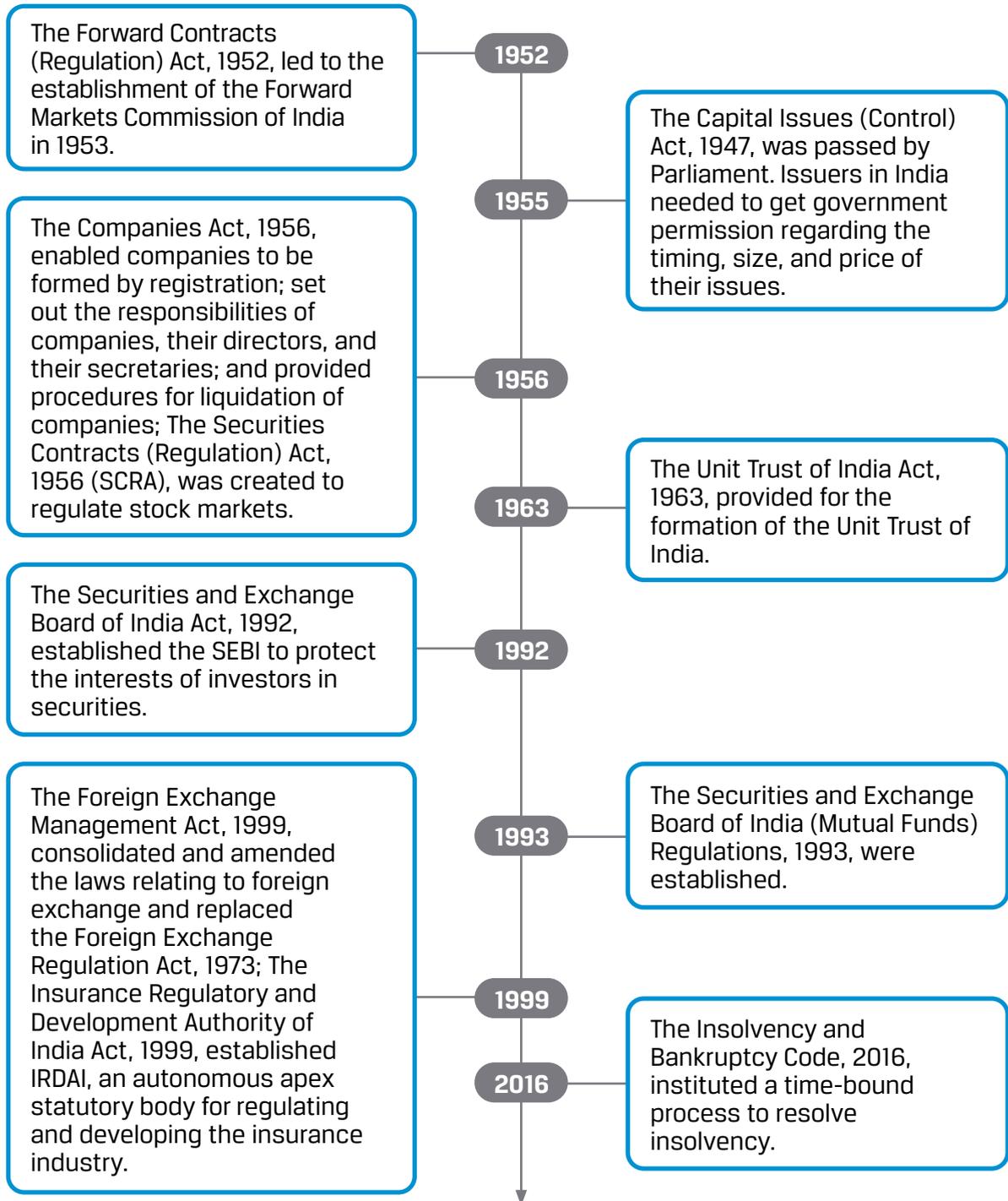


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Equity Market Capitalization (USD)*	1,506 Bn
Equity Market Cap/GDP*	56%
Equity Market Share Volume Traded (USD)**	1,282,000 Mn
Number of Listed Companies*	5,539

* As of March 2020

** Fiscal Year 2020 (April 2019–March 2020)

1,797 Bn	Debt Market Capitalization (USD)*
67%	Domestic Debt Market Cap/GDP
2,057,000 Mn	Debt Market Instrument Volume Traded (USD)**
~29,000	Number of Issuers (Bonds)

EVOLUTION OF CAPITAL MARKETS IN INDIA

The capital markets in India had their modest beginnings near the end of the 18th century when the loan securities of the East India Company were being traded in India. By the early 19th century, a noticeable increase in the value of corporate securities of banks and cotton presses had occurred. However, only a handful of brokers were recognized by the banks to perform trades. During the onset of the American Civil War (1860–61), raw cotton imports from US industries to Britain plunged sharply. This change resulted in a heavy reliance on Bombay (now Mumbai) for cotton; it became the major supplier to Britain. With this rapid development, Bombay became the chief trading center in India, hosting almost 250 brokers at one time.

This period was the first boom cycle in the history of India; however, it lasted only about half a decade. After this period, the importance of a share-trading institution became evident. In 1875, a handful of brokers formed the Native Share and Stock Brokers' Association, which became the Bombay Stock Exchange and is now simply called BSE. It is the oldest stock exchange in Asia.

After the formation of the Bombay Stock Exchange, various parts of India saw a rapid expansion of textile mills, with cotton and jute industries flourishing throughout the country. This expansion led to the formation of new exchanges in Ahmedabad and Calcutta. In the early 1900s, the Swadeshi movement (i.e., the boycott of British-made goods) and the establishment of such companies as Tata Iron and Steel Company (now Tata Steel) led

to further development of Indian businesses. Consequently, World War I and World War II made the world recognize India as a key supplier of various commodities. But with restrictions on cotton, bullion, seeds, and other commodities, enterprises started looking for other sources of funds for their businesses. This trend prompted these companies to become listed on the exchanges, which led to the emergence of a few more exchanges in various parts of the country to facilitate the buying and selling of securities.

During World War II, most of the stock exchanges experienced a sharp fall. In the 1950s, as the scrips of such major companies as Tata Steel and Century Textiles and Industries Ltd began fluctuating wildly, a need for regulation and recognition of the exchanges emerged. When the Securities Contracts (Regulation) Act, 1956, came into force in 1957, the BSE became the first exchange to be recognized under the act, followed by seven other exchanges. The development of such financial institutions as the Life Insurance Corporation of India further helped revive the sentiment of the public, which had been affected by insurance fraud by owners of private insurance agencies. In 1963, the Unit Trust of India, the first mutual fund in India, was established at the initiative of the government of India and the Reserve Bank of India. The markets followed a downward trajectory over the next few years as the country suffered wars and droughts.

The 1980s saw tremendous growth in the security market in India. The introduction of public sector bonds and such successful issues as Reliance Industries Limited and Larsen & Toubro led to enlarged volumes in the secondary market, coupled with new listings and the establishment of new stock exchanges across India.

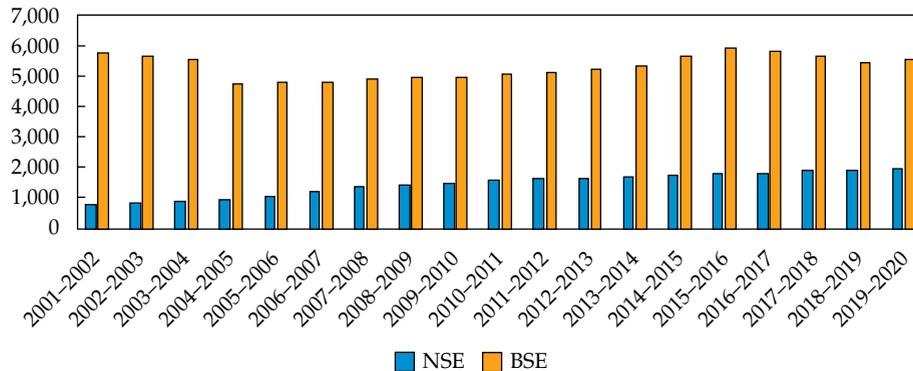
A stock scandal in 1992 led to the creation of the Securities and Exchange Board of India (SEBI) as the regulator of Indian capital markets and the formation of National Stock Exchange of India (NSE), an automated, paperless exchange, to bring about transparency in the Indian equity markets. Since then, NSE has grown tremendously, primarily because of the initial liquidity it was able to receive from its owners—banks and other financial institutions that had become important institutional holders of equities during the 1980s. Also, NSE gave cheaper and more efficient access to small brokers across the country, drawing liquidity away from other exchanges, including BSE.

The idea of strong corporate governance was also prominent in the past three decades, which led to amendments in the existing governance structure and the establishment of the Naresh Chandra Committee on Corporate Audit and Governance by the Ministry of Corporate Affairs in 2002. Ethical practices and strong governance form the pillars of the history of Indian capital markets.

EQUITY

The India equity markets constitute around 6.5% of the Asia-Pacific equity market capitalization. NSE and BSE are the two most renowned national exchanges in India. Both follow the same trading mechanism and settlement process (T+2 rolling-settlement-cycle basis) and are regulated and governed by SEBI. The functions of clearing and settlement for NSE and BSE are provided by NSE Clearing Limited and Indian Clearing Corporation Limited, respectively.

BSE boasts more than 5,000 companies listed on it consistently over the last 20 years. NSE has seen a steady increase during this period, from around 800 companies in 2002 to almost 2,000

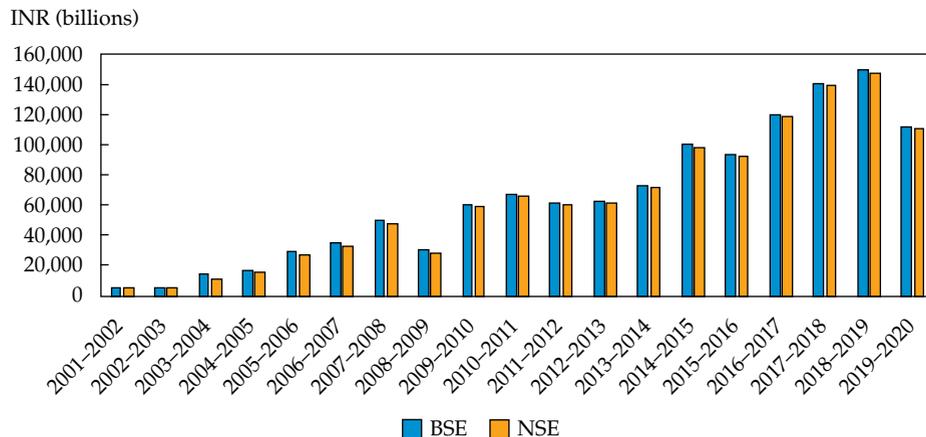
FIGURE 1. NUMBER OF COMPANY LISTINGS

Sources: NSE; BSE.

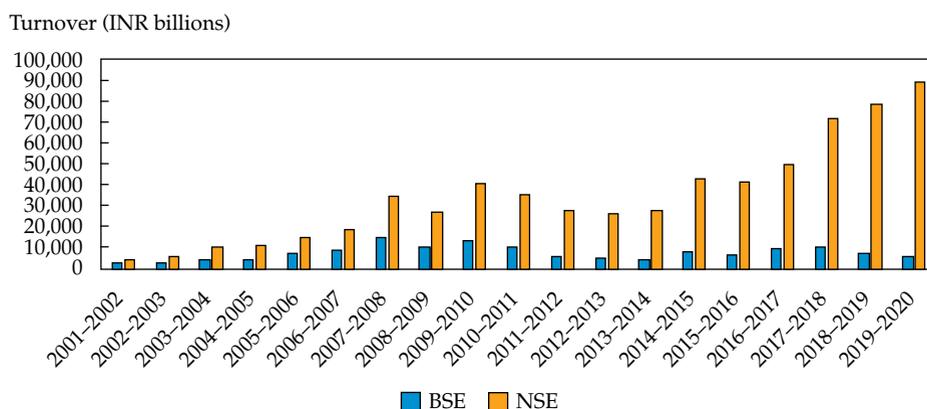
in 2020 (see **Figure 1**). Although NSE has fewer listed companies, its market cap has been about equal to that of BSE throughout the period, with BSE and NSE being the 10th and 11th largest stock exchanges in the world by market capitalization (see **Figure 2**).

In terms of liquidity, both exchanges compete for order flow, which leads to reduced transaction costs and efficiency. NSE, however, enjoys the lion's share (i.e., more than 90% in recent

years) of the total turnover (see **Figure 3**). Part of this turnover comes from NSE's fully automated trading system—the National Exchange for Automated Trading, or NEAT, which was introduced at the beginning of the exchange's establishment—and its vast network of very small aperture terminals, or VSATs (which require less infrastructure to service remote locations), and leased lines spread across more than 2,000 cities in India. This vast network and the high liquidity of NSE, along with that of

FIGURE 2. HISTORICAL BSE AND NSE MARKET CAP

Sources: NSE; BSE.

FIGURE 3. BSE AND NSE CASH TURNOVER

Sources: NSE; BSE.

BSE, also paved the way for the consolidation of 15 regional exchanges in 2014.

Each exchange introduced a new platform for small and medium-sized enterprises (SMEs) in 2012, in accordance with the rules and regulations established by SEBI, to raise funds from the public without an initial public offering. The NSE EMERGE platform has around 200 listed SMEs, and BSE has more than 300 companies listed on its SME platform.

In terms of sectoral composition, the Indian capital markets have seen much change over the past three decades. Prior to globalization, the composition of the BSE SENSEX was completely dominated by manufacturing companies, featuring 26 out of 30 companies. As the services sector grew, with a number of companies being nongovernment, especially in the finance and information technology industries, the number of manufacturing companies fell by half, to around 13 companies in 2018.

The mutual fund industry in India has become an integral part of the country's financial landscape, seeing significant growth in the past decade. Research conducted by the ET

Intelligence Group shows that among public shareholders, mutual funds owned around 19% of the stocks in the S&P BSE 500 Index as of September 2019, compared with around 12% in 2015 (see **Table 1**).¹ This change can be attributed to multiple factors, including an increase in financialization after the 2016 demonetization, product innovations by asset management companies (AMCs) in the form of systematic investment plans, and improved reach of channel partners (especially direct channel, where sales happen through AMC branches and websites) to bring smaller investors into the pool. As a result, such factors have led to a recent surge in inflows from retail investors, reducing the reliance on offshore investments.

The clients of the asset management industry are predominantly individual asset owners, owning more than 50% of fund assets under management. This fact highlights how the Indian market has no separation of institutional asset owners and asset managers, unlike most developed markets.

¹Rajesh Mascarenhas, "Domestic Investors Grow in Strength as Foreign Funds Take a Step Back," *Economic Times* (1 November 2019).

TABLE 1. OWNERSHIP AMONG PUBLIC SHAREHOLDERS IN S&P BSE 500 STOCKS (%)

Investors	September 2015	September 2016	September 2017	September 2018	September 2019
Banks	3.2	4.0	3.5	2.8	2.3
Foreign portfolio investment	53.3	51.9	49.2	48.5	48.2
Insurance	11.9	12.2	11.7	12.5	11.4
Mutual funds	11.6	11.5	14.0	16.1	18.8
Retail	20.0	20.4	21.6	20.1	19.3

Note: The S&P BSE 500 is a broad representation of the Indian market, consisting of the largest 500 constituents by market cap.

Source: ET Intelligence Group.

The last few years have also seen consistent growth in the participation of retail investors in owning equities, with the current number of Demat accounts, or dematerialized accounts, growing to almost 41 million. Demat accounts were introduced when the Depositories Act, 1996, was passed by SEBI to phase out share certificates and encourage holding shares in electronic form. Today, shares of Indian listed companies can be held only in a Demat account, since SEBI amended provisions to disallow the transfer of securities in physical form after March 2019.

In terms of foreign investor segments, there are two categories—foreign portfolio investment (FPI) and foreign direct investment (FDI). FPI is a harmonized route that came into effect in June 2014, merging the two existing modes of investments—foreign institutional investment (FII) and qualified foreign investment (QFI). The FPI category is governed by the Securities and Exchange Board of India (Foreign Portfolio Investors) Regulations, 2019, and guidelines specified under FEMA 20 as issued by the Reserve Bank of India (RBI). India has witnessed significant FPI growth in equity markets in the

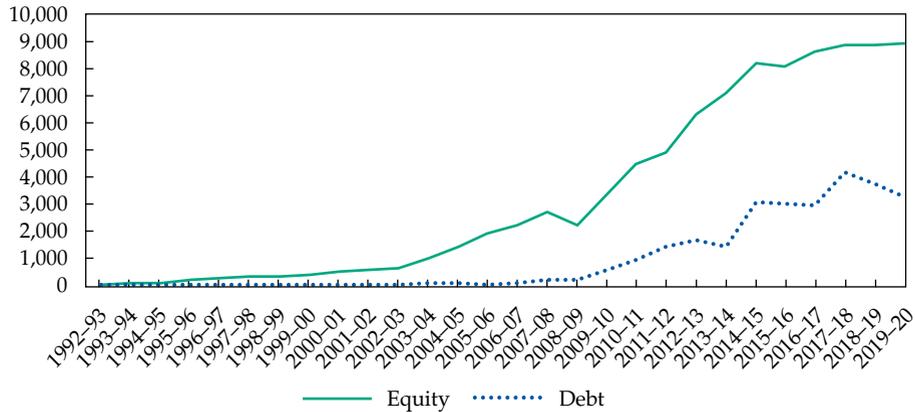
wake of the 2008–09 global financial crisis. Cumulative net investments have significantly increased to almost INR9 trillion (see **Figure 4**). However, foreign investors have certain ownership limits when investing in Indian equities. The aggregate FPI limit for Indian companies is equivalent to the sectoral limits to which the companies belong. Securities are subsequently put on the RBI caution or breach list once the limit is reached and are monitored by Indian central securities depositories, National Securities Depository Limited (NSDL) and Central Depository Services Limited (CDSL).

FIXED INCOME

Indian fixed-income securities consist of four major segments: government securities, corporate and public sector debt, money market securities, and bank and corporate deposits. Government securities (G-secs) constitute the largest and most liquid segment of the Indian fixed-income market. G-secs, along with money market securities, are regulated by RBI, India's central bank, whereas SEBI regulates the corporate debt market.

FIGURE 4. CUMULATIVE FOREIGN PORTFOLIO INVESTMENT INFLOWS SINCE GLOBALIZATION

Cumulative FPI Inflows (INR billions)



Source: NSDL.

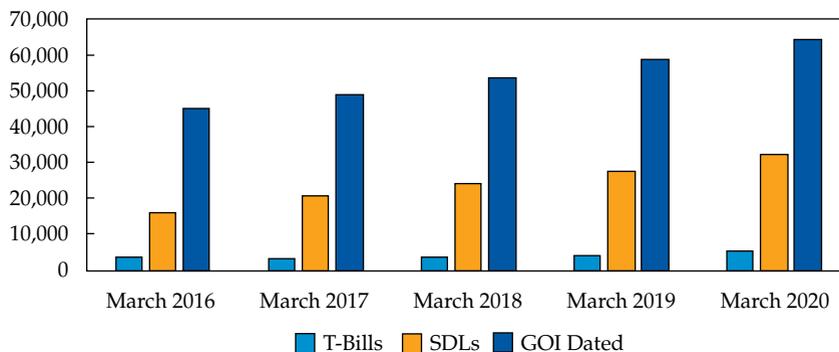
The government security market includes T-bills; cash management bills (maturity less than 91 days); dated G-secs, which are issued by the government of India; and state development loans (SDLs), which are issued by state governments. Of these, dated G-secs constitute the highest share, with more than 40% of the

Indian domestic fixed-income market, followed by around 20% of the market for SDLs (see **Figure 5**).

G-secs have experienced significant growth since the implementation of various structural and policy changes in 2012. They have become

FIGURE 5. OUTSTANDING AMOUNT OF G-SECS

Outstanding G-Sec Issuance (INR billions)



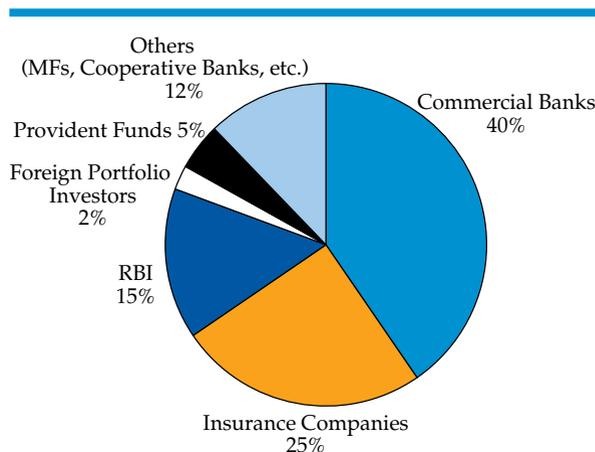
Note: "GOI Dated" represents Government of India dated G-secs; "SDLs" represents State Development Loans.

Source: RBI.

the third largest government debt market in Asia. The introduction of the Negotiated Dealing System (NDS), an electronic trading platform, in 2002 by RBI played a major role in improving the efficiency of the market. Prior to NDS, telephone orders and physical transfer forms, called SGLs, were used for the transfer and settlement of funds. With recent developments, G-secs can now be bought in secondary markets through NDS-OM (NDS Order Matching), OTC markets with NDS-OM reporting, or stock exchanges. The Clearing Corporation of India, established in 2001 for transaction settlement, has been instrumental in reducing the credit risk of participants by assuming the role of central counterparty. Even with these developments, however, the market is fairly skewed toward large institutional investors, with banks, insurance companies, RBI, and other major financial institutions representing a majority of owners (see **Figure 6**). These entities are mandated to invest in G-secs through such regulations as the minimum statutory liquidity ratio. In contrast, the participation of retail investors has remained negligible. Low awareness, high transaction costs for intermediaries, and the availability of similar instruments, such as National Savings Certificates and fixed deposits, have kept them away from this segment. New initiatives—such as NSE goBID (government Bond Investment Destination), an online platform for retail investors to buy G-secs—are aimed at increasing retail investor participation.

India's debt market is among the top four debt markets in Asia. Although it has made efforts to be included in the J.P. Morgan Emerging Market Bond Index, these efforts have yet to bear fruit. Structural weaknesses, including a current account deficit, a large fiscal deficit, and high consumer inflation, are seen as a strong

FIGURE 6. OWNERSHIP OF GOVERNMENT OF INDIA DATED BONDS, AS OF MARCH 2020

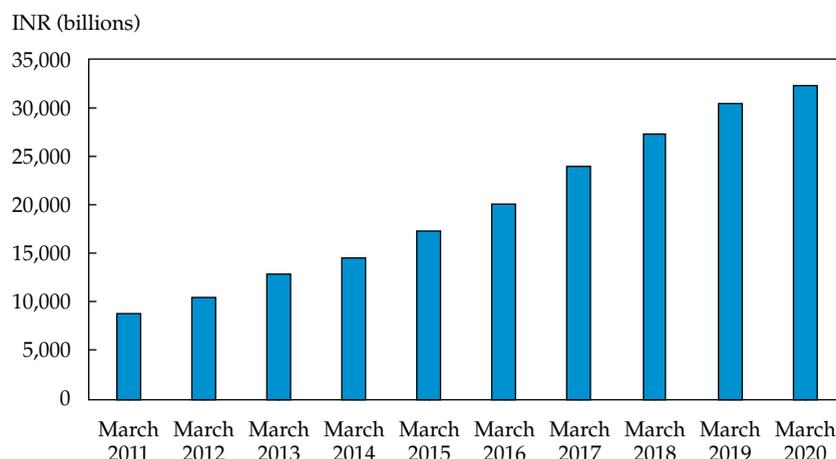


Note: "MFs" stands for "mutual funds."

Source: RBI.

deterrent, even though the large yield spreads and recent reforms may make it attractive for investors.

The recent investments by foreign portfolio investors have remained below 5%, despite the lifting of various restrictions imposed on foreign investors' holdings by RBI in 2018. RBI introduced the Medium Term Framework, which increased the investment limits on G-secs from 5% to 6% over the span of two years, between Fiscal Year 2018 and Fiscal Year 2020. Furthermore, foreign portfolio investors are no longer required to invest in government bonds with a minimum residual maturity of three years, thus allowing them to invest in short-term bonds as well. Additionally, in order to expand its investor base and attract long-term overseas investments, RBI proposed a separate route, called the Voluntary Retention Route, that enables foreign investors to avoid

FIGURE 7. OUTSTANDING AMOUNT OF CORPORATE BONDS

Source: SEBI.

macro-prudent or other regulatory hurdles that exist for FPI. Unlike with the normal route, foreign portfolio investors would have to voluntarily commit to retaining a required minimum percentage of their investments in India for a period of their choice.

The next largest segment, the corporate bond market, consists of bonds issued by public sector undertakings and private corporations. It is much smaller than the government security market in terms of trading volume and size (see **Figure 7**). Its penetration has generally ranged between 15% and 20% of India's GDP. Around 80% of the market in corporate bonds consists of AAA and AA corporate issuances, most of them private placements. Financial sector companies represent around 75% of the total issuance. This market is relatively less developed compared with most developing countries because of the reliance of corporations on banks as the primary source of working capital. In addition, public sector ownership of banks and RBI's regulatory mechanism have prevented the growth of corporate bonds. The absence of a proper reward system

has also hindered the development of well-capitalized financial intermediaries, which causes corporate bonds to have lower liquidity and quality. As a result, retail and institutional investors have stayed away from this market. Furthermore, the quotas on foreign investment make it difficult for foreign institutional investors to effectively participate in this market. The implementation of the Insolvency and Bankruptcy Code, 2016, and a few crucial amendments to RBI's Large Exposures Framework have provided a considerable boost to expand the market with more diverse issuers. However, the demand for such issues has mostly come from mutual funds and insurance products, which represent around 42% of market share, according to a report by CRISIL.² Hence, to attract new investors—including foreign portfolio investors and banks—more reforms are required, including incentives for market makers to improve the liquidity of bonds in the secondary market.

²CRISIL, "CRISIL Yearbook on the Indian Debt Market 2018" (24 October 2018).

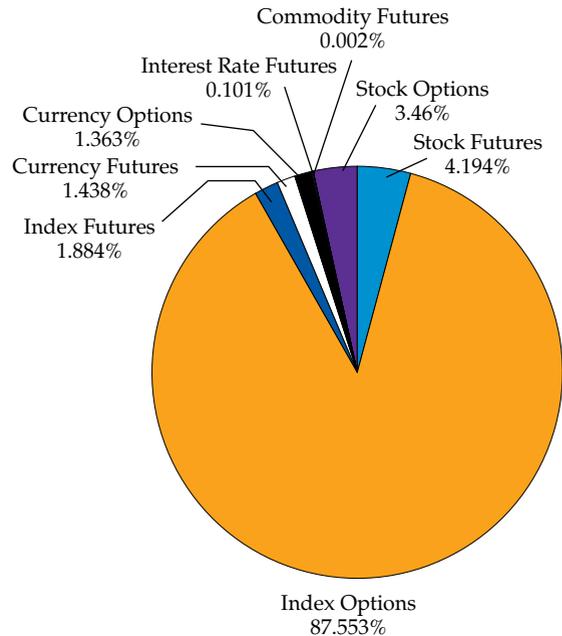
DERIVATIVES

The Indian derivatives market has experienced remarkable growth over the last decade. NSE and BSE are the major exchanges that provide trading in futures and options for indexes, individual stocks, currencies, and commodities. The market started in June 2000 with the trading of index futures contracts on NSE and BSE. Currency derivatives were introduced in 2008.

NSE offers the most liquid segment for index futures (NIFTY 50 and NIFTY Bank), stock futures, index options, and stock options. Its commodity segment, which started in 2018, is still in its nascent stage, with over 140,000 contracts traded on NSE in Fiscal Year 2019–2020. This segment got its start after SEBI allowed the integration of stocks and commodities trading on a single exchange in 2018, enabling NSE and BSE to launch a commodity derivatives platform. Before that, commodity derivatives were traded separately on commodity exchanges, such as MCX and NCDEX. But with the recent merger of SEBI and the Forward Markets Commission, SEBI has now been granted the power to approve trading of commodity derivatives on major exchanges.

Today, NSE is the world's largest exchange by the number of contracts, notching more than 6 billion contracts in 2019–2020. NSE's index options on NIFTY 50 and NIFTY Bank have a share of over 87% by turnover in the financial year 2019–2020 (see **Figure 8**). Interest rate futures and commodity derivatives, in contrast, represent a marginal portion, with shares of 0.1% and 0.002%, respectively. All options available on NSE are European style and can be exercised only at expiration.

FIGURE 8. TURNOVER OF OPTIONS AND FUTURES ON NSE, 2019–2020



Note: Only notional turnover is considered for options.

Sources: NSE; authors' calculations.

CHALLENGES AND OPPORTUNITIES

The principal capital market regulator, the Securities and Exchange Board of India, has taken a series of steps to not only protect the interest of investors but also foster innovation and entrepreneurship in the capital markets. Chief among them is to initiate steps to strengthen corporate governance in listed companies by implementing the Kotak Committee on Corporate Governance report. SEBI has also initiated steps to make trading more transparent

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by strengthening compliance to prevent the misuse of client funds by brokers. Recently, auditors have tried to escape scrutiny by resigning from companies believed to be in violation of various corporate laws. The regulator has initiated steps to ensure auditors do not escape their responsibility. Coordination among the various regulators has also improved through the Financial Stability and Development Council.

Notwithstanding these very welcome and path-breaking reforms, challenges remain, including the following:

1. Identify areas of regulatory multiplicity because India is handicapped by having several regulators, including the Reserve Bank of India, the Insurance Regulatory and Development Authority, the Pension Fund Regulatory and Development Authority, and the Insolvency and Bankruptcy Board of India.
2. Expand the bond markets beyond government securities and AAA rated bonds. Doing so would require freeing up and professionalizing the investment management arms of the Employees' Provident Fund Organisation and dismantling the rigid investment pattern mandated by the government. Also, certain supply-side measures, including clarity on stamp duty, securitization of assets, and recovery of assets through a fast-track mechanism, can lead to a much broader and deeper bond market.
3. Recognize exchange-traded funds as distinct from mutual funds, and create a separate set of regulations to encourage acceptance of and expand the market, which currently represents around 18% of the market share in India, compared with more than 40% in developed markets.
4. Improve incentives for foreign companies to list in India.
5. Identify steps to expand the commodity markets in India. In the past, political calculations and farm lobbyists have prevented the commodity markets from being adequately developed.
6. Make investments in companies listed abroad seamless.
7. Create an environment for growth of the fintech space across the capital markets. Although growth in this sector is rapid and adequate capital seems to be available, there is a lack of clarity on the regulations and a multiplicity of regulators.

India has a young population, a fast-growing economy, and widespread access to the internet, but regulations need to become clear and precise and the red tape eased to fully reap the benefits of the demographic dividend and help India achieve the goal of becoming a US\$5 trillion economy.