

Evolution and Expansion of the Exchange-Traded Fund Market in India: An Analysis.

Dr Deepti Sahoo¹, Dr D Mallikarjuna Reddy², Dr. Siva Surendra. Nandam³, Dr.Karlapudi Ramesh Babu⁴, Dr S. Venkata Ramana⁵

¹Assistant Professor, Department of Economics, Rajiv Gandhi University of Knowledge and Technology (RGUKT), Nuzvidu

²Associate Professor, Department of Mathematics and Statistics, School of Science, GITAM Hyderabad 502329

³Assistant Professor, Department of Business Administration, Prasad V. Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada, Andhra Pradesh, India – 520 007

⁴PGT-Commerce, AP PM SHRI Model School & Jr. College, Krosuru (V) & (M), Palnadu District, Andhra Pradesh. PIN: 522410, INDIA

⁵Assoc. Professor, KL Business School, Koneru Lakshmaiah Education Foundation, KL (Deemed to be University), Green Fields, Vaddeswaram, A.P. – 522302

Cite This Paper as: Dr Deepti Sahoo, Dr D Mallikarjuna Reddy, Dr. Siva Surendra. Nandam, Dr.Karlapudi Ramesh Babu, Dr S. Venkata Ramana (2026) Evolution and Expansion of the Exchange-Traded Fund Market in India: An Analysis...The Journal of African Development 1, Vol.7, No.1, 1250-1263

KEYWORDS

Exchange-Traded Funds (ETFs), Passive Investing, Mutual Funds, Index Funds, Assets under Management (AUM), Capital Market, SEBI, India

ABSTRACT

The Exchange-Traded Fund (ETF) market has emerged as one of the fastest-growing segments of the Indian financial system, driven by the increasing preference for passive investment strategies, regulatory support, technological advancements, and growing investor awareness. This study examines the evolution and expansion of the Exchange-Traded Fund market in India by analyzing its historical development, growth patterns, market composition, and the key factors influencing its rapid adoption. The study highlights the transition of the Indian ETF industry from a market initially dominated by Gold ETFs to one where Equity ETFs account for the largest share of assets under management. Using secondary data collected from industry reports, the Association of Mutual Funds in India (AMFI), the Securities and Exchange Board of India (SEBI), and other published sources, the study evaluates trends in assets under management, the number of ETF schemes, investor participation, and trading activity over time. It also identifies the major drivers of market expansion, including government disinvestment initiatives, increasing institutional participation, lower expense ratios, transparency, liquidity, and the growing acceptance of passive investment products. Further, the study discusses the challenges hindering broader ETF adoption, such as limited retail investor awareness, liquidity concerns in certain ETF categories, and market concentration. The analysis emphasizes the significant role of SEBI and other market participants in strengthening the ETF ecosystem through regulatory reforms, investor education, and product innovation. The findings suggest that the Indian ETF market possesses substantial growth potential and is expected to play an increasingly important role in the country's investment landscape as passive investing continues to gain momentum.....

1. INTRODUCTION

The global investment landscape has undergone a significant transformation over the past two decades, with passive investment strategies emerging as a preferred choice among institutional and retail investors. Investment management is broadly classified into active and passive investing. Active investing seeks to outperform market benchmarks through security selection and market timing, whereas passive investing aims to replicate the performance of a benchmark index by investing in a portfolio that mirrors the composition of the underlying index. The growing acceptance of passive investing is supported by the Efficient Market Hypothesis (EMH) proposed by Fama (1970), which suggests that financial markets efficiently incorporate available information, making it difficult for active fund managers to consistently generate superior risk-adjusted returns. Consequently, passive investment products, particularly Exchange-Traded Funds (ETFs), have witnessed remarkable growth across global financial markets. Exchange-Traded Funds (ETFs) represent one of the

most significant innovations in the investment management industry by combining the diversification benefits of mutual funds with the trading flexibility of equity shares. ETFs are investment funds listed and traded on stock exchanges throughout the trading day at market prices. According to the Association of Mutual Funds in India (AMFI), an ETF is a marketable security that tracks the performance of an index, commodity, bonds, or a basket of assets. The portfolio of an ETF closely replicates its benchmark index, allowing investors to achieve diversified market exposure at relatively lower costs. Unlike conventional mutual funds, ETFs possess a unique creation and redemption mechanism that operates through authorized participants in the primary market while simultaneously facilitating continuous trading in the secondary market. This in-kind creation and redemption process helps maintain market efficiency by minimizing the difference between the market price and the Net Asset Value (NAV) through arbitrage activities. The transparency of portfolio holdings, intraday liquidity, tax efficiency, lower expense ratios, and operational simplicity have made ETFs increasingly attractive to both institutional and retail investors.

The Indian ETF market has experienced substantial growth since the launch of the country's first ETF in 2001. Initially, the market was dominated by Gold ETFs, reflecting investors' traditional preference for gold as a safe-haven asset. However, over the past decade, the market has undergone a structural transformation, with Equity ETFs emerging as the dominant segment. This expansion has been driven by several factors, including increasing investor awareness of passive investing, government disinvestment programmes through ETFs, the rapid growth of retirement and pension funds, technological advancements in digital investing platforms, and supportive regulatory initiatives introduced by the Securities and Exchange Board of India (SEBI). As a result, Assets under Management (AUM), trading volumes, and the number of ETF schemes have increased significantly, making ETFs one of the fastest-growing segments of the Indian mutual fund industry. Despite this remarkable progress, the Indian ETF market continues to face several challenges, including limited retail investor participation, liquidity constraints in certain ETF categories, inadequate investor awareness, and concentration of assets in a few large schemes. Addressing these challenges requires continuous regulatory support, investor education, product innovation, and improved market infrastructure to ensure broader adoption of ETFs across different investor segments.

Against this backdrop, the present study examines the evolution and expansion of the Exchange-Traded Fund market in India. It analyses the historical growth of the ETF industry, changing market composition, trends in Assets under Management (AUM), and the major factors driving market expansion. The study also evaluates the role of regulatory initiatives, identifies the challenges affecting ETF adoption, and discusses future growth opportunities. By providing a comprehensive analysis of the Indian ETF ecosystem, the study contributes to the understanding of passive investment development and offers valuable insights for researchers, policymakers, asset management companies, financial practitioners, and investors.

Review of Literature

Exchange-Traded Funds (ETFs) have emerged as one of the most significant financial innovations in modern investment management. The rapid expansion of passive investing has attracted considerable attention from researchers, resulting in extensive literature on ETF evolution, market development, performance, liquidity, and investor behaviour.

Gastineau (2010) identified Exchange-Traded Products (ETPs), including ETFs, as major financial innovations that combine the characteristics of traditional investment funds with the trading flexibility of listed securities. Similarly, Hill et al. (2015) described ETFs as hybrid investment products that integrate the diversification benefits of mutual funds with the liquidity and continuous trading features of common stocks. Dannhauser (2017) further argued that ETFs represent an important financial innovation that positively influences the valuation and liquidity of underlying securities.

The global ETF industry has experienced remarkable growth since the introduction of the first ETF in the early 1990s. Dhole (2014) explained that ETFs are exchange-listed investment vehicles designed to track the performance of an index, commodity, bond, or basket of securities while offering investors intraday trading opportunities similar to equities. Ben-David (2017) highlighted that the combination of low transaction costs, passive index replication, transparency, and intraday liquidity has made ETFs one of the most popular investment instruments among institutional and retail investors.

Several studies have examined the contribution of ETFs to market efficiency and liquidity. Boehmer and Boehmer (2003) reported significant improvements in market quality and trading liquidity following the introduction of ETFs on the New York Stock Exchange. Marshall et al. (2015) analysed more than 800 equity, bond, commodity, and real estate ETFs and found a strong positive relationship between ETF liquidity and the liquidity of the underlying securities. Agarwal et al. (2018) observed that higher liquidity similarity among component securities enhances arbitrage efficiency, thereby



improving ETF pricing and market performance. Likewise, Madhavan (2016) and Madhavan and Sobczyk (2016) concluded that ETFs contribute to efficient price discovery, improved market functioning, and enhanced investment accessibility.

The rapid expansion of the ETF industry has been attributed to several structural and behavioural factors. Bienkowski (2007) identified diversification benefits, lower expense ratios, transparency, and product innovation as the primary drivers of ETF growth. Clifford et al. (2014) suggested that investor return-chasing behaviour and extrapolation bias also contributed to the increasing popularity of ETFs, alongside the global shift towards passive investment strategies.

Recent reviews have further highlighted the continued expansion and diversification of the ETF market. ETFGI (2024) and Morningstar (2024) reported sustained growth in global ETF assets and flows, with active ETFs, thematic ETFs, and fixed-income ETFs gaining greater prominence in investor portfolios. Anadu et al. (2020) noted that ETF trading can support liquidity in underlying bond markets under normal conditions, although it may also transmit stress during periods of market turbulence. In India, AMFI (2024) and SEBI (2023) documented the continued rise of ETF assets, supported by retail participation, pension fund allocations, and government disinvestment through the ETF route. These recent developments indicate that ETFs are no longer limited to a niche passive strategy but have become an important component of modern portfolio construction.

The Indian ETF market has also witnessed substantial transformation over the past two decades. Singh and Gupta (2009) evaluated ETFs listed on the National Stock Exchange (NSE) and found that most funds effectively replicated the returns of their benchmark indices despite variations in tracking errors. Prasanna (2012) examined 82 ETF schemes traded in India and reported strong annual growth during 2006–2011, with Gold ETFs and international fund-of-funds attracting significant investor interest. The study also highlighted the increasing acceptance of ETFs as an alternative investment avenue.

Singh and Kaur (2016) investigated the tracking efficiency of Indian Equity ETFs and observed that assets under management and trading volume positively influence ETF performance, whereas market volatility adversely affects tracking efficiency. Their findings indicate that larger and more liquid ETFs tend to replicate benchmark indices more accurately. Polisetty and Manda (2019) emphasized the strategic role of ETFs in supporting the Government of India's disinvestment programme, demonstrating how public policy initiatives have accelerated the growth of the Indian ETF market.

Although previous studies have examined ETF performance, liquidity, tracking error, and investment efficiency, limited research has comprehensively analysed the evolution and expansion of the Indian ETF market by integrating historical development, market growth trends, changing asset composition, regulatory initiatives, and future growth opportunities. The Indian ETF industry has undergone a significant transformation from being predominantly Gold ETF-oriented to becoming increasingly dominated by Equity ETFs, supported by government disinvestment programmes, rising institutional investments, digital investment platforms, and favourable regulatory reforms introduced by the Securities and Exchange Board of India (SEBI). Therefore, the present study attempts to bridge this gap by providing a comprehensive analysis of the evolution, expansion, growth drivers, challenges, and future prospects of the Exchange-Traded Fund market in India.

2. OBJECTIVES OF THE STUDY

To examine the evolution of the Exchange-Traded Fund (ETF) market in India, including its historical development, growth phases, and changing market structure.

To analyse the expansion and growth trends of the Indian ETF market by examining Assets under Management (AUM), the number of ETF schemes, trading volumes, and the changing composition of ETF categories over the study period.

To identify the key drivers contributing to the growth and expansion of the ETF market in India, including regulatory initiatives, government disinvestment programmes, institutional participation, technological advancements, and increasing investor awareness.

To examine the major challenges and bottlenecks affecting the adoption of ETFs in India, such as limited retail participation, liquidity constraints, investor awareness, and market concentration.

To evaluate the role of the Securities and Exchange Board of India (SEBI) and other stakeholders in promoting the development, regulation, and sustainable expansion of the ETF market in India.

3. RESEARCH METHODOLOGY

The present study is descriptive and analytical in nature and is based entirely on secondary data. Data were collected from reliable and authentic sources, including research articles, books, annual reports, government publications, and reports available on the official websites of the Association of Mutual Funds in India (AMFI), Securities and Exchange Board of India (SEBI), National Stock Exchange (NSE), BSE Ltd., National Stock Exchange Indices (Nifty Indices), ETFGI, Morningstar, and various Asset Management Companies (AMCs). The study examines the historical evolution and expansion of the Exchange-Traded Fund (ETF) market in India by analysing trends in Assets under Management (AUM), the number of ETF schemes, trading volumes, investor participation, and the changing composition of ETF categories. Year-on-year (YoY) growth rates of ETF Assets under Management have been computed using AMFI data to evaluate the growth trajectory of the Indian ETF market. Trend analysis, comparative analysis, and descriptive statistics have been employed to examine the growth pattern, identify the major drivers of market expansion, and assess the challenges affecting ETF adoption in India. The study covers the period from the launch of the first ETF in India in 2001 to the latest available data for 2025, thereby providing a comprehensive assessment of the evolution and expansion of the Indian ETF market.

Data Analysis and Outcomes

Evolution and Expansion of the Exchange-Traded Fund Market in India

The evolution of the Exchange-Traded Fund (ETF) market in India reflects the country's gradual transition towards passive investing. Since the launch of the first ETF in 2001, the industry has experienced remarkable growth in terms of Assets under Management (AUM), the number of schemes, investor participation, and product diversification. Initially, ETFs were primarily used by institutional investors; however, over the past decade, increasing retail participation, favourable regulatory reforms, and digital investment platforms have significantly expanded the market.

Early Stage (2001–2007): Foundation of the ETF Market

The Indian ETF industry began in December 2001 with the launch of Nifty BeES (Benchmark Exchange-Traded Scheme) by Benchmark Mutual Fund. The ETF was listed on the National Stock Exchange (NSE) on 8 January 2002, becoming India's first equity ETF tracking the Nifty 50 Index. The successful introduction of Nifty BeES marked the beginning of passive investing in India.

In **2003**, Benchmark Mutual Fund introduced **Liquid BeES**, India's first debt ETF, which tracked the Nifty 1D Rate Index. This product expanded ETF offerings beyond equities and demonstrated the flexibility of ETFs across different asset classes.

Growth of Gold ETFs (2007–2014)

A major milestone occurred in **2007** when the Government of India and SEBI permitted the launch of Gold Exchange-Traded Funds. Benchmark Mutual Fund introduced Gold BeES, India's first Gold ETF. Following the global financial crisis of 2008, investors increasingly shifted towards gold as a safe-haven asset, leading to rapid growth in Gold ETFs. Between 2009 and 2014, Gold ETFs accounted for a substantial share of total ETF assets in India, reflecting investors' preference for low-risk investment avenues during periods of economic uncertainty.

Expansion through Policy Reforms (2013–2025)

The Indian ETF market entered a new phase of expansion following several important policy initiatives.

Pension Fund Reforms (2013–14): The Union Budget permitted pension funds to invest in ETFs, encouraging long-term institutional investment.

CPSE ETF (2014): The Government of India introduced the Central Public Sector Enterprises (CPSE) ETF as part of its disinvestment programme. The successful launch of the CPSE ETF increased investor awareness and demonstrated the effectiveness of ETFs as a vehicle for government stake sales.

EPFO Investment (2015): The Employees' Provident Fund Organisation (EPFO) began investing a portion of its corpus in Equity ETFs. Initially allocating 5% of incremental investments, EPFO later increased this allocation, making it one of the largest institutional investors in Indian ETFs.

Smart Beta ETFs (2015): Asset Management Companies introduced Smart Beta ETFs that combined passive index investing with factor-based investment strategies such as value, momentum, quality, low volatility, and dividend yield, providing investors with enhanced portfolio construction options.

Rapid Expansion and Product Diversification (2019–2025)

From **2019 onwards**, the Indian ETF market witnessed unprecedented growth. Equity ETFs emerged as the dominant segment, surpassing Gold ETFs in Assets under Management. Several factors contributed to this expansion:

Strong institutional investments from EPFO, pension funds, insurance companies, and corporate treasuries.

Government disinvestment programmes conducted through ETF routes.

Growing investor awareness regarding passive investing.

Lower expense ratios compared with actively managed mutual funds.

Rapid adoption of digital investment platforms and online brokerage services.

Introduction of sectoral, thematic, international, debt, and Smart Beta ETFs by Asset Management Companies.

By **2025**, the Indian ETF industry had evolved into one of the fastest-growing segments of the mutual fund industry. Equity ETFs accounted for the largest proportion of ETF Assets under Management, while the number of ETF schemes listed on Indian stock exchanges continued to increase. Rising participation by retail investors, supported by fintech platforms, systematic investment facilities, and improved financial literacy, further strengthened market expansion.

Key Drivers of ETF Market Expansion in India

The remarkable expansion of the Indian ETF market has been driven by several interrelated factors:

Increasing preference for passive investment strategies.

Lower expense ratios compared to actively managed mutual funds.

High transparency through daily portfolio disclosure.

Intraday trading flexibility and liquidity.

Government disinvestment initiatives through ETF mechanisms.

Institutional investments by EPFO, pension funds, and insurance companies.

Regulatory support from SEBI.

Expansion of digital investment platforms and fintech applications.

Growth in investor awareness and financial literacy.

Introduction of innovative ETF products, including Smart Beta, thematic, sectoral, international, debt, and ESG ETFs.

Table 1: Evolution of the Exchange-Traded Fund (ETF) Market in India

ETF Category	Scheme Name	Launch Year	Asset Management Company (AMC)	Underlying Index
First Equity ETF	Nifty BeES	2001	Benchmark Mutual Fund	Nifty 50 Total Return Index
First Debt ETF	Nifty Liquid BeES	2003	Benchmark Mutual Fund	Nifty 1D Rate Index
First Banking ETF	Nifty Bank BeES	2004	Benchmark Mutual Fund	Nifty Bank Total Return Index
First Gold ETF	Gold BeES	2007	Benchmark Mutual Fund	Domestic Price of Gold
First International ETF	Hang Seng BeES	2010	Benchmark Mutual Fund	Hang Seng Total Return

ETF Category	Scheme Name	Launch Year	Asset Management Company (AMC)	Underlying Index
			Fund	Index
First Gilt ETF	LIC MF Nifty 8–13 Year G-Sec ETF	2014	LIC Mutual Fund	Nifty 8–13 Year G-Sec Index
First Thematic ETF	CPSE ETF	2014	Goldman Sachs Mutual Fund*	CPSE Index
First Smart Beta ETF	Reliance ETF NV20	2015	Reliance Mutual Fund	Nifty50 Value 20 Total Return Index
First Corporate Bond ETF	Bharat Bond ETF	2019	Edelweiss Mutual Fund	Bharat Bond Index
First Equal Weight ETF	DSP Nifty 50 Equal Weight ETF	2021	DSP Mutual Fund	Nifty 50 Equal Weight Index
First State Development Loan (SDL) ETF	Nippon India Nifty SDL Apr 2026 Top 20 Equal Weight ETF	2021	Nippon India Mutual Fund	Nifty SDL Top 20 Equal Weight Index
First Silver ETF	ICICI Prudential Silver ETF	2022	ICICI Prudential Mutual Fund	Domestic Price of Silver
First Nifty 500 ETF	Motilal Oswal Nifty 500 ETF	2023	Motilal Oswal Mutual Fund	Nifty 500 Total Return Index
First Multi-Factor ETF	Mirae Asset Nifty Smallcap 250 Momentum Quality 100 ETF	2024	Mirae Asset Mutual Fund	Nifty Smallcap 250 Momentum Quality 100 Total Return Index
First Nifty Oil & Gas ETF	ICICI Prudential Nifty Oil & Gas ETF	2024	ICICI Prudential Mutual Fund	Nifty Oil & Gas Total Return Index
First Electric Vehicle & New Age Automotive ETF	Mirae Asset Nifty EV & New Age Automotive ETF	2024	Mirae Asset Mutual Fund	Nifty EV & New Age Automotive Total Return Index
First Defence ETF	Motilal Oswal Nifty India Defence ETF	2025	Motilal Oswal Mutual Fund	Nifty India Defence Index
First Manufacturing ETF (Make in India Theme)	Mirae Asset Nifty India Manufacturing ETF	2025	Mirae Asset Mutual Fund	Nifty India Manufacturing Index
First BSE 500 ETF	ICICI Prudential BSE 500 ETF	2025	ICICI Prudential Mutual Fund	BSE 500 Total Return Index

The evolution of the Indian ETF market demonstrates a gradual shift from broad-based index products to specialized investment themes. The early phase (2001–2014) was characterized by the introduction of equity, debt, gold, banking, and



international ETFs. The second phase (2015–2020) witnessed the launch of Smart Beta and corporate bond ETFs, reflecting increasing product innovation. During the third phase (2021–2025), the market expanded rapidly with the introduction of Equal Weight, State Development Loan (SDL), Silver, Nifty 500, multi-factor, sectoral, manufacturing, defence, and electric vehicle ETFs. This diversification indicates the growing maturity of the Indian ETF ecosystem and the increasing demand for passive investment products across various asset classes and investment themes.

Furthermore, the National Stock Exchange (NSE) launched **India Passive Funds**, India's first dedicated digital platform for passive investing. The platform provides comprehensive information on Exchange-Traded Funds (ETFs) and Index Funds, including scheme details, historical performance, expense ratios, tracking error, underlying indices, educational resources, and investor awareness initiatives. The launch of this platform represents an important milestone in promoting passive investing and enhancing financial literacy among Indian investors. Along with supportive regulatory initiatives by SEBI, increasing participation by institutional investors, and the rapid expansion of digital investment platforms, this initiative has contributed significantly to the continued growth and expansion of the ETF market in India through 2025.

Growth and Expansion of the Exchange-Traded Fund (ETF) Market in India

The rapid growth of Exchange-Traded Funds (ETFs) represents one of the most significant developments in the global investment management industry. Over the last three decades, passive investing has gained widespread acceptance among institutional and retail investors due to its lower costs, transparency, diversification benefits, and ability to closely track benchmark indices. Globally, the ETF industry has expanded from a single ETF launched in 1993 to more than 8,700 ETF schemes managing assets exceeding US\$10 trillion by 2022, highlighting the increasing shift towards passive investment strategies.

India has also witnessed remarkable growth in its ETF market since the launch of the first ETF, Nifty BeES, in 2001. Although the initial pace of growth was relatively slow, the Indian ETF industry has transformed into one of the fastest-growing segments of the mutual fund industry over the past decade. According to the National Stock Exchange (NSE), increasing awareness of passive investing, the inability of many actively managed large-cap funds to consistently outperform benchmark indices, lower expense ratios, and favourable regulatory initiatives have been the primary factors driving the expansion of ETFs in India.

During the initial years, ETF adoption remained limited. As of March 2002, the total Assets under Management (AUM) of ETFs stood at only ₹7 crore. A major turning point occurred with the introduction of Gold ETFs in 2007. Following the global financial crisis of 2008, investors increasingly preferred gold as a safe-haven asset, resulting in rapid growth in Gold ETF investments. The AUM of Gold ETFs increased substantially from approximately ₹736 crore in March 2009 to ₹11,648 crore in March 2013. Between 2009 and 2014, Gold ETFs accounted for more than half of the total ETF assets in India, making them the dominant segment of the ETF market.

The structure of the Indian ETF market began to diversify after 2014. Asset Management Companies (AMCs) introduced new categories of equity and debt ETFs, including thematic ETFs, strategy-based ETFs, target maturity bond ETFs, State Development Loan (SDL) ETFs, and corporate bond ETFs. Government initiatives such as the launch of the Central Public Sector Enterprises (CPSE) ETF, the Bharat Bond ETF, and increased participation by institutional investors significantly accelerated the growth of the ETF industry. Simultaneously, regulatory reforms—including reduced Securities Transaction Tax (STT) on ETFs and tax incentives announced in successive Union Budgets—created a favourable policy environment for passive investments.

Another milestone in the expansion of the ETF market was the decision of the Employees' Provident Fund Organisation (EPFO) to invest a portion of its corpus in Equity ETFs. Together with investments from pension funds, insurance companies, and other institutional investors, EPFO became one of the largest contributors to ETF asset growth. Consequently, the Assets under Management of non-Gold ETFs increased almost tenfold within a few years, reflecting the growing institutional acceptance of passive investment products.

The COVID-19 pandemic further accelerated the adoption of passive investment strategies. Despite market volatility, ETF inflows remained robust due to investors' preference for low-cost, transparent, and diversified investment products. During 2021, Indian ETFs recorded unprecedented inflows, particularly in Equity ETFs, while Smart Beta ETFs also experienced rapid expansion. The number of Smart Beta ETFs increased considerably, reflecting investors' growing interest in factor-based investment strategies combining passive investing with enhanced return potential.

The sustained underperformance of many actively managed equity mutual funds has further strengthened the case for passive investing. According to the S&P Dow Jones Indices SPIVA India Scorecard (2024), more than half of India's

actively managed large-cap mutual funds underperformed their benchmark indices over the observed period. This has encouraged both retail and institutional investors to increasingly allocate investments towards ETFs and index funds.

The growth in the Indian ETF industry has been exceptional in terms of Assets under Management (AUM). As shown in Table 2, total ETF assets increased from ₹1,396 crore in March 2009 to approximately ₹6.95 lakh crore in March 2024, representing a Compound Annual Growth Rate (CAGR) of about 51.29 percent over the fifteen-year period. During the financial year 2023–24 alone, ETF Assets under Management increased by nearly 37 percent, reflecting sustained investor confidence in passive investment products.

By March 2024, ETFs accounted for approximately ₹6.95 lakh crore of the total ₹53.40 lakh crore mutual fund industry's Assets under Management, representing nearly 13 percent of the overall mutual fund market. Furthermore, ETFs constituted almost three-fourths of India's passive mutual fund assets, highlighting their dominant position within the passive investment segment. Continuous inflows from institutional investors, particularly provident and pension funds, have been the principal contributors to this sustained expansion.

.Table 2: Growth of the ETF sector in India in terms of assets under management (AUM)

Year	AUM in Other ETFs (in Rs. Crore)	Year-on-Year Growth Rate	AUM in Gold ETFs (in Rs. Crores)	Year-on-Year Growth Rate	AUM in all ETFs (in Rs. Crores)	Year-on-Year Growth Rate
March 2009	660	-	736	-	1396	-
March 2010	957	45%	1590	116%	2547	82%
March 2011	2516	163%	4400	177%	6916	172%
March 2012	1607	-36%	9886	125%	11493	66%
March 2013	1476	-8%	11648	18%	13124	14%
March 2014	4528	207%	8676	-26%	13204	1%
March 2015	8060	78%	6655	-23%	14715	11%
March 2016	16063	99%	6346	-5%	22409	52%
March 2017	44436	177%	5480	-14%	49916	123%
March 2018	72888	64%	4806	-12%	77694	56%
March 2019	134626	85%	4447	-7%	139073	79%
March 2020	146463	9%	7949	79%	154412	11%
March 2021	275931	88%	14123	78%	290054	88%
March 2022	411362	49%	19281	37%	430643	48%
March 2023	484280	18%	22737	18%	507017	18%
March 2024	663981	37%	31224	37%	695205	37%
CAGR (2009-						

2024)	58.55%	28.38%	51.29%
-------	--------	--------	--------

Source: AMFI for AUM Values

The growth trajectory continued during **2024–2025**, supported by the introduction of thematic ETFs, manufacturing ETFs, defence ETFs, sector-specific ETFs, and Smart Beta products. Increased retail participation through digital investment platforms, lower expense ratios, improved liquidity, enhanced investor awareness, and continuous regulatory support from the Securities and Exchange Board of India (SEBI) have further strengthened the ETF ecosystem. As a result, the Indian ETF market has evolved from a niche investment product into a mainstream investment vehicle and is expected to remain one of the fastest-growing segments of the Indian capital market in the coming years

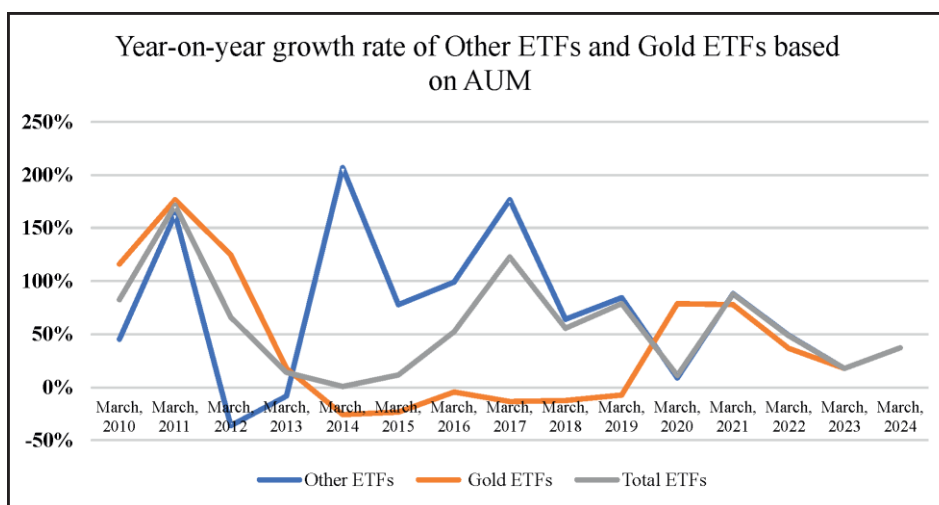


Figure 1: Year-on-year growth rate of the ETF sector in India in terms of assets under management (AUM)

Source: AMFI for AUM Values

Figure 2 illustrates the remarkable expansion in the number of Exchange-Traded Funds (ETFs) available in India. The total number of ETF schemes increased significantly from 63 in March 2017 to 206 in March 2024, reflecting the rapid development and diversification of the Indian ETF market. The growth has been particularly pronounced in Equity ETFs, which have expanded at a substantially faster pace than Debt and Commodity ETFs. This trend indicates the increasing preference of investors for equity-based passive investment products and the continuous introduction of new ETF schemes by Asset Management Companies (AMCs).

A notable structural transformation has also occurred in the composition of the Indian ETF market. During the initial years of ETF development, Gold ETFs accounted for the largest share of Assets under Management (AUM), primarily due to investors' preference for gold as a safe-haven asset. However, with the growing acceptance of passive equity investing, supportive regulatory initiatives, increased institutional participation, and government disinvestment through ETFs, Equity ETFs have emerged as the dominant segment of the market.

As presented in Table 3, 155 Equity ETFs account for approximately 81.7% of the total ETF Assets under Management (AUM) in India, making them the largest category within the ETF industry. In comparison, 29 Debt ETFs contribute 12.9%, while 28 Commodity ETFs, including Gold and Silver ETFs, represent only 5.4% of total ETF assets. This shift from commodity-based ETFs to equity-oriented ETFs highlights the evolution and expansion of the Indian ETF market and reflects the increasing confidence of investors in equity-based passive investment strategies.

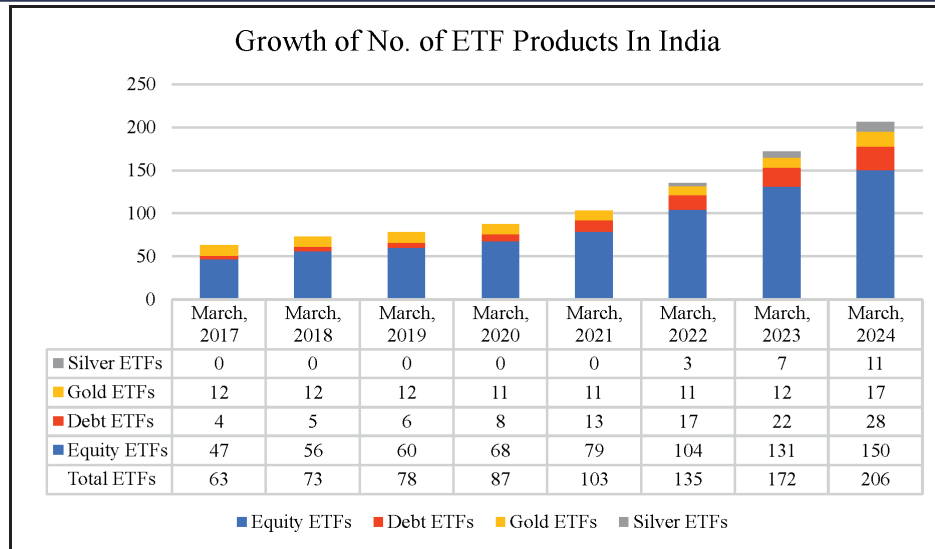


Figure 2: Growth of the number of ETF products in India

Table 3: Categories of ETFs with their assets under management as of June 2024

	<i>Number of ETFs</i>	<i>Assets Under Management (in Rs. Crores)</i>
Equity ETFs	155	6,36,770 (81.7%)
Debt ETFs	29	1,00,359 (12.9%)
Commodity ETFs	28	41,822 (5.4%)
Total ETFs	212	7,78,951

According to the Nifty Indices (2024) report, trading activity in the Indian Exchange-Traded Fund (ETF) market has witnessed substantial growth over the past several years. The annual trading volume of ETFs increased significantly from ₹26,139 crore in FY 2016–17 to ₹1,83,676 crore in FY 2023–24, reflecting the increasing liquidity and investor participation in the ETF segment. The sharp rise in trading volumes demonstrates growing investor confidence and the expanding acceptance of ETFs as an efficient passive investment vehicle.

The report further reveals a significant increase in retail investor participation. As of March 2024, the ETF industry accounted for approximately 1.37 crore investor folios, of which nearly 97 percent belonged to retail investors, while around 2 percent were held by High Net-Worth Individuals (HNIs). Retail investor folios increased remarkably from 5.33 lakh in March 2017 to 1.34 crore by March 2024, indicating a substantial improvement in investor awareness, financial literacy, and the adoption of passive investment products.

The sustained growth in trading volumes, investor folios, and retail participation highlights the rapid evolution and expansion of the Indian ETF market. These developments reflect the increasing maturity of India's capital market, supported by favourable regulatory initiatives, digital investment platforms, lower investment costs, and growing awareness of the long-term benefits of passive investing. Consequently, ETFs have evolved from a niche investment product into a mainstream investment avenue for both institutional and retail investors in India.

Challenges and Bottlenecks Affecting the Expansion of the ETF Market in India

Despite the remarkable evolution and expansion of the Exchange-Traded Fund (ETF) market in India, ETF penetration remains relatively low compared with the overall mutual fund industry. Although the Indian ETF market has recorded

significant growth in Assets under Management (AUM), the investor base continues to be concentrated among institutional investors. Individual investor participation, measured in terms of AUM, remains modest despite a substantial increase in the number of retail investor folios.

Institutional investors, particularly the Employees' Provident Fund Organisation (EPFO), pension funds, insurance companies, and corporate entities, account for the majority of ETF investments in India. Large institutional allocations have significantly contributed to the growth of ETF assets, making products such as the SBI Nifty 50 ETF among the largest ETFs in the country. In contrast, retail investors continue to hold only a small proportion of total ETF assets despite representing the overwhelming majority of investor accounts.

According to the Nifty Indices (2024) report, retail investors constitute approximately 97 percent of total ETF folios, while High Net-Worth Individuals (HNIs) account for nearly 2 percent. However, the distribution of Assets under Management presents a contrasting picture. Corporate and institutional investors collectively hold nearly 90 percent of total ETF assets, HNIs account for around 7 percent, whereas retail investors contribute only about 2 percent of the industry's Assets under Management. This disparity indicates that although retail participation has increased numerically, the value of investments remains highly concentrated among institutional investors. Another major challenge affecting ETF adoption is the limited distribution incentive for financial intermediaries. Unlike actively managed mutual funds, which generally carry expense ratios ranging between 1.5 and 2.0 percent, ETFs typically have significantly lower expense ratios, often below 0.50 percent. Since ETFs generate relatively lower distribution commissions, financial advisors and distributors have fewer financial incentives to recommend them.

Consequently, actively managed mutual funds continue to receive greater promotional support despite evidence that many active funds struggle to consistently outperform benchmark indices. Investor awareness also remains an important challenge. Many retail investors are still unfamiliar with ETF trading mechanisms, exchange-based transactions, liquidity considerations, tracking error, and passive investment strategies. Limited financial literacy regarding passive investment products, together with relatively low advisory support, has slowed broader retail adoption. In addition, liquidity remains uneven across ETF categories, with trading activity concentrated in a limited number of large equity ETFs, while several thematic and sectoral ETFs continue to experience comparatively lower trading volumes.

Furthermore, market concentration poses another challenge to the sustainable expansion of the ETF industry. A significant proportion of ETF assets is concentrated in a small number of equity ETFs sponsored by large Asset Management Companies (AMCs). Diversifying investor participation across different ETF categories and improving liquidity in newly launched ETFs remain important priorities for market development.

Overall, while India's ETF industry has made substantial progress over the past two decades, addressing issues related to retail participation, investor education, market liquidity, product awareness, and distribution incentives will be essential for achieving broader and more balanced market expansion.

Role of SEBI in the Evolution and Expansion of the ETF Market in India

The Securities and Exchange Board of India (SEBI) has played a pivotal role in facilitating the evolution and expansion of the Exchange-Traded Fund (ETF) market through continuous regulatory reforms aimed at improving transparency, liquidity, investor protection, and market efficiency. ETFs in India are governed under the SEBI (Mutual Funds) Regulations, 1996, which provide the regulatory framework for the establishment, operation, and supervision of ETF schemes.

Recognising the growing importance of passive investing, SEBI has introduced several regulatory initiatives to strengthen the ETF ecosystem. In **2019**, SEBI issued comprehensive guidelines on portfolio diversification for index funds and ETFs to ensure better risk management and benchmark representation. Subsequently, in **2022**, SEBI introduced revised operational guidelines requiring every ETF to appoint at least **two market makers** to ensure adequate liquidity and efficient price discovery on stock exchanges. These market makers are responsible for maintaining continuous buy and sell quotations, thereby reducing the difference between market prices and Net Asset Values (NAVs).

SEBI has also prescribed a transparent incentive mechanism for market makers, linking incentives to their effectiveness in providing liquidity. Such incentives are required to remain within the permissible Total Expense Ratio (TER), ensuring that investor interests are protected while maintaining market efficiency.

Another significant contribution of SEBI has been its emphasis on investor education and financial awareness. In collaboration with the Association of Mutual Funds in India (AMFI), SEBI has encouraged Asset Management Companies

(AMCs) to undertake extensive investor awareness programmes focusing on passive investing, ETFs, and index funds. A specified portion of scheme expenses is allocated towards investor education initiatives to improve financial literacy and increase retail participation. In recent years, SEBI has also encouraged greater transparency by strengthening disclosure requirements related to portfolio holdings, tracking error, tracking difference, expense ratios, and liquidity metrics. These initiatives have enhanced investor confidence and enabled more informed investment decisions. The expansion of digital investment platforms, online brokerage services, and fintech applications has complemented SEBI's regulatory efforts by making ETF investments more accessible to retail investors. Moreover, government initiatives such as the CPSE ETF, Bharat Bond ETF, and increased institutional participation through EPFO have further reinforced the regulatory framework supporting the growth of passive investment products.

Looking ahead, the continued expansion of the Indian ETF market will depend on sustained regulatory support, product innovation, enhanced investor education, improved secondary market liquidity, and broader retail participation. Through its proactive regulatory approach, SEBI is expected to remain a key catalyst in promoting the sustainable growth and global competitiveness of the Indian ETF industry.

4. CONCLUSION

The Exchange-Traded Fund (ETF) market in India has undergone a remarkable transformation since the launch of the country's first ETF, **Nifty BeES**, in 2001. Over the past two decades, the Indian ETF industry has evolved from a niche investment segment into one of the fastest-growing components of the mutual fund industry. Initially dominated by Gold ETFs, the market has progressively shifted towards Equity ETFs, reflecting the growing acceptance of passive investment strategies among institutional and retail investors. The study reveals that the expansion of the Indian ETF market has been driven by a combination of regulatory reforms, government policy initiatives, institutional participation, technological advancements, and increasing investor awareness. Key milestones such as the introduction of Gold ETFs, the launch of the CPSE ETF and Bharat Bond ETF, investments by the Employees' Provident Fund Organisation (EPFO), and the emergence of Smart Beta, thematic, sectoral, debt, and commodity ETFs have significantly diversified the Indian ETF ecosystem. Furthermore, supportive initiatives by the Securities and Exchange Board of India (SEBI), including enhanced disclosure standards, liquidity requirements, and investor education programmes, have strengthened market transparency and investor confidence.

The analysis also indicates impressive growth in the ETF industry. Assets under Management (AUM), the number of ETF schemes, trading volumes, and investor folios have increased substantially over the study period. The number of ETF schemes expanded rapidly, while trading activity and retail investor participation also recorded significant growth. The transition from broad market index ETFs to specialized products such as Smart Beta, manufacturing, defence, electric vehicle, ESG, and target maturity bond ETFs demonstrates the increasing maturity and innovation of the Indian ETF market. Despite these achievements, several challenges continue to constrain the broader adoption of ETFs. Retail investors, although accounting for the majority of ETF folios, still contribute only a small proportion of total ETF assets, indicating that institutional investors remain the dominant participants. Limited investor awareness, uneven liquidity across ETF categories, concentration of assets in a few large schemes, and lower distribution incentives compared with actively managed mutual funds remain significant barriers to market expansion. Addressing these challenges will require continuous efforts from regulators, Asset Management Companies (AMCs), stock exchanges, financial intermediaries, and investor education agencies. Looking ahead, the future prospects of the Indian ETF market remain highly promising. Increasing financial literacy, rapid digitalisation of investment platforms, growing preference for low-cost passive investment strategies, expansion of retirement and pension investments, and continued product innovation are expected to sustain long-term market growth. As India's capital market continues to deepen and investor participation broadens, ETFs are likely to become an integral component of diversified investment portfolios. In conclusion, the evolution and expansion of the Exchange-Traded Fund market in India reflect the country's transition towards a more efficient, transparent, and investor-oriented financial system. With sustained regulatory support, improved market infrastructure, enhanced investor awareness, and greater retail participation, the Indian ETF industry is well positioned to become one of the leading passive investment markets among emerging economies and to contribute significantly to the long-term development of India's capital market.

References

1. Agarwal, V., Hanouna, P., Moussawi, R., & Stahel, C. W. (2018). Do ETFs increase the commonality in liquidity of underlying stocks? SSRN.
2. AMFI. (2024). AMFI annual mutual fund report 2024.



https://www.amfiindia.com/Themes/Theme1/downloads/AMFI_AnnualMFReport.pdf

3. Ben-David, I., Franzoni, F. A., & Moussawi, R. (2017). Exchange-traded funds. *Annual Review of Financial Economics*, 9, 169–189.
4. Bender, J., Briand, R., Melas, D., & Subramanian, R. A. (2013). Foundations of factor investing. SSRN. <https://doi.org/10.2139/ssrn.2543990>
5. Bienkowski, N. (2007). Exchange-traded commodities: Led by gold, ETCs opened the world of commodities to investors. *Alchemist*, London Bullion Market Association, 48, 6–8.
6. Boehmer, B., & Boehmer, E. (2003). Trading your neighbor's ETFs: Competition or fragmentation? *Journal of Banking & Finance*, 27(9), 1667–1703.
7. Box, T., Davis, R., Evans, R., & Lynch, A. (2021). Intraday arbitrage between ETFs and their underlying portfolios. *Journal of Financial Economics*, 141(3), 1078–1095.
8. Brown, D. C., Davies, S. W., & Ringgenberg, M. C. (2021). ETF arbitrage, non-fundamental demand, and return predictability. *Review of Finance*, 25(4), 937–972.
9. Charteris, A., Chau, F., Gavriilidis, K., & Kallinterakis, V. (2014). Premiums, discounts and feedback trading: Evidence from emerging markets' ETFs. *International Review of Financial Analysis*, 35, 80–89.
10. Clifford, C. P., Fulkerson, J. A., & Jordan, B. D. (2014). What drives ETF flows? *Financial Review*, 49(3), 619–642.
11. Dannhauser, C. D. (2017). The impact of innovation: Evidence from corporate bond exchange-traded funds (ETFs). *Journal of Financial Economics*, 125(3), 537–560.
12. Dhole, S. S. (2014). Commodity futures market in India: The legal aspect and its rationale. *International Journal of Research in Management & Business Studies*, 1(2), 38–47.
13. Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383–417.
14. French, K. R. (2008). Presidential address: The cost of active investing. *The Journal of Finance*, 63(4), 1537–1573.
15. Gastineau, G. L. (2010). *The exchange-traded funds manual* (Vol. 186). John Wiley & Sons.
16. Gunasekaran, D. (2021, December 2). Smart beta funds are high on quality: Here are their top 10 stocks. *Moneycontrol*. <https://www.moneycontrol.com/news/photos/business/personal-finance/smart-beta-funds-are-high-on-quality-here-are-their-top-10-stocks-7777111-1.html>
17. Hill, J. M., Nadig, D., & Hougan, M. (2015). *A comprehensive guide to exchange-traded funds (ETFs)*. CFA Institute Research Foundation.
18. India Passive Funds. (2024). Passive vs. active funds. https://www.indiapassivefunds.com/api/public/Passive_Vs_activefunds.pdf
19. Jacobs, B. I., & Levy, K. N. (2014). Smart beta versus smart alpha. *The Journal of Portfolio Management*, 40(4), 4–7.
20. Lakshmi, V. D. M. V. (2022). Do exchange traded funds in India have tracking and pricing efficiency? *Advances in Decision Sciences*, 26(2), 1–25.
21. Madhavan, A. N. (2016). *Exchange-traded funds and the new dynamics of investing*. Oxford University Press.
22. Madhavan, A., & Sobczyk, A. (2016). Price dynamics and liquidity of exchange-traded funds. *Journal of Investment Management*, 14(2), 1–17.
23. Marshall, B. R., Nguyen, N. H., & Visaltanachoti, N. (2015). *ETF liquidity* (Working Paper). Massey University.
24. Morningstar. (2022). Global investor experience study: Fees and expenses. https://assets.contentstack.io/v3/assets/blt4eb669caa7dc65b2/blt60e320775385837a/62431900eed9f60f2de8ad55/GI_E_2022.pdf
25. Nifty Indices. (2024). Nifty passive insights quarterly update: April–June 2024. <https://www.niftyindices.com/reports/?option1=Archives%20of%20Daily%20Monthly%20Reports&option8=Nifty%20Passive%20Insights>

26. Polisetty, A., & Manda, V. K. (2019). Growth and development of exchange traded funds (ETFs) in India. *Advance and Innovative Research*, 6(1), 90–96.
 27. Prasanna, P. K. (2012). Performance of exchange-traded funds in India. *International Journal of Business and Management*, 7(23), 122–131.
 28. Ramachandran, S., & Saha, N. (2020). A report on the Indian exchange traded funds (ETF) industry. CFA Society India Research and Advocacy Initiative.
 29. S&P Dow Jones Indices. (2024). SPIVA India scorecard year-end 2023. S&P Global. <https://www.spglobal.com/spdji/en/spiva/article/spiva-india/>
 30. SEBI. (2022, May). Circular on development of passive funds. https://www.sebi.gov.in/legal/circulars/may-2022/circular-on-development-of-passive-funds_59098.html
 31. Singh, J., & Kaur, P. (2016). Tracking efficiency of exchange traded funds (ETFs): Empirical evidence from Indian equity ETFs. *Paradigm*, 20(2), 176–190.
 32. Singh, Y. P., & Gupta, S. (2009). Performance of exchange traded funds in India. *Indian Journal of Accounting*, 40(1), 16–26.
 33. Stambaugh, R. F. (2014). Presidential address: Investment noise and trends. *The Journal of Finance*, 69(4), 1415–1453.
- .
- ..
-