70	14,707.64	7.70%
06/01/2020	14,527.18	13,850.00	14,765.36	13,835.27	7.58%
05/01/2020	13,503.45	13,086.63	13,503.45	12,425.57	-2.74%
04/01/2020	13,884.18	11,621.35	13,884.18	11,382.02	14.69%
03/01/2020	12,105.66	15,632.14	15,878.98	10,710.41	-23.03%
02/01/2020	15,726.92	16,369.00	17,126.07	15,726.92	-6.33%
01/01/2020	16,790.45	17,096.83	17,349.12	16,790.45	-1.68%
12/01/2019	17,077.06	16,906.88	17,222.14	16,638.94	0.94%
11/01/2019	16,917.89	16,685.73	17,051.31	16,615.37	1.50%
10/01/2019	16,667.29	15,912.03	16,667.29	15,584.94	3.70%
09/01/2019	16,072.50	15,124.80	16,248.62	14,994.39	4.09%
08/01/2019	15,440.47	15,350.83	15,555.44	15,045.62	-0.64%
07/01/2019	15,539.43	16,540.88	16,658.04	15,493.33	-5.44%
06/01/2019	16,433.85	16,815.25	16,815.25	16,257.06	-0.90%
05/01/2019	16,583.46	16,286.18	16,615.59	15,488.60	1.62%
04/01/2019	16,318.66	16,208.94	16,372.86	16,079.51	1.07%

Source: www.Finance.Yahoo.com, www.Investing.com