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India's Capital Markets

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FOREWORD

India is one of the fastest growing economies in Asia with an average real gross domestic product (GDP) growth rate of 7.3 percent over the last three years. The International Monetary Fund (IMF) predicts the economic growth rate will increase to 7.9 percent from 2018 to 2023. One of the main drivers of the higher growth is India's huge population of over 130 million with a high ratio of working-age population to total population. The United Nations expects the demographic bonus period will continue until around 2040, enabling the country to achieve high economic growth over the long term.

India's economy had been facing high inflation, large current and fiscal deficits, a currency depreciation, and lack of investment before 2014. However, the situation has improved with various structural reforms initiated by Prime Minister Narendra Modi after he took office in May 2014. Under so-called Modinomics, regulations on foreign direct investment have been eased, and the Goods and Services Tax (GST) was introduced to harmonise the tax system across the country, significantly improving the business environment in India. India ranked 100th in the World Bank's ease of doing business index in 2017, up from 142nd place in 2014.

In November 2016, the government implemented a demonetisation program to tackle black money and drive India towards a cashless economy. A large amount of money flowed into the mutual fund market due to the demonetisation, which pushed up stock prices. In December 2016, the government brought the Insolvency and Bankruptcy Code into effect to accelerate the disposal of non-performing assets by financial institutions. The introduction of this code is expected to contribute to the development of the corporate bond market.

Promoting infrastructure development is also one of the key initiatives under Modinomics. Although the government budget is the main source of funds for infrastructure projects, mobilising private capital is crucial to address India's enormous financing needs. Furthermore, capital markets are becoming more important sources for infrastructure financing in order to avoid concentrating risk in the financial system. Foreign investors can play a more active role in providing stable long-term capital to India's capital markets. International Financial Services Centre set up within Gujarat International Finance Tec-City (GIFT) is expected to attract more foreign investments in the medium and longer term.

In November 2017, Moody's raised India's sovereign rating by one notch, confirming the progress made by Modinomics. The higher rating may increase the issuance of both government bonds and corporate bonds. Moreover, the number of investors in India's capital markets is expected to increase with the expansion of the middle-class driven by the growing national income. In this way, structural reforms will catalyse capital market activities and in turn the latter will promote the former with the result that a virtuous cycle can be created.

Thus far, *Nomura Journal of Asian Capital Markets* has focused on recent capital market trends mainly in the ASEAN region. With this issue, the journal turns attention to South Asia, featuring the capital markets of India, which are currently attracting global interest. The articles in the following pages cover India's equity market, bond market, asset management industry, and corporate governance.

SAION MUKHERJEE

Nomura Financial Advisory & Securities (India)

Modinomics and its Impact on India's Capital Markets

Pre- Modi Phase: India Among the Fragile Five

Prior to 2014, when Prime Minister Modi's government came to power, India's economy witnessed a phase of low growth and high inflation. In the period FY2011-2014, real gross domestic product (GDP) growth had slowed to 5.7 percent compound average growth rate (CAGR), down from 8.2 percent over FY2007-2010. This was accompanied by high inflation. Wholesale price inflation reached its peak at 9.6 percent year-on-year in FY2011-2012. GDP growth was supported by high imports and heavy dependence on external debt, leading to sustained deterioration in current account deficit (CAD) as well as currency deprecation. CAD as a percent of GDP was at a low in FY2012-2013. The real effective exchange rate for Indian Rupee (INR) fell two percent over FY2011-2014 compared to a three percent appreciation between FY2007-2010. External debt rose to 24 percent of GDP in FY2013-2014, the highest since FY1996-1997. High inflation, large trade deficits and poor currency management led the Reserve Bank of India (RBI) to raise rates by a cumulative 2.75 percent points over FY2010-2014. The unstable macroeconomic conditions led to a sell-off in bond markets with 10-year government bond yields rising 1.8 percent points between FY2010-2014.

On the policy front, populist measures dominated market-friendly and sustainable growth policies. These included: (1) excessive Minimum Support Price hikes for farm produce leading to soaring food inflation and implying limited benefit even to farmers in real terms, (2) retrospective taxation undermining investor confidence, and (3) Land Acquisition Act of 2013, which made the land acquisition process expensive and cumbersome. In fact, the number of projects stalled, shelved, or abandoned was at a high during the period from 2011 to 2014.

Currency weakness, soaring current account deficit and lack of investment led to slowdown in economic growth. In August 2013, India was one of the Fragile Five economies including Turkey, Brazil, South Africa and Indonesia.

Thus, the Modi government took charge of the country when the economy was under tough conditions.

Modinomics: A Long Run Sustainable Growth Story

Since then, there has been a radical shift from a focus on short term income gains to policies focused on long term, sustainable development. We describe some of these key policy initiatives by the incumbent government in three key areas: (1) social/developmental policies, (2) market- and investment-friendly policies, and (3) fiscal reforms.

Social/Developmental policies

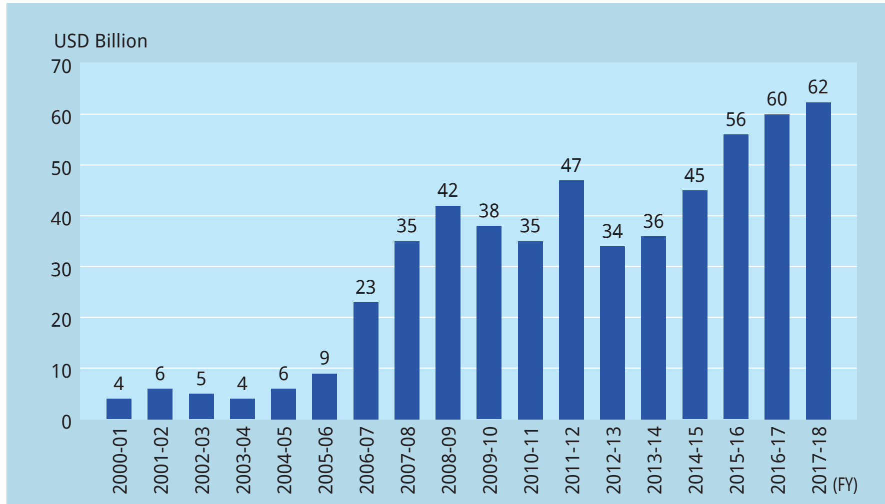
- **Provision of basic amenities:** The Modi government has remained focussed on welfare schemes that help boost the standard of living for the low-income class in a sustainable manner. The key focus areas are construction of houses for low income classes in rural and urban areas, construction of roads, and provision of gas (LPG) and electricity[*1]. The housing scheme aims at providing a *pucca*[*2] house, with basic amenities, to all homeless people or to those living in *kutcha*[*3] houses, by 2022. The target of the road construction scheme is to provide transportation connectivity to unconnected habitations. The pace of road construction has picked up significantly post FY2013-2014. About 48,660 kilometres of road connecting close to 11,500 new habitations were completed during FY2017-2018. In FY2017-2018, average daily pace of construction reached 134 km compared to only 73 km per day during FY2011-2014. The scheme for providing LPG connections to women from below poverty line households helps reduce the use of traditional cooking fuels that cause pollution and adversely affect health of women. The government's current target is 80 million LPG connections by 2020, which has been raised from the previous target of 50 million. So far, 41 million connections have been established.

- **Financial inclusion:** The government instituted the Pradhan Mantri Jan Dhan Yojana (PMJDY), a scheme to ensure at least one basic banking account for every household, improve financial literacy, provide access to credit, insurance and pension facilities. All bank accounts opened under the scheme are to have an overdraft facility of INR 5,000 for *Aadhar*-linked accounts after satisfactory operation in the account for six months. In addition, the beneficiaries would get a RuPay Debit card having inbuilt accident insurance cover of INR 100,000 and a life cover of INR 30,000. The accounts will also be used for transferring all government benefits including the Direct Benefit Transfer.

  As of March 2017, the almost 315 million accounts under this scheme make up about 17 percent of the total number of accounts with scheduled commercial banks. These accounts have actually led to an increase in financial inclusion. The average balance in such accounts has increased from INR 800 in December 2014 to INR 2,500 in April 2018. The results of an empirical study conducted by researchers also show that activity in these accounts catches up to non PMJDY accounts overtime. *[4]

- **Digitalisation:** There has been increased focus on digitalisation under the current government. A unique identification number has been provided to all individuals called *Aadhar*. All accounts including bank accounts (including *Jan Dhan* accounts), pension accounts and other government services can be accessed using this identification number. A digital platform called *Umang* (Unified Mobile Application for New-Age Governance) has integrated several government services online through the *Aadhar* number. For all the key schemes initiated by the government, online platforms have been developed. These not only provide information about the scheme but allow users to apply online and access their benefits. Also, these websites provide details about the progress of the schemes' execution. This system improves efficiency as it reduces the amount of paper documentation work and follow-up with government officials necessary to access the benefits of government schemes. Also, it improves transparency and provides a system for monitoring and control for better execution. The government has also initiated *BharatNet*, a scheme aiming to provide internet connectivity in rural areas. This initiative is likely to facilitate better flow of information to rural areas, which would provide such benefits as better information on agricultural techniques for farmers, improved information about government schemes for the rural population, and increased participation in these schemes.

Figure 1: FDI Net Inflows



Source: Department of Industrial Policy & Promotion

Market- and investment-friendly policies

The Modi government has undertaken several pro-market reforms which have helped enhance efficiency in the system, improved investor confidence in the economy, and helped attract foreign capital flows.

- **Foreign direct investment liberalisation:** Foreign direct investment (FDI) is an important driver of economic growth and a source of non-debt finance for the country's development (Figure 1). The incumbent government has taken several measures to allow FDI inflow through the automatic route*[5] and simplify the foreign investment process. According to the Press Information Bureau of India, in 2018, FDI policy reforms have been adopted in a number of sectors including defence, construction development, insurance, pension, other financial services, asset reconstruction companies, broadcasting, civil aviation, pharmaceuticals, and single brand retail trading.

- **Ending retrospective taxation:** In 2012, the Income tax Act of 1962 was amended with a retrospective effect. This meant that the government had the power to take back taxes due going back to 1962. This hurt investor sentiment due to tax uncertainties for Indian firms. The Modi government ended this overhang by ensuring that no new cases of past taxes due would be opened and that ongoing cases would be resolved quickly.

- **Insolvency and Bankruptcy Code:** The accumulating non-performing assets in the banking sector were hurting lending activities by banks. Before the Insolvency and Bankruptcy Code (IBC), there was no single or comprehensive law in India to deal with bankruptcy. Liquidation and reorganisation were complex processes, with four agencies, namely the relevant High Courts, the Company Law Board, the Board for Industrial and Financial Reconstruction, and Debt Recovery Tribunal having overlapping jurisdictions, resulting in delays. In the World Bank's Ease of Doing Business report, India is ranked 103rd in terms of resolving insolvency. The recovery rate in India for insolvency is just 26.4 percent, and the recovery process takes around 4.3 years to resolution. The IBC allows creditors to assess the viability of a debtor as a business decision and agree upon a plan for timely revival or liquidation. The code puts in place an institutional framework that consists of a regulator (the Insolvency and Bankruptcy Board of India), insolvency professionals, information utilities (those who collect and disseminate required financial information), and adjudicatory authorities, such as the National Company Law Tribunal. Some of the IBC's important features are: changing the insolvency test from "erosion of net worth" to "payment default", shifting control from the shareholder and promoters to creditors, and significantly changing the priority for distribution of liquidation proceeds. Secured debt and workmen's dues are the first priority. Government dues stand below the claims of other unsecured financial creditors, unlike in the past. The IBC envisages a time-bound process for resolution. According to the quarterly newsletter by the Insolvency and Bankruptcy Board of India, of the 701 cases admitted under the IBC from the first quarter of 2017 to the first quarter of 2018, 176 cases have reached resolution decision.

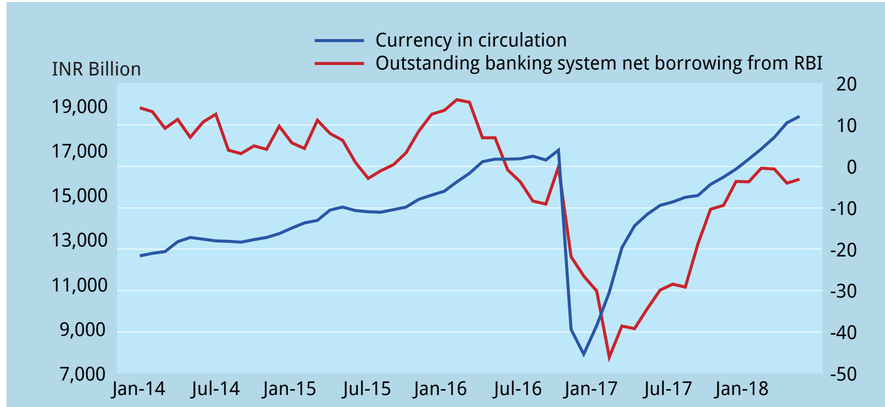
- **Enforcement of the Real Estate Regulation Act:** The Real Estate Regulation Act (RERA) has been enforced by the government to protect the interests of home buyers and enhance transparency and accountability in real estate transactions.

Fiscal reforms

- **Formalisation of the economy:** Implementation of a Goods and Services Tax (GST) was an important move towards expanding the tax base, preventing tax evasion, and formalising the economy. It brought transactions involving almost all goods and services under the umbrella of a single unified taxation regime thus reducing inefficiencies in tax collection and expanding the tax base. India's tax-to-GDP ratio, currently at 18 percent, is lower than that in other emerging markets. GST should lead to improvement in this ratio. Increased tax collections are likely to help achieve fiscal discipline. To further aid the process the government introduced the e-way bill system which is an online platform for filing GST returns. This system has reduced documentation procedures and thus helped reduced the cost and increase the efficiency of transportation of goods and services.

- **Privatisation of unprofitable public sector undertakings:** The government initiated and accelerated the process of privatisation of unprofitable public-sector undertakings. According to The Economic Times, the central government is preparing to lower its stake in all central public-sector enterprises to 49 percent in three years, except in strategically important sectors including defence and oil and gas.

Figure2: Normalisation of Currency in Circulation and System Liquidity to Pre-demonetisation Levels



Source: Centre for Monitoring Indian Economy, RBI, Nomura Research

Demonetisation

One of the key policy measures implemented by the government was demonetisation. In November 2016, the government announced demonetisation of INR 1,000 and INR 500 currency notes. This was expected to a cause permanent shift of liquidity to the banking system, thereby increasing the capital base for lending and reducing rates. However, a review of currency in circulation suggests that the total currency in circulation is moving back towards its trend levels, as indicated in Figure 2. Hence, the positive impact of demonetisation seems to be diminishing.

Implications for Capital Markets

The reforms undertaken by the Modi government positively impact the country's capital markets in two ways: a) improving the outlook for growth and b) reducing the cost of capital. The reforms have a positive socioeconomic impact. They support long term sustainable growth without fuelling inflation. Since most of the reforms target the rural population, they have a positive impact on economic growth in those areas. The investment in housing and road construction and provision of electricity is gathering momentum. We are also witnessing gradual pick up in consumption in the rural areas, which we believe can accelerate further.

The government reforms have also led to an overall lowering of the cost of capital. In our assessment, the following specific reforms have played a key role.

- The government has largely stuck to fiscal discipline thus far, which has a positive impact on government bond yields and helps lower the cost of funding throughout the system.

- The implementation of IBC significantly enhances comfort on lending as it promises a timely resolution process in case of default.

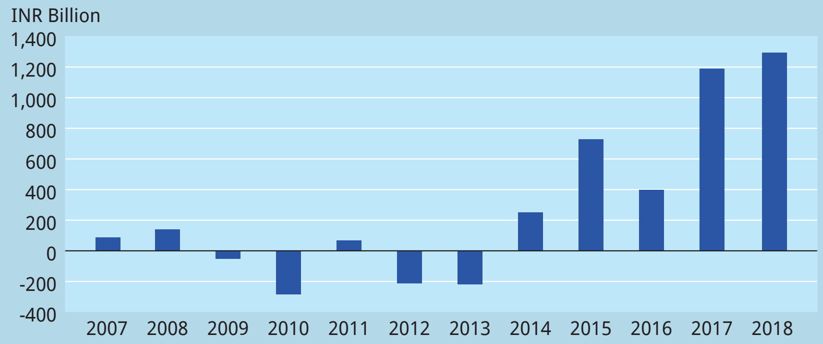
- Implementation of reforms like the GST and digitisation has brought about greater transparency and formalisation in the economy. This, we believe, should lead to better operational and financial efficiency (for instance, by lowering the working capital requirement). Further, this should lead to increased confidence on the part of lending institutions.

- Financial inclusion allows people and smaller businesses to have access to formal financial institutions. This lowers the overall cost of borrowing. In smaller towns and rural areas there is heavy dependence on informal financial channels like moneylenders, who lend at exorbitantly high rates.

- Historically most savings in India were invested in real estate and gold. These were considered safe havens for undisclosed or "black" income. Now, there is greater government scrutiny of these investments. As a result, we expect more savings to be channelled into productive sectors through financial institutions and markets. We have witnessed unprecedented inflows into mutual fund schemes (Figure 3).

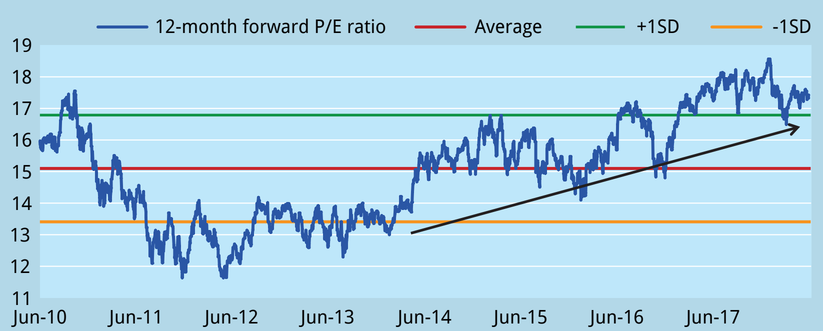
- The structural reforms have helped improve the confidence of international investors. For instance, India has jumped 42 places in the World Bank's ease of doing business ranking. Moody's also upgraded India's credit rating outlook after almost 14 years. Investor sentiment has improved. India has surpassed China in net FDI inflow as percent of GDP. Indian markets have re-rated since 2014 with 12-month forward price/earnings (P/E) multiples now close to their all-time highs (Figure 4). Notably, the inflows into Systematic Investment Plans have increased and have persisted even in times of market underperformance.

Figure 3: Mutual Fund Equity Net Inflows



Note: 2018 figures are annualised using figures as of 21 June 2018.
Source: Association of Mutual Funds in India

Figure 4: NIFTY: 12-month Forward P/E Ratio



Note: 1. As of 26 June 2018.
2. SD stands for standard deviation.
Source: Bloomberg

Notes

*1 The scheme for the construction of houses for low income classes in rural and urban areas is called "Pradhan Mantri Awas Yojana". The scheme for construction of rural roads is called "Pradhan Mantri Gram Sadak Yojana". The scheme for provision of LPG is called "Pradhan Mantri Ujjawala Yojana". The scheme for rural electrification is called "Saubhagya". The scheme for financial inclusion is called "Pradhan Mantri Jan Dhan Yojana".

*2 Houses made with high quality materials throughout, including the floor, roof, and exterior walls.

*3 Houses made from mud, thatch, or other low-quality materials.

*4 Chopra, Yakshup, Prabhala, Nagpurnanand, and Tantri, Prasanna. (2017) "Bank Accounts for The Unbanked: Evidence from a Big Bang Experiment." https://www.bentley.edu/files/2017/04/04/pmjdy_final.pdf

*5 Foreign direct investment does not require prior approval from the Government of India or the Reserve Bank of India under the automatic route.

SAION MUKHERJEE

Managing Director and Head of Equity Research, Nomura Financial Advisory & Securities (India)

Saion Mukherjee is Managing Director and Head of Equity Research for Nomura India. He covers India's healthcare and pharmaceuticals sectors. Saion has over 10 years of experience in India's equity markets and has been ranked among the top 3 analysts by Indian Investors in the Healthcare segment (Rank # 1 in 2011, Rank # 3 in 2012, 2013 & 2014. Saion joined Nomura in October 2008 from Lehman Brothers where he covered the pharmaceuticals and construction sectors. He has completed his Post Graduate Diploma in Business Management (PGDBM) from the Indian Institute of Management Ahmedabad and also holds an engineering degree in chemistry from the Indian Institute of Technology Delhi.

VIKRAM KURIYAN
Indian School of Business

BITAN CHAKRABORTY
Indian School of Business

TUHIN HARIT
KPMG Corporate Finance

Overview of the Asset Management Industry in India

Introduction

India is expected to be the third largest economy in the world by the close of the third decade of the 21st century,[*1] next only to the U.S. and China. Compared to a relatively muted world average annual gross domestic product (GDP) growth rate of 3.5 percent since 2012,[*2] India's GDP has grown at an average pace of nearly seven percent during the same period,[*3] making it one of the fastest growing economies in the world. Concomitant with a growing economy, incomes have risen and have led to higher levels of consumption and savings. Gross national savings stood at USD 720 billion for FY2016-2017,[*4] nearly 32 percent of the gross national disposable income – a very high savings rate when compared with the developed world.

Despite this very high level of savings, banks and insurance companies, such as the government-controlled behemoth Life Insurance Corporation of India (LIC), are the preferred routes for depositing financial assets by a majority of individuals and not the 41 asset management companies that are currently operating in India. This bears testament to the fact that the asset management industry is still in relative infancy. At the end of March 2018, assets under management (AUM) of mutual funds in India stood at USD 350 billion.[*5] Although the banking sector dominates India's financial asset milieu, holding nearly 70 percent of financial assets,[*6] rising incomes provide ripe opportunities for the asset management industry to expand their pie, which is further bolstered by regulatory tailwinds, positive macroeconomic outlook and favourable demographics.

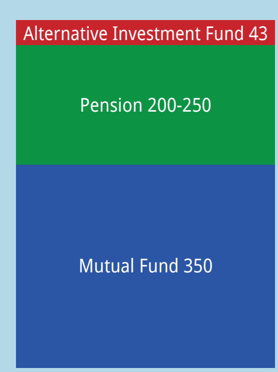
The demographic distribution of the population of India is a major asset – with a young and growing population – that was earlier seen as a Malthusian liability. India's middle class base is one of the largest in the world. The steadily increasing number of high net worth individuals (HNWIs) is also younger in average age than their western counterparts. Also 41 percent of them have their financial assets parked outside of India[*7] and a significant fraction of these assets could come back to India as the "home-bias" characteristic of developed markets takes place. This trifecta of underserved HNWIs, an expanding middle class that aspires for a better financial future, and woefully low penetration of mutual funds in India, offers immense latent opportunities for growth.

The Indian asset management industry in 2018 is about USD 550-650 billion, which is a small fraction of the global asset management industry, and is one of the worlds' fastest growing.

Ignoring pension funds, which are still some distance from being 100 percent professionally managed, mutual funds are the largest component of India's asset management industry (Figure 1).

Aside from the above mentioned professionally run companies, insurance companies manage massive asset portfolios for themselves, comprising primarily of debt and equity securities. Due to rapid technological penetration, the sector, in terms of insurance premium, is expected to grow at an annual rate of 49 percent[*8] to reach USD 280 billion by 2020. As of the end of March 2017, life insurance had the majority market share of 77 percent, and was dominated by LIC. Owing to their co-

Figure 1: India's Asset Management Industry Size in 2018 (USD Billion)



Note: Pension includes the AUM of only Employees' Provident Fund Organisation and National Pension System.
Source: Various sources compiled by authors

pious cash cycle, these companies are also one of the largest investors in Indian capital markets. As of the end of March 2017, the AUM of the life insurance industry was USD 497 billion*[9] of which 72 percent was parked in fixed income instruments.

A large proportion of investors in mutual funds are institutions – corporations, banks and foreign institutional investors (FIIs) (Figure 2). However, as technology and the internet have made it easier than ever to invest, the proportion of individual investors is expected to increase in the future.

Evolution of Asset Management in India

Mutual funds

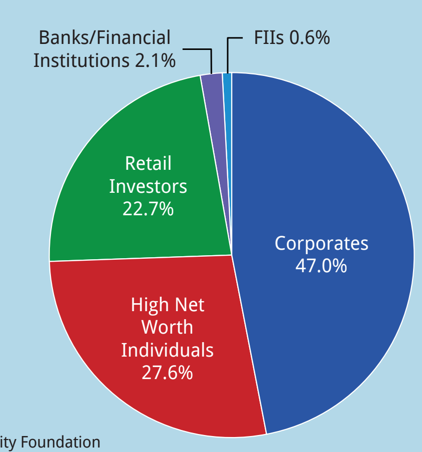
The mutual fund industry forms the lion's share of the entire asset management industry in India and has come a long way today since its humble beginnings over 50 years ago.*[10] Unit Trust of India (UTI) was established in 1963 through an act of parliament to operate under the aegis of the Reserve Bank of India (RBI). In 1964, the first mutual fund product was launched and until 1987, when a wave of public sector undertakings (PSUs) jumped onto the mutual fund bandwagon, UTI managed a paltry USD 1.22 billion. Economic liberalisation in the early 1990s saw India shedding the shibboleth of the "Hindu rate of growth" by which growth stagnated at around three to four percent per annum. With liberalisation, many private players entered into the fray and started offering varied investment products, many of which were tailor-made to a specific investor segment, based on a multitude of factors such as age, risk appetite, and sector preferences. As financial literacy increased among the masses, so did the propensity to seek out investment vehicles other than bank deposits. The last few years, from 2015 to 2018 in particular, saw tremendous inflows into mutual funds. Growth in mutual fund investment in India outpaced that in the rest of the world. *[11]

Such growth has likely come about due to the interplay of structural reforms, regulatory push and favorable macroeconomic conditions. The last quarter of 2016 saw demonetisation due to which an unprecedented amount of currency in circulation was declared null and void. As nearly USD 230 billion of defunct currency made its way into the formal banking network, bringing a sizable segment of the population under the scanners of the government, new avenues of investments that save on taxes and generate high returns, gained traction. Returns from traditional avenues such as gold and real estate, that used to witness large cash flows, waned post-demonetisation. As if on cue, mutual funds saw a veritable jump in inflows and penetration, within a year after demonetisation.*[12] The period also saw a long bull run in equity markets as mutual funds, now flush with cash, poured money into equities.

Mutual funds generally offer three distinct categories of products: closed-ended, open-ended and exchange traded funds (ETFs). While the distribution of fund schemes between closed- and open-ended categories is slightly skewed towards the closed-ended, the rupee value of the assets is heavily skewed towards open-ended. Open-ended mutual funds account for over 98 percent of all assets managed by the mutual fund industry in India.*[13] Furthermore, 88 percent of the AUM is divided among debt (38 percent), equity (36 percent) and liquid money market (13 percent) funds, and corporates, HNWIs and retail investors account for almost the entire pie of investors.*[14]

The growth in closed-ended funds has stalled following Association of Mutual Funds in India (AMFI) directing fund houses to cap upfront commissions at one percent. This, coupled with subpar performance as compared to their open-ended peers, has led to a decline in the launch of new closed-ended schemes since 2015.*[15]

Figure2: Breakdown of Mutual Funds by Investor Type



Note: As of June 2017.
Source: India Brand Equity Foundation

Pension funds

India's pension system is a complex web consisting of multiple options with varying eligibilities. Civil servants and government employees were awarded pension benefits in 1881 under the Royal Commission on Civil Establishments Act.*[16] The Government of India Acts of 1919 and 1935 made further provisions. Under these schemes, entire pension expenditure was charged in the annual revenue expenditure account of the government, thus in a way, cross-subsidising government employees over private ones. Private workers had limited options in terms of pension coverage. However, this changed with the formation of the Employee Provident Fund Organisation (EPFO) in 1952 and the launch of the Public Provident Fund (PPF) in 1968.

EPFO offers three schemes: (i) Employee Provident Fund (EPF), 1952; (ii) Employees' Deposit Linked Insurance Scheme (EDLIS), 1976; and (iii) Employees' Pension Scheme (EPS), 1995. While EPF and EPS invest in a variety of capital market instruments, EDLIS is primarily an insurance scheme. PPF is guaranteed by the government and the corpus is invested on various government schemes and programs.*[17]

The National Pension System was launched in 2004 by the Government of India in order to de-emphasise defined benefit pension plans and move to defined contribution plans. The National Pension Scheme (NPS) and EPFO employ professional fund managers.

Alternative investments

- Private equity (PE) and Venture capital (VC): The need for VC was first highlighted by the government committee on development of small and medium entrepreneurs (Bhatt Committee)*[18] in 1972. In 1973, the efforts of the Indian government to provide risk capital led to the formation of the Risk Capital Foundation.*[19] In 1986, the Technology Development Fund was formed from a tax levied on technology imports, as suggested by the budget of 1986.

The first venture capital company in India was Technology Development and Investment Corporation of India (TDICI) formed in 1986 with a view to achieve long term capital gains by investing in companies with high earnings and growth potential. Securities and Exchange Board of India (Venture Capital Funds) Regulations of 1996 freed the industry from bureaucratic hassles.*[20] Securities and Exchange Board of India (Foreign Venture Capital Investor) Regulations, 2000 enabled foreign venture capital investors to register with the Securities and Exchange Board of India (SEBI) and enjoy certain benefits. In 2012, the Alternative Investment Funds (AIFs) Regulations came into effect and proved to be a milestone for the industry. As per the act, VCs and PEs are regulated under Category I and II AIFs respectively. The act further defined the tenure of VC/PEs to be a minimum three years. It also allowed for the formation of angel funds as a special category of VC funds and defined these as funds which pool money from angel investors having net worth of at least USD 1.5 million or net tangible assets of USD 0.3 million. VC and PE investment in India were USD 32.5 billion in 2017, a year-on-year increase of 47 percent and a compounded increase of 21 percent over last five years.*[21]

- Hedge funds: In 1993, SEBI issued regulations and rules governing portfolio managers who pursuant to a contract or arrangement with clients, advise clients or undertake the management of portfolio of securities or funds of the client. Hedge funds were not allowed to operate as they did not come under the excluded category of FIIs, by virtue of their not being regulated in their place of incorporation. By FY2003-2004, some foreign hedge funds began investing in offshore derivative instruments (P-Notes) issued by FIIs against underlying Indian securities. However, the Indian hedge fund industry began only in 2012, after the introduction of the AIFs regulations by SEBI.*[22] They were regulated under the Category III that included alternative funds that engage in the use of leverage and could be either open- or closed-ended. However they were not allowed a tax-pass-through status*[23] – a serious impediment to the growth of the hedge fund industry.
- Real estate investment trusts (REITs) and infrastructure investment trusts (InvITs): SEBI introduced the first draft of regulations for REITs in 2008, but later withdrew that version to make way for real estate mutual funds.*[24] In 2013, they again released the draft regulation on REITs, but later held back due to ambiguity in the tax structure. Finally, in July 2014, the government introduced tax incentives for REITs and in August of the same year, SEBI approved the setting up of REITs in India.

REITs are set up as trusts under Indian Trust Act, 1882 and are registered under the Securities and Exchange Board of India (Real Estate Investment Trusts) Regulations 2014. Minimum asset size to be proposed by REITs is prescribed as USD 80 million and minimum initial public offering (IPO) offer size is prescribed at USD 40 million. A REIT has to mandatorily distribute at least 90 percent of its net distributable cash flows on a half-yearly basis.*[25] Further, the REIT assets are mandated to be situated within India and cannot include hospitals, hotels, and other infrastructure such as special economic zones.

Products Offered by Asset Managers

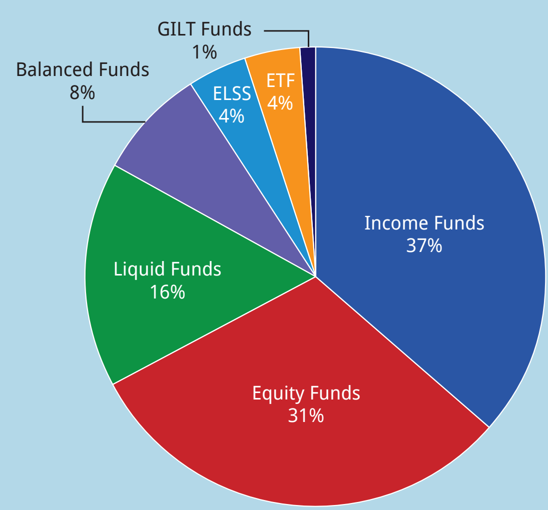
Mutual funds

In March 2018, 41 distinct providers of mutual funds offer a total of 1,998 schemes to investors.*[26] In addition to debt, equity and hybrid schemes, they also offer tax saving schemes such as Equity Linked Saving Schemes (ELSS). In terms of kinds of funds, the majority are income funds and equity funds, followed by money market funds (Figure 3).

ETFs

The analysis of publicly traded instruments would remain incomplete if it did not touch upon ETFs. These are essentially "marketable securities that track an index, a commodity, a bond or a basket of assets

Figure 3: Breakdown of Indian Mutual Funds by Type



Note: As of March 2018.
Source: AMFI

like an index fund." The major differences between a mutual fund and an ETF are that ETFs are publicly traded on stock exchanges just like stocks and bonds whereas mutual funds are not, and ETFs look to track or emulate an index/benchmark whereas mutual funds strive to beat a benchmark. The singular advantage of ETFs is transparency – the investor at all times knows the exact composition of her portfolio.

ETFs were first introduced in the U.S. in the year 1993 in the form of S&P SPDR, but they did not garner much attention from investors. But once they did, volumes swelled and today ETFs have over USD 5 trillion worth of AUM globally.*[27] In India, ETFs had a late entry in FY2001-2002 with the Nifty BeES. Growth during the initial decade was tepid and in 2011 BeES was sold to Goldman Sachs, which in turn sold their mutual fund business to Reliance Nippon Life in 2016.*[28] Now, many Indian asset management firms including ICICI Prudential Asset Management, Kotak Mahindra Asset Management and HDFC Asset Management, have launched ETFs. The muted growth of the Indian ETF industry in the early years could be attributed to the superior performance of actively managed funds, the tax-advantaged treatment of mutual funds in India, commission and fee squeeze in passively managed instruments dis-incentivising further offerings by fund houses in the category, and the behavioral bias of Indian investors toward buying investments from distributors rather than directly investing in products from stock exchanges.

But the gradual movement towards passively managed products globally has had spillover effects in India too. As of the end of March 2018, the ETF market size in India is nearly USD 12 billion, clocking an average growth of 43 percent since 2012.*[29] While the initial leanings of investors were towards the gold ETFs, equity ETFs are now experiencing phenomenal growth. This can be ascribed to the EPFO's investment in equity ETFs since 2015 and the government's plan to offload its PSU holdings through this route.

Pension funds

Among the available schemes under EPFO, EPF is the largest. Presently EPF is mandated to invest a minimum 45 percent to a maximum 50 percent of accumulated funds in government securities, 35-45 percent in debt securities, under five percent in money market instruments, 5-15 percent in equity instruments and ETFs and five percent or less in asset backed securities (ABS).*[30] EDLIS, being an insurance scheme, maintains a deposit linked insurance fund account and all expenditure and subsequent claims are credited and debited to this account.*[31] As of March 2018, EPFO had 50 million subscribers and an AUM of USD 168 billion.

As of March 2018, there were 11.5 million subscribers under NPS and it had an AUM of USD 35 billion.*[32] In a country of 1.3 billion, this is a miniscule percentage and hence a lot of growth is expected in the future. The investments in NPS are regulated under the Pension Fund Regulatory and Development Authority (PFRDA) guidelines. As of 2017, these guidelines allowed NPS corpus to be invested in government securities, listed debt and equity securities, mutual funds and alternative asset classes including AIFs (Category I and II only), REITs, ABS, and InvITs.*[33]

AIFs

As per Securities and Exchange Board of India (Alternative Investment Funds) Regulations, 2012, the minimum investment allowed in AIFs (other than angel funds) is USD 152,000. Further, as per the latest guideline, the minimum investment for fund-based activities by a foreign investor is USD 20 million.*[34] Also, an AIF is required to have a minimum corpus of USD three million. For angel funds the minimum corpus is USD 1.5 million.

- PE and VC funds: VC funds typically invest in early stage unlisted companies, mainly in the form of equity, while PE funds typically reduce the risk profile by investing slightly later, and prefer a leveraged investment. While PEs tend to invest in a wider range of sectors than VCs, lately an emphasis on certain sectors that have the potential to scale has been visible in PE investments as well. Over the years, Indian VCs have invested in variety of sizes,*[35] starting from a few thousand dollars to many millions of dollars. PE investments are typically much larger and in more mature companies. Both VCs and PEs are finite life, closed-end funds.
- Hedge funds: Globally, hedge funds typically use myriad active investment approaches. In India, however, most funds invest in equities – either in a concentra ted long bias (unlike mutual funds which by regulation need to be diversified) or with the ability to go long and short (unlike the mutual funds which cannot go short) typically using equity futures.
- REITs and InvITs: REITs and InvITs are new instruments in India. They essentially function as mutual funds, except that SEBI requires them to be listed through an IPO. The minimum investment by a strategic investor is set at five percent of the offering while the maximum is 25 percent.*[36] REITs are generally securitised under a waterfall structure in which securities of successively higher risk are created, each guaranteed by the cashflow leftover from distribution to the preceding lower risk security. This way investors of different risk appetite can be tapped. In case of REITs, these security classes are created not just synthetically, but also by having underlying assets of different risks; for example, residential REITs are generally considered riskier than commercial REITs due to their distributed nature as well as financial status of the tenants.

Asset Managers

Mutual funds

Of the 41 companies offering mutual funds in March 2018, the top five accounted for nearly 57 percent of the industry's AUM and the top ten companies accounted for 81 percent (Figure 4).

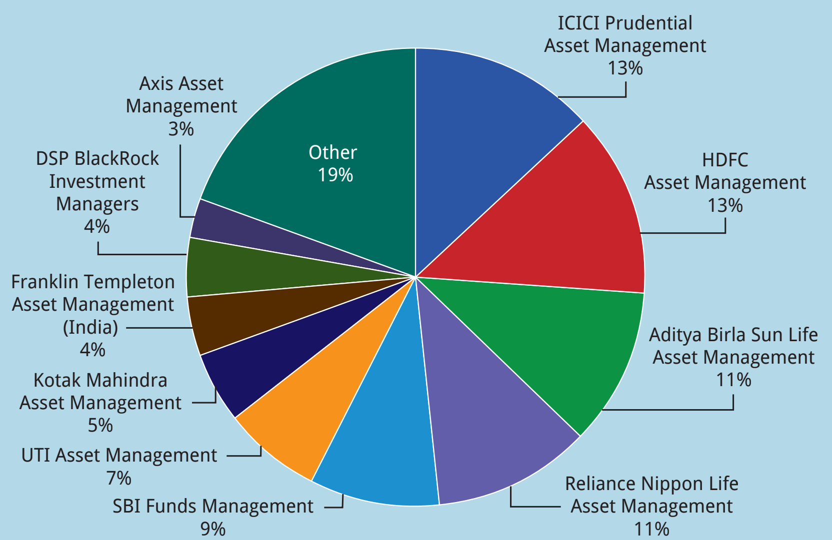
Pension funds

NPS employs professional fund managers. Eight fund managers presently manage NPS including SBI Funds Management, LIC Mutual Fund Asset Management, UTI Asset Management, HDFC Asset Management, ICICI Prudential Asset Management, Kotak Mahindra Asset Management and Reliance Nippon Life Asset Management. EPFO employs SBI Funds Management, ICICI Prudential Asset Management, Reliance Nippon Life Asset Management, HSBC Asset Management (India) and UTI Asset Management as fund managers, as of March 2018.*[37]

Alternative investment funds

There are about 395 registered AIFs in India.*[38] PEs invested USD 11.2 billion in FY2016-2017 of which a large part went to the internet and mobile payment sector.

Figure 4: Market Share of Top 10 Mutual Fund Managers



Note: As of March 2018.
Source: AMFI

Sequoia (32 transactions), Accel Partners (30 transactions) and IDG Ventures (25 transactions) were the most active VC firms in India in FY2017-2018, followed by Blume Ventures (21 transactions) and Kalaari Capital (12 transactions).*[39] Bain Capital, Caisse de dépôt et placement du Québec (CDPQ) and Canadian Pension Plan Investment Board (CPPIB) are some of the largest PE investors in India. Kedaara Capital (USD 750 million), Chrys Capital (USD 600 million), Morgan Stanley (USD 500 million) and SAIF Partners (USD 350 million) recently raised large funds dedicated to India.*[40] Most of these funds raised capital from offshore investors primarily from the U.S. and Canada. Fairfax Financial started an entire company listed in Canada, Fairfax India Holdings, with a large and growing corpus (USD 2.1 billion). Brookfield Asset Management and Fairfax are two pioneers in using foreign listed companies (permanent capital) to invest in both public and private markets in India. Purely domestic sourced PE funds were very small, with TVS Capital Funds being one of the leaders (USD 200 million). The majority of PE and VC investments in FY2016-2017 took place in the technology (46 percent), financial services (22 percent) and healthcare sectors (six percent).*[41]

As of 2018, the total size of India's hedge fund industry is about USD 3 billion.*[42] Avendus Capital is the largest hedge fund with USD 1.3 billion. There are more than 13 hedge funds in India.*[43]

India has two listed InvITs, India Grid Trust and IRB InvIT, while IndInfravit Trust (sponsored by Larsen&Toubro) is a private InvIT. The two public InvITs have underperformed post-listing and hence other InvITs have held off listing plans. As of April 2018, India Grid Trust was trading at a discount to its listing price while only recently IRB InvIT outperformed its listing price.*[44]

No REITs have been issued in India. Asset managers with large real estate interests, including Blackstone and Raheja, are planning to launch commercial and residential REITs.

The Road Ahead

In all markets, but particularly in an emerging market like India, transparency and trust are key drivers in the population's adoption of investment products. The asset management industry has innovated with products like ETFs that are transparent, low cost and tax efficient and we expect investors to gravitate to investment products with these attractive features. Hand in hand with industry innovation, we expect regulatory innovation and legal clarity to accelerate the growth and adoption of asset management products in India.

To promote growth and protect the interest of investors, SEBI has introduced several new regulations, such as banning entry load fees, separating advisor commissions from the investment amount, and removing the provision to transfer some expenses to investors. Investors are allowed to change their agent without a No-Objection Certificate (NOC) from their previous agent, and negotiate the upfront commission paid to the agent. These measures, it is hoped, will in due course give investors greater security and encourage them to invest in mutual funds. Furthermore, the government is working towards creating a robust framework to provide legal protection to foreign investors.*[45]

PEs and VCs provide capital to new, unproven business models which have strong growth potential, such as e-commerce, and other online businesses. Since these business models are new, many a times there is regulatory uncertainty around their tax treatment, which acts as a deterrent to the investors. Regulatory clarity is thus essential to invigorate investments. PE investors further seek certain provisions such as pass-through of losses at the end of the fund life (for Category I and Category II) in order to encourage investment.*[46] Hedge funds are currently not mentioned in the IT act and thus investors expect the government to bring them under a formal tax regime. Regulatory clarity is also needed in order to plug the loopholes in AIF regulation to avoid regulatory arbitrage. One such instance was highlighted by the RBI in its March 2018 letter to SEBI, asking the latter to provide clarity on loan issuance by an AIF, highlighting a case where a non-banking finance company slipped between regulatory loopholes.*[47]

Regulatory constraints and penalties on mis-selling are also very important in maintaining the integrity of the asset management ecosphere. Recent IRDAI guidelines on regulations governing web aggregators in order to curb aggressive selling*[48] and the setting up of a task-force by the government to finalise the framework of a national e-commerce policy are steps in the right direction.*[49]

There is pressure to increase investor returns from pension schemes by improving governance, enhancing equity and alternatives exposure, and involving the private sector. The EPF Scheme 1952 was amended in 2017 to allow a maximum of two terms to the board members of EPFO.*[50] These steps have met with mixed response. EPFO recently reduced its interest rate to a five-year low in 2018 despite a surplus of USD 100 million.*[51] In order to increase pension penetration among private sector employees, the government has reduced the ceiling on the number of employees in a firm and mandated more firms to provide pension coverage. The Indian labor ministry is planning to move to a public-private-partnership model to oversee its flagship provident fund and medical insurance schemes.*[52]

In spite of a government push, REITs and InvITs have not seen much enthusiasm. This is partially due to confusion on some critical regulatory matters. However, the government is taking positive steps and relaxing issuance norms such as allowing REITs and InvITs to raise funds through debt and permitting single-asset REITs, *[53] and also allowing strategic players to invest up to 25 percent in REITs and InvITs.

Rapid digitisation and governmental push in this area will see further easing of transaction processes. The Chinese example of extraordinary growth in FinTech business such as Ant Financial and Tencent, demonstrates the potential of technology in redefining the entire financial chain. As new technologies, such as blockchain and machine learning, come into usage, efficiency and access will improve exponentially. Services like robo-advisors and data-driven customised financial planning are likely to become more prevalent. SEBI and AMFI have launched several initiatives to keep India's financial services industry at the forefront of technology adoption.*[54] All this will lead to increased penetration by India's population into asset management products.

The asset management industry in India is poised to go through much change in the coming years. India is one of the fastest growing economies today and rising levels of wealth and income will see people looking for newer avenues of investment, away from traditional fixed-tenure bank deposits. Asset management companies will come up with innovative product bundles that cater to the varied needs of customers and the demand for higher returns. With the alignment of multiple factors in its favour and numerous opportunities for growth ahead, India's asset management industry is poised for exceptional growth.

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VIKRAM KURIYAN

Faculty Member, Indian School of Business

Dr. Vikram Kuriyan is a faculty member at the Indian School of Business, where he founded the Investment Laboratory. He is also Chairman of GWA, the pioneer in fundamental indexing. Previously, he was Chairman of the Global Asset Allocation Committee and global head of Quantitative Strategies at Bank of America's asset management division. Dr. Kuriyan earned his Ph.D. and Master's degrees at Harvard University and his B.S. degree from the Massachusetts Institute of Technology. He has advised the Securities and Exchange Board of India (SEBI), some of the worlds' largest sovereign and pension funds and is a trustee of the CFA Institute Research Foundation.

BITAN CHAKRABORTY

Analyst, NSE-ISB Trading Laboratory, Indian School of Business

Bitan Chakraborty is Analyst with NSE-ISB Trading Laboratory at Indian School of Business where he is involved in research projects in diverse areas of accounting and finance. He holds degrees in engineering and management and has worked as a derivatives trader with Dynamic Equities and Commodities and at Capgemini. In his free time, he likes to read up on advancements in various branches of science and learn programming languages.

TUHIN HARIT

Senior Associate, Corporate Finance, KPMG Corporate Finance

Tuhin Harit carries financial advisory and investment banking experience from companies such as KPMG and JP Morgan. He is a mechanical engineer and an MBA in finance from Indian School of Business. He writes on varied topics such as capital markets, corporate governance, private equity, and start-ups. He is also a published author of fiction.

HEMANT MANUJ

S. P. Jain Institute of Management & Research

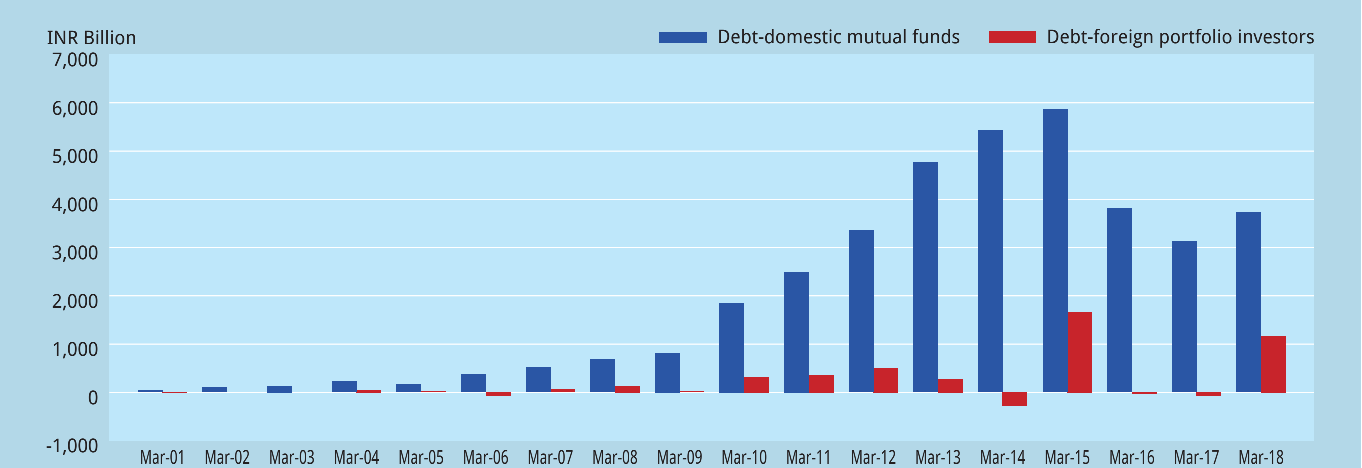
Developmental and Policy Issues of Bond Market in India

Overview of the Indian Economy and Bond Market

The Indian economy is the third largest economy by purchasing power parity and the sixth largest by nominal gross domestic product (GDP), which was at an estimated USD 2.597 trillion as of 2017.*[1] Over the last decade, the fast pace of growth in the Indian economy has led to expansion in the capital markets as well. The participation of both domestic and foreign investors has risen significantly during this period.

The Government of India (GOI) and the Reserve Bank of India (RBI) have, in the recent years, been supportive of a liberal investment policy that also included the foreign portfolio investors (FPIs). The FPIs were, in principle, allowed to invest in India since 1992 when the Indian markets were opened up for investments to foreign institutional investors for equity and debt investments. However, the norms and the limits for investments by FPIs have really been liberalised in the last decade only. The strong performance of the Indian economy, which grew at a compounded annual growth rate of seven percent per annum from 2008 to 2018, has led to an increased confidence among foreign investors. In November 2017, global rating agency Moody's Investors Service upgraded India's sovereign rating from Baa3 to Baa2. As a result of the several measures relating to development of capital markets, a fast growing economy, and growing confidence of the global investors, there has been a six-fold increase in annual investments by domes-

Figure 1: Annual Net Investments in Indian Bond Market



Source: Centre for Monitoring Indian Economy (CMIE) tic and foreign investors in the Indian bond market between 2008 and 2018 (Figure 1).

Structure and Issues in the Indian Bond Market

Issuers and investors

The Indian bond market is dominated by government-issued securities. The central government and the state governments in India have consistently been incurring an aggregated fiscal deficit of the order of six percent. The governments borrow solely from domestic sources. As a result, government bonds comprise two thirds of the aggregate domestic bond market size in India (Figure 2).

The issuers in the corporate sector include companies from the public sector and private sector across financial and non-financial institutions. Access to bond markets is however limited to the highly rated borrowers, mostly with AAA and AA ratings. The lower rated borrowers have to depend upon credit facilities from either banks or non-banking financial companies (NBFCs).

Instruments and markets

The Indian bond market is a predominantly cash market with the following characteristics:

1. The short tenor (less than one year original maturity) instruments include commercial papers (issued by corporates) and certificates of deposit (issued by banks).

2. The long tenor (over one year original maturity) instruments include predominantly government/corporate bonds and a few securitised products like pass-through securities and mortgage-backed securities (MBS).

3. The maximum tenor of a government security currently is 40 years, and 50 percent of the outstanding government securities have a tenor of less than 10 years.*[2]

4. The corporate bonds have a shorter maturity profile. The bonds with maturities over three years suffer from inadequate liquidity.

5. There is an absence of a standard credit spread curve. The credit spreads for corporate bonds with similar credit ratings have often a significant variance on account of low trading volumes and bilateral transactions.

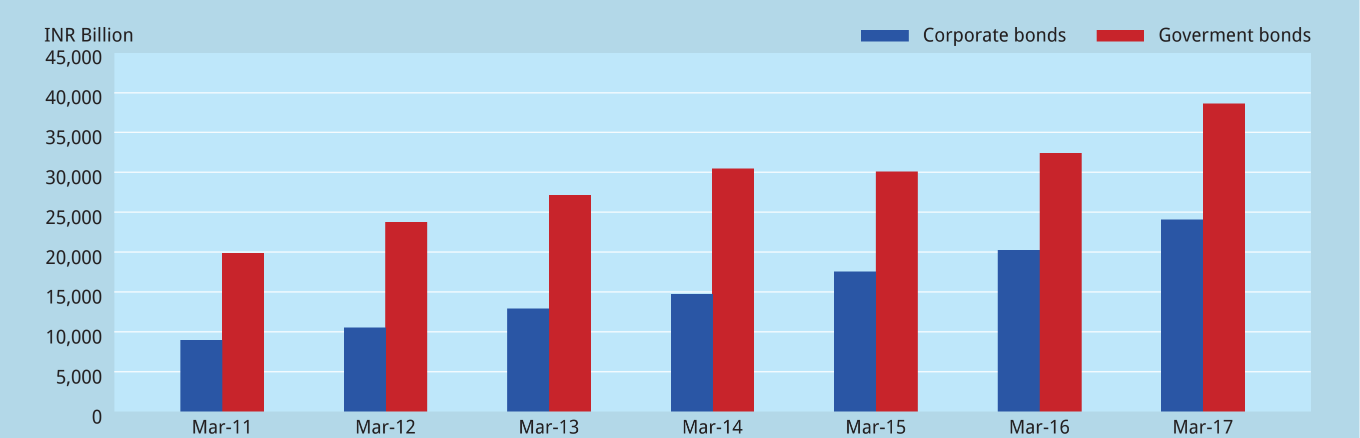
6. The fixed income derivatives market is limited mainly to interest rate swaps (IRS), which are traded in the over-the-counter (OTC) markets. The pricing of the overnight interest swaps (OIS) is linked to the National Stock Exchange Mumbai Inter-Bank Offer Rate (NSE MIBOR) rate. In addition, the interest rate swaps are also priced on a one-year Indian benchmark (INBMK) rate, which is based on polling of a few banks. While interest rate futures are traded on the stock exchanges, they have a very low turnover. As a result, corporates often face difficulties in hedging their interest rate risks.

7. The corporate bond issuances are conducted predominantly through private placements, rather than through public offers, since the former channel is subject to less stringent regulatory requirements, lower cost of issuance, and faster turnaround, compared to public issue of bonds.

One of the long outstanding difficulties faced by bond market participants in India is that there is an absence of a universally accepted yield curve. The 10-year government security is the most widely referred benchmark rate. For other maturities, there is inadequate trading in the government securities or the corporate bond markets. Currently multiple yield curves are published by rating agencies like CRISIL, data and clearing services companies like CCIL, and data vendors like Reuters. Bond market investors like banks or mutual funds use one of these yield curves for the pricing and valuation of securities.

The loans by banks are priced on the individual benchmark rates fixed by the respective banks themselves. There has recently been an initiative by the RBI to introduce, in a limited manner, the adoption of market-linked benchmarks for pricing of bank loans. This is, however, yet to be accepted by all banks as an industry practice.

Figure 2: Indian Domestic Bond Market Size



Source: RBI, CMIE

Regulation

The domain of regulation of the Indian bond markets has traditionally been split across RBI, the Securities and Exchange Board of India (SEBI), and the Insurance Regulatory and Development Authority of India (IRDAI). RBI is the primary regulator for all banks and financial institutions (FIs) and therefore regulates the scope of investments, valuation, provisioning, and asset classification of all investments by the banks and FIs. SEBI is the capital markets regulator and regulates the players and instruments in the traded markets for bonds, equities, and commodities. IRDAI is the primary regulator for insurance companies and thereby regulates the conduct of the latter in their investments in the capital markets.

The multiplicity of regulatory overview has at times led to inconvenience to the participants in the bond markets. The regulators have now been exchanging thoughts among themselves to pre-empt any confusion or conflict on account of this.

The regulation of financial services and trading has been a matter of much debate in India, as well as in many other countries, since the global financial crisis of 2008. GOI had, in 2011, instituted a Financial Sector Legislative Reforms Commission (FSLRC) to review the regulatory framework in India. FSLRC has submitted its report with recommendations to establish a super-regulator as well as multiple changes in the structure and domains of the existing regulators. There has however not been further action on the report.

Access for Foreign Portfolio Investors

The FPIs, registered with RBI, are permitted to invest in the Indian debt markets subject to limits prescribed by RBI. The limits for investment by FPIs apply, segment wise, to central government securities, state government securities, and corporate bonds. RBI has been periodically revising the limits, after considering the debt and monetary conditions and the demand from foreign investors.

GOI and RBI are quite conscious of monetary and exchange rate risks on account of a high level of investment by FPIs in the domestic bond markets. The investments by FPIs, being in the nature of market investments, can potentially lead to excessive volatility in the bond markets, if FPIs sell their investments on a large scale. The aggregate limit for FPIs in the debt markets is currently 3.5 percent of GDP. This is well within the current total external debt to GDP of India at 20 percent.*[3]

Credit Markets – a Historical Perspective

The credit rate spread on a bond is a function of the maturity of the bond and the default risk of the underlying issuer. The sophistication of a bond market is indicated by both the extent of trading in bonds across the categories of maturity and credit rating. The Indian bond market does not offer significant trading in bonds of either long maturity (greater than 10 years) or of lower credit rating (below AA). There has been slow progress in the underlying credit markets for these segments. The infrastructure projects with long maturity and corporate issuers of lower credit ratings have traditionally depended on banks and non-banking institutions for meeting their financing needs. The bond markets have not yet developed as a platform for such issuers. It is instructive to understand the historical perspective behind the financing of infrastructure projects and the factors affecting investors and issuers of low rated corporate debt.

Financing of infrastructure projects

Infrastructure projects have typically long gestation periods. These projects are also more risky than industrial projects on account of higher controls on their customer markets and user fees. Their cash flows are also such that they require funds with longer maturity.

There is a significant requirement of funds for the financing of infrastructure projects in India. According to the Indian Economic Survey 2017-18, the cumulative figure for India's infrastructure investment gap would be around USD 526 billion by 2040.

The most appropriate sources of funds for infrastructure projects are long term bond markets, pension funds, and insurance companies. However, in India, the long term bond markets are not deep. Indian insurance and pension companies have limited appetite for financing of infrastructure projects on account of their small sizes, limited experience, and regulatory constraints. As a result, these projects have traditionally been funded mostly by commercial banks. However, commercial banks have limited funds of long maturity and are not well placed for financing of infrastructure projects. This has led to an adverse asset liability maturity risk for the banks.

In the last few years, infrastructure projects, especially in the energy and transport sectors, were funded through a public private partnership (PPP) mechanism. The participation of the private sector was intended to help share the burden of financing the capital intensive projects. Several private sector players took a lot of interest and committed significant amounts of funds for the infrastructure projects. This led to a sharp rise in financial leverage of the participating private sector companies in the last few years. Also, the policy environment for the projects became challenging on account of delays in land acquisition, environmental clearance, and sudden cancellation of contracts in many cases. As a result, the development and operational commencement of several infrastructure projects was inordinately delayed, leading to financial difficulties. A large number of private sector infrastructure development companies became insolvent.

The failure of infrastructure projects on a large scale led to a sharp rise in non-performing assets (NPAs) on the balance sheets of commercial banks that had financed these projects. This has led, at a systemic level, to a twin balance sheet problem involving the corporate borrowers and the banks. A key lesson for the policymakers has been that the source of financing of large projects should not be concentrated with commercial banks.

The high-yield market

A mature bond market should comprise of bonds in various segments of the risk continuum. Igata, Taki and Yoshikawa (2009) mention that one of the important factors behind the success of the U.S. bond market is the continuing issuances of high-yield bonds (bonds rated BB or below). The attractive risk-return characteristics of high-yield bonds in the U.S. markets enable speculative grade, but promising and fast growing, companies to raise funds. In addition, the elongation of the average maturity of the traded bonds has helped deepen the U.S. bond markets.

While the risk-free government securities and the highest rated corporate bonds with AAA and AA ratings are frequently traded, bonds of lower investment grades and speculative grades are hardly traded in the Indian bond markets. There are several reasons behind the lack of trading in high- yield bonds:

- **Difficulty in price discovery:** There has been very little data available on the recovery rate of resolved loans in various sectors. This has impacted the ability to compute the fair values of low rated bonds and thereby leading to difficulty in discovery of prices of such bonds.

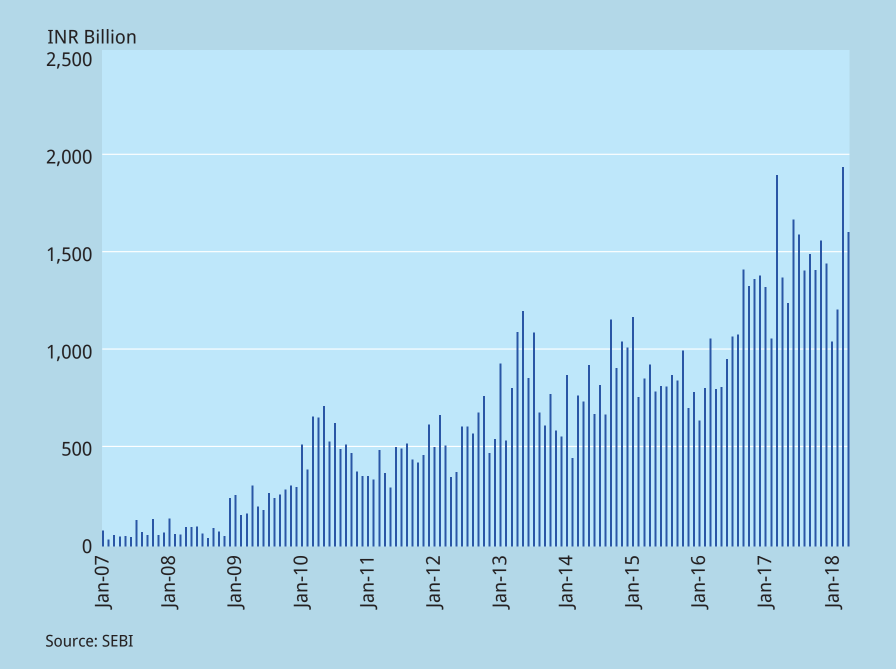
- **Inadequate legal framework:** Prior to 2016, there was no law to specifically address insolvency in India. The cases of corporate insolvency were resolved either bilaterally or through multilateral consultative mechanisms. A corporate debt restructuring group provided the lenders with an optional multilateral platform for negotiations between the lenders and the borrowers to resolve cases of default in loans. In 2016, the Insolvency and Bankruptcy Code (IBC) was promulgated to provide a legal framework for the resolution of insolvency cases. Until 2016, the certainty of recovery of defaulted loans was quite low, thus adversely impacting the interest of investors in low-rated bonds or the underlying assets. The experience after 2016 needs to be watched for a few years.

- **Low appetite for high-yield bonds:** The institutional investors, namely the mutual funds, insurance companies, and provident funds have been prohibited, as per their respective regulations, from investing in high-yield bonds. The commercial banks are required to invest a significant portion of their total liabilities in cash and government securities, currently four percent and 19.5 percent, respectively. As a result, they do not have any significant residual appetite for corporate bonds, especially of lower ratings.

Insolvency framework

A law titled the IBC was promulgated in May 2016 and became effective in December 2016. The NPAs of the Indian banks have risen sharply since 2015. As a follow up measure, in order to speed up the resolution of large size NPAs, RBI referred to the banks, some of the largest stressed accounts for resolution under the IBC. In June 2017, RBI issued directions to banks for initiating insolvency proceedings, as per the IBC, against twelve selected corporate debtors. These loans were required to be referred to the National Company Law Tribunal (NCLT), which is the adjudicating authority under the IBC. The loans outstanding for these twelve selected debtors were estimated to be of the order of INR 2 trillion (approximately USD 330 billion). These loans constituted about 25 percent of the aggregate non-performing assets of the Indian banking sector. The IBC stipulates that creditors are required to finalise a resolution plan within a maximum of 180 days (extendable to 270 days) from the date of referring a defaulting debtor to the NCLT. In cases where a viable resolution plan is not agreed upon by the banks, within the stipulated period, they should file liquidation of the debtor in the manner prescribed under the IBC.

Figure 3: Monthly Trade Amount in Corporate Bonds



Source: SEBI

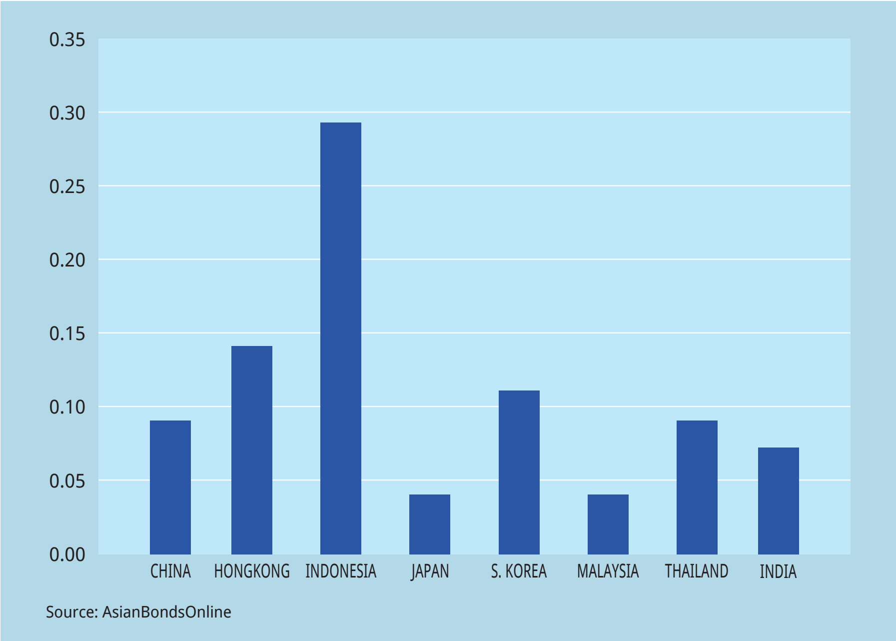
Efforts to Strengthen the Corporate Bond Market

Indian policymakers have been concerned about the lack of adequate depth and width in the Indian corporate bond market. SEBI has, in March 2018, constituted the Corporate Bonds and Securitisation Advisory Committee, chaired by Mr. H. R. Khan, a former deputy governor of RBI, to study and advise on ways to deepen the corporate bond market. Several committees have been established, in the past as well, to review the weaknesses in the bond market and suggest measures to make the market more vibrant. The last committee to work on the subject was the H. R. Khan Committee, which submitted its “Report of the Working Group on Development of Corporate Bond Market in India” to RBI on August 2016. The report had summarised the measures already taken by the government and/or the regulators and the measures that were yet to be initiated to strengthen the Indian corporate bond market.

Policy makers have, hitherto, mostly been focussed on improving the infrastructure and liberalising the regulations on participants and products in the bond markets. This has helped remove several obstacles to the growth of the bond markets in the past. The average monthly turnover in the corporate bond market has increased 16-fold in the last decade (Figure 3).

However, the Indian corporate bond

Figure 4: Corporate Bonds Turnover Ratio in Asia



market is yet to catch up with some of its Asian peers in terms of depth, as indicated by the ratio of turnover to outstanding amount of bonds (Figure 4).

Recent Policy Initiatives

GOI and RBI have recently initiated some efforts to shift the excessive financing of loans from the banks to the bond markets. Some of these measures are as follows:

1. RBI has stipulated that any credit exposure of a bank to a large corporate borrower above a specified limit shall be subject to a risk-weight higher than that ordinarily prescribed for such a borrower. This is to encourage large corporate borrowers to diversify the sources of financing beyond the banking system.

2. The government has asked the insurance regulators, in the FY2018-2019 annual budget, to allow the insurance companies to invest in corporate bonds of "A" rating, which was not allowed earlier.

The last few years have also witnessed some developments that should help the bond markets to develop:

- Growth of the securitisation market, based on the receivables of power and road sector companies;

- Launch of infrastructure development funds (IDFs) which are focussed on financing of infrastructure projects;

- Development of some innovative financing instruments; and

- Launch of a new bankruptcy resolution law, which would enhance confidence in recovery of defaulted loans by the creditors.

Suggestions for Way Forward

In addition to the issues that have been earlier highlighted by various committees, there are certain structural issues that pose severe roadblocks to the deepening of the bond market. A few suggestions on the issues are as follows.

- **Monetary and fiscal framework:** The large fiscal deficit of the government leads to an elevated demand for funds. In a situation of market cleared prices, this would lead to a rise in interest rates which would settle at the equilibrium market rate. However, the biggest investors in the government bonds are Indian banks, which are mandated to invest a minimum of 19.5 percent of their deposits in government securities as their statutory liquidity ratio (SLR) requirement. The SLR acts as a policy constraint on the free discovery of the price of money. The artificially suppressed interest rate on government securities has imperfect consequences on other sections of the bond market. The participants in the market are inordinately focussed on the behaviour of the government deficit and the issuance calendar of government bonds. As a result, the interest of banks in the corporate bonds market gets affected.

  The policy on SLR should be liberalised to allow banks the flexibility to manage their investments in line with the overall prudential regulations of the banking system.

- **Absence of sound credit market mechanisms and price discovery:** The Indian banking system has been predominantly owned by the government until now. The public sector banks (PSBs) account for about 70 percent of the Indian banking system. The PSBs are characterised by skewed managerial incentives and sub-optimal returns to all, including minority, shareholders. However, a related, but less obvious phenomenon has been the secondary adverse impact on the credit assessment, pricing, and trading frameworks of the entire banking system, beyond the PSBs. The private sector banks, in themselves, are better aligned with incentives for appropriate credit assessment and pricing. However, in practice, they are often constrained to behave similarly to their PSB counterparts, on account of the dominant competitive behaviour of the latter. In the absence of any mark-to-market or trading in loans, the banks often take on risks which are not priced appropriately by them. While the risk residing in the loan for a few years manifests later on, the provisioning on the loans lags the risk. A common example is the credit to long term infrastructure projects.

The moral hazard issues with respect to the backstopping of PSBs by the government should be resolved.

- **Lack of focus on end-use of bond markets:** A developed bond market can serve a large section of issuers and investors. It is, therefore, imperative for the policymakers to design and implement incentives to guide such borrowers away from the banking system, as may be better suited to raise funds from the bond markets. One such set of issuers is the infrastructure project developers. This set is best suited to raise capital from the bond markets, but has been forced to rely on bank loans in the absence of deep bond markets. The government would do well to design an appropriate process to partner with such issuers so that the development of bond markets is done jointly and efficiently. This would also imply that the investor base for the funds needs to be widened.

  A comprehensive review of the financing of infrastructure projects should be conducted to develop more efficient guidelines for the same.

Conclusion

The Indian bond market is among the largest Asian bond markets. It has evolved over the last decade and has the potential to be a large and deep market for domestic and global issuers, intermediaries and participants. There have been significant recent developments like increased foreign portfolio limits and a strong bankruptcy code that should encourage the market participants. GOI and the regulators need to keep working further on minimising the residual obstacles for the deepening of the bond markets.

Notes

*1 World Bank Open Data. https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=IN

*2 Data based on business statistics published by Clearing Corporation of India Limited (CCIL)

*3 CMIE and RBI database

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HEMANT MANUJ

Associate Professor and the Head of the Finance Area at S. P. Jain Institute of Management & Research

Dr. Hemant Manuj is an Associate Professor and the Head of the Finance Area at S. P. Jain Institute of Management & Research (SPJIMR). He teaches courses in Finance which include Corporate Finance, Securities and Portfolio Management, and Risk Management. He previously worked in the corporate sector for over two decades in the areas of securities regulation, fund management, equity research, risk management, portfolio management, and stressed assets prediction and resolution. He last served as Head – Portfolio and Market Risk Management at IDFC Ltd. and as Head - Early Warning Signals at IDFC Bank, a leading Indian bank.

Dr. Manuj is a Fellow in Management (Finance & Control) from the Indian Institute of Management, Calcutta and a certified Financial Risk Manager from the Global Association of Risk Professionals (GARP). He also holds a Bachelor of Technology degree from the Indian institute of Technology (ISM) Dhanbad and is an Associate of the Institute of Cost & Works Accountants of India.

He has published in prominent Indian business dailies and journals and has also served as a consultant to several leading Indian financial institutions. He is passionate about studying the emerging trends in firm behaviour and policy issues in global corporate finance and markets.

VISHAL SHUKLA

National Institute of Securities Markets

JITENDRA KUMAR

National Institute of Securities Markets

M KRISHNA-MOORTHY

National Institute of Securities Markets

Corporate Governance in India: Regulatory Reforms

Introduction

The Organisation for Economic Co-operation and Development (OECD) Principles define corporate governance as a structure involving interaction between managers of the company, the board, shareholders and other stakeholders. This enables the board to govern the company in a manner to achieve maximisation of owners' wealth and protection of the interests of other stakeholders.

The International Finance Corporation (IFC) also defines corporate governance as the inter-relationship between the various stakeholders like management, board, majority shareholders and minority shareholders etc.

The idea of corporate governance gained prominence after the 1992 release of the "Report of the Committee on the Financial Aspects of Corporate Governance". This report, known as the Cadbury Report after Committee head Sir Adrian Cadbury, is considered to be the cornerstone of corporate governance.

The Cadbury Committee defines corporate governance as the system by which companies are directed and controlled. The Cadbury Committee Report was instrumental in bringing changes in the corporate governance norms of several jurisdictions including India.

In the Indian context, the definition of corporate governance is well laid down by the N R Narayana Murthy Committee on Corporate Governance (2002) which was appointed by the Securities and Exchange Board of India (SEBI), the securities market regulator. The Murthy Committee stated; "Corporate governance is the acceptance by management of the inalienable rights of shareholders as the true owners of the corporation and of their own role as trustees on behalf of the shareholders. It is about commitment to values, about ethical business conduct and about making a distinction between personal and corporate funds in the management of a company".

Why Corporate Governance?

As rightly pointed out by the Uday Kotak Committee, set up in 2017, corporate governance is a mechanism to ensure fair treatment to all the stakeholders of a company, more particularly, the small investors.

According to Sarkar and Sen (2012) companies practicing sound corporate governance standards tend to give better returns than the companies that do not adhere to corporate governance standards. Therefore, it is essential that the principles of corporate governance are adhered to by all the stakeholders, not only in letter but also in spirit. However, recently, it is observed that many undesirable governance practices are being adopted by some reputable companies. Therefore, the main objective of corporate governance norm is to shape the governance structure of companies for long-term value creation and to protect the interests of all stakeholders.

If an economy has not adopted sound corporate governance principles, it will not be a desired destination for foreign capital or investors will seek higher return on their capital as a risk premium. As former U.S. Securities and Exchange Commission (SEC) Chairman Arthur J. Levitt, Jr. (December, 2000) rightly said "If a country does not have a reputation for strong corporate governance practices, capital will flow elsewhere. If investors are not confident with the level of disclosure, capital will flow elsewhere. If a country opts for lax accounting and reporting standards, capital will flow elsewhere. All enterprises within that country regardless of how steadfast a particular company's practices may be – suffer the consequences".

Theories of Corporate Governance

There are various theoretical frameworks regarding corporate governance. The major theories are as follows.

1. **Agency Theory,** propounded by Alchian and Demsetz (1972) and further developed by Jensen and Meckling (1976), is based on the premise that the goals of the agents and principals are different and conflicting. The principals (shareholders) want to maximise the value of the firm while the agents, the management, sometimes make decisions which are not in the interest of shareholders but merely further their own interests. Therefore, there is need of incentivising the executives to work for the interests of the principals as well as requiring the board of directors to control and supervise them.

   According to agency theory, in order to protect the interests of the principals, the board of the company strictly controls, supervises, and monitors the performance of the agent (Hillman & Dalziel, 2003). In other words, the board is accountable to shareholders and there is active involvement of the board in decision-making.

2. **Resource-Dependence Theory** proposed by Hillman, Canella and Paetzold (2000) focuses on the role of the directors in arranging necessary resources for the organisation. Decision-making responsibility lies with the executives, subject to some approval by the board of directors. The board members with knowledge and expertise can mentor the executives in order to improve the efficiency and skill sets of the executives.

3. **Stakeholder Theory** was developed by Freeman (1984) incorporating corporate accountability to a broad range of stakeholders, apart from shareholders. Freeman (1984) believes that executives and managers in organisations have a network of relationships to serve. He also argues that this network is important in addition to the owner-manager-employee relationship as in agency theory. Thus according to Freeman (1984), organisations managing their stakeholder relationships out-perform and outlive other organisations.

4. **Stewardship Theory** is formulated by Davis and Donaldson (1991). The theory lays emphasis on top management and executive acting as stewards and protecting and maximising shareholders' wealth. In order to achieve maximisation of shareholders' wealth, good performance is a *sine-qua-non*. According to stewardship theory, unification of the roles of CEO and Chairman would achieve better outcomes and also mitigate agency costs.

Corporate Governance in India

Indian economy and regulatory framework for companies issuing securities in India

Among the major economies in the world, India is at present one of the fastest growing economies. Currently, India is growing around at the rate of seven per cent per annum and it is the third largest economy in terms of purchasing power parity (PPP) and seventh largest in terms of nominal exchange as per country data provided by the World Bank.

India has been in the forefront of nations in adopting corporate governance standards. Further, SEBI's mandate also lists investor protection as a main priority of the regulator. This is reflected in the latest World Bank Report titled "Doing Business – Measuring Business Regulations" which ranks India fourth in terms of protecting minority investors. In this pursuit, Indian regulators have set up committees under eminent industrialists to prescribe a governance standard for the corporates.

As shown in Table 1, the number of companies registered on Indian stock exchanges is high and the market cap to gross domestic product (GDP) ratio also indicates the relative size of Indian stock markets as compared to economy.

The impact of adoption of corporate governance on market valuation in India has been studied by Banerji, Gokarn, Pattanayak and Sinha (2009). They analysed whether firms in India receive better market valuations on adopting corporate governance practices and studied the relationship between corporate governance and firm level performance in Indian markets using the corporate governance score (Gscore) from the S&P ESG India Index as an indicator for firm level governance quality and financial ratios like leverage ratios, return on net worth (RONW), return on capital employed (ROCE) as indicators for firm level performance. Tobin's Q was used as an indicator of market valuation. They found that the Gscores of In-

Table1: Economic Indicators for India

	FY 2017-18
GDP (Current Prices)	USD 2.264 trillion

Stock Exchanges	As of March 2017 No of Listed Companies	Market Capitalisation	Market Cap/ GDP Ratio
BSE	5,834	INR 121 trillion	80%
National Stock Exchange of India (NSE)	1,817	INR 119 trillion	78.9%

	FY2014-15	FY2015-16	FY2016-17
Net Foreign Portfolio Investment (in USD Million)	45,698	-2,523	7,177

Source: World Development Indicators (www.data.worldbank.org), SEBI Annual Report 2016-17 dian companies as measured by S&P ESG India Index is symmetrically distributed. Using regression, they found that corporate governance is a significant variable in market valuation of Indian companies. The other variables were also found significant. The regression results show that *ceteris paribus* an increase in corporate governance score by one unit results in an increase in market valuation by 0.03 units. Thus, according Banerji, Gokarn et al., in India there is a positive and significant relationship between corporate governance and firm level performance and market valuation. Better governed firms receive higher market valuation in Indian markets.

Improved standards of transparency, disclosure, and governance norms are significant for India as they would encourage more foreign investment in Indian companies and also ease Indian companies' mobilisation of funds from international markets. It is noteworthy that corporate governance is a key measure of performance that global investors factor in and the optimism exhibited by international financial institutions on the Indian economy is based on enhanced corporate governance standards. The regulatory framework set up by SEBI through empowerment of minority shareholders' rights and the activism of institutional shareholders has led Indian companies to improve their corporate governance.

The Companies Act, 2013 regulates all entities incorporated in the form of a company and is administered by the Ministry of Corporate Affairs. It has replaced the Companies Act, 1956 which had minimal provisions for overseeing the governance of companies. In respect of listed companies, SEBI has been empowered by the Securities Contracts (Regulation) Act, 1956 (SCRA) and the SEBI Act, 1992, to prescribe norms for complying with corporate governance requirements. These three pieces of legislation along with the Depositories Act, 1996 (providing for trading in electronic form of securities), enacted by the Indian Parliament, are the pillars of the Indian securities market.

Companies raising funds through the securities market have to abide by the rules and regulations prescribed by SEBI. At the time of raising the capital through issuance of securities to the public, companies have to make initial disclosures to enable investors to decide whether or not to subscribe to securities issued by the company. Companies are mandated to list their securities on the stock exchange if they raise money from 2 hundred or more individual investors during a financial year. (The requirement was 50 or more investors under the earlier Companies Act, 1956). The regulations also facilitate investors buying and selling securities through off-market transfers and transfers of physical shares among themselves but this is quite cumbersome compared to trades on stock exchange.

The functioning of the stock exchanges is prescribed in the SCRA which also lays down the definition of securities and the recognition and regulation of stock exchanges as well as means to prevent undesirable transactions in financial contracts, among other measures.

The SCRA also mandates that every company which intends to mobilise capital through initial public offering (IPO) enter into a "Listing Agreement" with the recognised stock exchange, where the securities are proposed to be listed and it empowers SEBI to issue directions to a company whose securities are listed or proposed to be listed on a recognised stock exchange.

Evolution of corporate governance in India

The concept of corporate governance gained prominence in India after the country opened its gates to economic liberalisation and globalisation in the 1990s. The major changes in economic policy such as the establishment of SEBI in 1992 (replacing the erstwhile controller of capital markets), the shift from an "approval-based regime" to a "disclosure-based regime," and the appetite amongst companies for accessing foreign capital made companies exhibit greater accountability to shareholders and other stakeholders.

The following paragraphs discuss in detail the contribution made by various institutions like Confederation of Indian Industry (CII), the securities market regulator and the government of India.

1. CII took the first step in formulating a code for corporate governance in India with the announcement of "Desirable Corporate Governance – A Code" in 1998. This initiative was more of a voluntary code of expectations to be complied with by companies, both in the public and private sectors including banks and financial institutions.

   The CII Code stressed maximisation of shareholders. Its key recommendations include a single board instead of the two-tier board adopted in some countries, a cap on the number of directorships in listed companies, and the setting up of audit committees by companies with turnover or paid-up capital above a certain threshold.

2. In 2009, the Ministry of Corporate Affairs, issued "Voluntary Guidelines on Corporate Governance" which prescribed best governance practices for public companies. The ministry also appointed another committee in 2012 under the chairmanship of Adi Godrej, Chairman of the Godrej Group, which came up with seven guiding principles of corporate governance for public companies.

   The accounting scandals in the early 2000s involving Enron, Worldcom, Xerox, AOL, Satyam, global financial crisis and others prompted the Ministry of Company Affairs to carry out a major overhaul by replacing the old Companies Act, 1956 with the new Companies Act, 2013. The new Act strengthened the norms for companies by introducing provisions such as the concept of independent directors (IDs), a code of conduct and remuneration of IDs, limit on the number of directorships, a board evaluation process, the role and responsibility of the audit committee and other committees, and a whistle blower mechanism. The listing agreement was also modified as per the new Companies Act.

3. SEBI had taken a number of initiatives for improving the governance standards of listed entities in India by setting up committees to study the functioning of company boards and formulate an appropriate policy framework to improve their functioning so that the interests of all the stakeholders, especially the minority shareholders, are protected.

   The various steps taken by SEBI from 1999 to date in the area of corporate governance and the resultant regulatory changes brought are captured in Table 2.

Transition from Listing Agreement to SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015

Companies raising capital through public issue were required to enter into a

Table 2: SEBI Initiatives and Resulting Regulatory Changes from 1999 to Date

Year	Particulars of the Committee	Rationale	Major Policy Initiative or Announcement
1999	Committee chaired by Kumarmangalam Birla, member of the SEBI Board	• Money mobilisation by many unscrupulous companies from the capital market at a very high premium • Preferential allotment of shares made to promoters at convenient prices by some companies • Lacuna in attending to investor grievances and providing services to investors • Evolution of best corporate governance practices across the world through the Cadbury Committee Report	Introduction of Clause 49 in the Listing Agreement for exclusively dealing with the corporate governance issues of listed entities including the following: • Optimum combination of executive and non-executive directors in company boards • Meetings of the board of directors at regular intervals • Independent audit committee to examine company financials and provide detailed information to shareholders for appointment/re-appointment of directors
2003	Committee chaired by N R Narayanam-Murthy, Chairman and Chief Mentor, Infosys Technologies	Corporate scandals across the world, especially in U.S., led governments to enact stringent laws to restore investor confidence and improve standards. SEBI committee to align the existing framework with new global standards	Inclusion of new provisions in the listing agreement: • Strengthening the parameters for appointment to the audit committee and for empanelment of external auditors • Audit committee to examine the financial statements, audit qualifications and related party transactions • Company boards to review the business risks and put in place mechanisms to control and minimise risks by seeking appropriate reports from management • Introduction of whistle-blower mechanism to encourage personnel to report unethical practices to the audit committee

listing agreement with the stock exchanges for each class of security, i.e., equity, debt, depository receipts, etc.

The Listing Agreements lay down responsibilities of companies, such as assisting investors in the transfer of securities, receiving corporate benefits etc., and providing adequate disclosure and governance through various board committees.

Companies that had raised capital by issuance of equity were required to enter into another listing agreement to raise capital through debentures or another class of security. This made adhering to disclosure requirements under different listing agreements difficult.

- **Difficulty with separate Listing Agreements:** The regulator and the stock exchanges also found it difficult to enforce the Listing Agreement as the range of powers available under SEBI Act, 1992 could not be effectively enforced in case the company violated the listing agreement.

  According to the SEBI Approach Paper on Listing Obligations and Disclosure Requirements (2014) and the agenda note for the SEBI board meeting on 19 November, 2014 International Monetary Fund's (IMF) Financial Sector Assessment Program (FSAP) on India also observed the limitations in terms of enforceability in the mechanism for recognised stock exchanges to ensure listing compliance and suggested that the mechanism could be strengthened by SEBI along with stock exchanges.

- **Review of international framework of disclosures and listing compliance:** On reviewing other countries' frameworks for ensuring continuous disclosures and listing compliance, it was found that typically a specific department of the regulator regulated listing compliance and continuous disclosures, for example, the Corporate Finance Department of the SEC, the Company Monitoring Team of the UK Financial Services Authority and the Issuer Unit of the Australian Securities Exchange.

  Thus, for India, harmonisation of the provisions of the Companies Act, 2013 and the Listing Agreement became imperative to regulate continuous disclosures by listed entities. As a result, the Listing Agreement has been converted into a regulation called SEBI Listing Obligations and Disclosures Requirements Regulations, 2015 (LODR). This regulation came into force upon notification in *Government of India Gazette* on 2 September, 2015.

- **Applicability of LODR:** LODR is applicable to specified securities listed on the Main Board, the Small and Medium Enterprises (SME) platform and the Institutional Trading Platform (ITP), non-convertible debt instruments like preference shares, bonds and debentures, securitised debt instruments, units of mutual funds, Indian Depository Receipts and any other securities that may be specified by SEBI.

  The substantive requirements are incorporated in the main body of LODR and the procedural requirements are included in the schedules to the regulations. In order to adopt best practices and international benchmarks, the International Organisation of Securities Commission (IOSCO) Principles for periodic disclosures by listed entities and OECD Principles of Corporate Governance were incorporated into LODR. The provisions related to corporate governance in the Companies Act, 2013 were also incorporated in LODR.

Some of the salient features of the LODR is as follows:

1) For the sake of clarity, the compliance obligations of companies are bifurcated into Common Obligations, which are applicable to all listed companies, and include appointing key managerial personnel, disclosures, document policy, and investor services, and Specific Obligations, which are applicable according to the type of security listed on the stock exchange.

2) The LODR disclosure standard mandates that the listed company shall apply the materiality concept (approved by the company's board) while making disclosures and consider events or information whose omission would cause discontinuity or alteration of events or alteration of information already available and would cause significant market reaction. For instance, commencement of production, change in nature of business, and capacity addition, litigation disputes.

   Continuous disclosures include disclosures on shareholding pattern, financials, acquisitions, issuance of security, and outcome of board meetings and shareholders meetings.

3) LODR and Companies Act, 2013 prescribe more or less uniform requirements for board composition, need for independent directors and at least one woman independent director on the board. The role of independent directors to evaluate board performance is also prescribed.

4) LODR prescribes that directors and key management personnel declare any conflict of interest.

5) To regulate subsidiaries and to prevent related party transactions, the LODR (2014) also defines a material subsidiary as a subsidiary whose income or net worth exceeds twenty percent of the consolidated income or net worth respectively of the listed entity and its subsidiaries in the immediately preceding accounting year.

The Way Forward

Two years after the notification of the LODR Regulations, it was felt that the governance practices of even the most reputed public listed companies were not up to the mark on many dimensions including board diversity, reliability of disclosures, role of independent directors, protection of minority shareholder interests, managerial compensation and related party transactions. Therefore, in order to further fine tune the governance framework of the listed companies, SEBI formed a committee under the chairmanship of Uday Kotak, Executive Vice Chairman and Managing Director of Kotak Mahindra Bank. The other factors which necessitated reviewing the governance practices of companies include the increasing pace of change in market conditions, the obsessive focus of companies on short-term performance at the cost of long-term performance and an increasingly complex regulatory environment.

The Kotak Committee was requested to make recommendations to SEBI on the following:

- Mechanisms to ensure independence of the institution of independent directors and their effective contribution to the board,
- Enhancing the disclosure requirements and approval process for related party transactions,
- Reviewing the accounting and auditing issues of listed companies,
- Redesigning the board evaluation process, and
- Strengthening the voting mechanism and shareholders' effective participation in meetings.

The committee submitted its report to SEBI in October 2017. Its noteworthy recommendations included the following:

- Separating the roles of Chairperson (head of the board) and Managing Director or Chief Executive Officer (head of management) to provide a more balanced governance structure by enabling better and more effective supervision of management;
- Appointment of at least one woman independent director to the board as gender diversity would have a positive impact on the decision making process of companies;
- Restriction on the maximum number of directorships held by executive and non-executive directors as the considered that a director holding multiple directorships above a reasonable threshold may not be able to allocate sufficient time to a particular company and as a result, may not be able to contribute effectively to the board;
- Considering the critical role of independent directors in maintaining effective corporate governance, the committee recognised the importance of ensuring the "independence" of the independent directors. Therefore, it recommended an effective mechanism for both objective and subjective assessment of the role, responsibility, qualification and training of the independent directors;
- Enhancement of the role of the audit committee especially for scrutinizing the end utilisation of funds to subsidiaries above a certain threshold;
- Effective role of the nomination and remuneration committee in recommending senior executive compensation above a certain threshold; and
- Setting up a separate unit or committee to monitor group governance in the case of listed entities with a large number of unlisted subsidiaries.

SEBI accepted the majority of the committee's recommendations, including those highlighted above, and put in place a strong regulatory framework for the governance of listed companies in India by amending the SEBI LODR Regulations in May 2018. In order to study their effectiveness, SEBI has made many of the changes applicable to the top one hundred or five hundred companies in terms of market capitalisation. Based on the impact of the recent amendments on the governance behaviour of the companies, SEBI may extend applicability of these provisions to other companies also.

It is worthwhile to mention that the corporate governance framework in India has been severely tested from time to time. Though there have been instances of corporate impropriety and fabrication of material information due to the misbehaviour of a few individuals, the boards of directors of the affected companies along with regulatory support played an effective role in finding strategic buyers and preventing bankruptcy. It may be highlighted that the whistle-blowing mechanism now mandated by the regulator has enabled stakeholders to call attention to questionable practices, even involving top management and it did prevented the companies from sweeping conflict of interest issues under the carpet. This indicates how the corporate governance framework has delivered in most circumstances, albeit there have been a few instances where the board has been unable to track due to the fraudulent design of the offenders.

The insolvency and bankruptcy framework enacted by the Parliament of India through the Insolvency and Bankruptcy Code, 2016, enables creditors, home buyers and other stakeholders of a listed company to invoke the provisions for liquidation or resolution in case the company fails to fulfill its contractual obligations, thereby making companies accountable to all the stakeholders. As such, it has become imperative that the boards maintain the financial viability of firms by adopting rigorous standards of corporate governance.

Nevertheless, it may be added that most of the latest amendments to LODR will not come into effect until FY2019-2020 and therefore, we may have to wait for a year or so to understand the impact of the new corporate governance framework and also the value the amendments add to the effective functioning of the boards of listed companies in India.

The views expressed here are solely those of authors in their personal capacities and do not any way represent the views of the organisation(s) they are associated with.

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VISHAL SHUKLA

Faculty Member, National Institute of Securities Markets

Vishal Shukla is working as a faculty member of the National Institute of Securities Markets (NISM) since August 2017 after being posted at NISM by the Securities and Exchange Board of India (SEBI). Shukla has been employed with SEBI as an officer since 2002.

Shukla has done MBA from Panjab University, Chandigarh and has completed a Master's in Public Policy from the Graduate Research Institute for Policy Studies (GRIPS), Tokyo.

He currently teaches economics and securities market law at NISM and his interest areas are macroeconomics, financial economics, financial regulation, and growth and development.

JITENDRA KUMAR

Faculty Member, National Institute of Securities Markets

Jitendra Kumar is an officer of SEBI who joined NISM as a faculty member, in June 2014. He has more than 17 years of experience in the areas of securities markets, banking, and academia. He teaches in various academic programmes as well as the Management Development Programmes (MDP) conducted by NISM.

He has worked in various departments of SEBI including the Investigations Department, the Investment Management Department and the RTI Cell. Prior to joining SEBI, he worked with the National Bank for Agriculture and Rural Development (NABARD).

Kumar holds a BA (Hons) in Economics from Delhi University, an MA in Economics from Jawaharlal Nehru University, New Delhi, an LLB from Mumbai University. He has also earned a Post Graduate Diploma in Securities Law (PGDSL) from the Government Law College Mumbai and is a Certified Associate of the Indian Institute of Banking and Finance (CAIIB).

M KRISHNAMOORTHY

Faculty Member, National Institute of Securities Markets

M Krishnamoorthy is an officer of the Securities and Exchange Board of India (SEBI). He joined NISM as a faculty member in September 2017, on transfer from SEBI. His areas of academic interest include Business Ethics, Corporate Governance, Behavioural Management and Leadership Theories.

Krishnamoorthy teaches Corporate Governance, Securities Law and Mergers & Acquisitions at NISM. He is also involved in conducting research and training in the area of corporate governance. Krishnamoorthy holds a Bachelor of Physics from Madurai Kamaraj University, a Master's in Economics from Annamalai University and a Master's in Financial Services Management from Mumbai University.

Besides SEBI, Krishnamoorthy has also worked for 6 years with the Ministry of Law, Justice and Company Affairs of the Government of India.

ASHISHKUMAR CHAUHAN

BSE

BSE: Catalyst for the Development of India's Capital Markets

Introduction

At a time when many economies in the world are moving at a sluggish pace, India, in contrast, is seen as a vibrant economy with the prospect of strong long-term growth. Even as the global economy moves for imminent recovery, India has shown exemplary strength to bounce back with greater stability and sustainability.

The last four years have been marked by historic economic policy developments and structural reforms, notably, the passage of Bankruptcy and Insolvency Act and the implementation of the Goods and Services Tax (GST). India continues to remain a bright spot globally for investors, primarily led by confidence in the government, strong macroeconomic fundamentals, sharp focus on inflation, and efficient management of the current account and fiscal deficit.

India regained economic growth momentum

The Indian economy posted a gross domestic product (GDP) growth rate of 7.7 percent during the January to March quarter of 2018, enabling the country to retain its position as the fastest growing major economy. The data released by the Central Statistics Office showed that India shot past China's 6.8 percent growth for the January-March quarter. According to the World Bank's report "Global Economic Prospects - The Turning of the Tide?" released in June 2018, India's GDP growth rate is expected to rise to 7.3 percent in FY2018-2019 and the Bank forecast GDP growth of 7.5 percent in FY2019-2020 and FY2020-2021. Further, an Organisation for Economic Co-operation and Development (OECD)*1 economic outlook report released towards end of May 2018 estimated that the country's real GDP growth at 7.4 percent and 7.5 percent for FY2018-2019 and FY2019-2020 respectively, reinforcing the tag of fast growing major economy status for India.

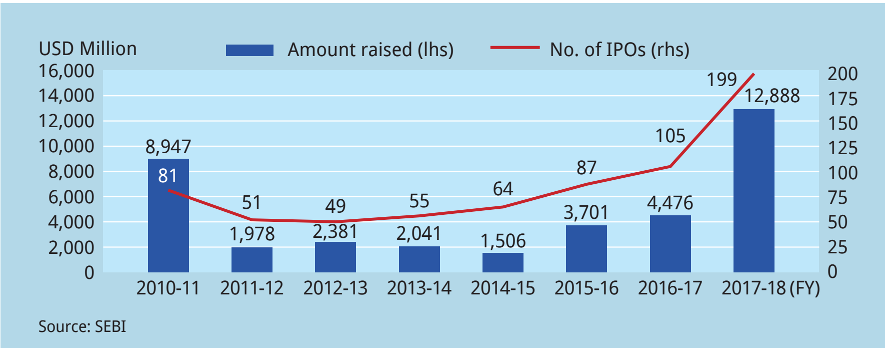
Growth of the Capital Markets in India

Indian capital markets have shown remarkable growth in the post-liberalisation era. The growth of Indian capital markets cannot be discussed without giving a mention to the Securities and Exchange Board of India (SEBI). The establishment of SEBI in 1988 was an achievement for the Indian stock markets as it removed low levels of transparency and unreliable clearing and settlement systems. Through the SEBI Act of 1992, the organisation was given statutory powers, which played a huge role in the regulation of the securities market in India. Now, SEBI is the market watchdog and regulates everything that goes on in the Indian stock market.

The Indian market remains one of the most resilient markets globally and is one of the top destinations for domestic and global businesses to expand and invest into. Recently, a Sanctum Wealth Management report indicated that Indian stock markets will become the fifth largest in the world by 2018. As per the report, a major factor that has changed in Indian equity market is that the domestic buyer now sets market prices. Domestic mutual funds bought equities worth USD 15.3 billion against USD 8 billion by foreign investors in 2017. Additionally, India also benefits from a favorable contrast to other emerging markets. Especially, with the fact that China is moving to a slower pace of growth.

In fact, Morgan Stanley predicted that market capitalisation (market-cap) of Indian equities is likely to hit USD 6.1 trillion by 2027, up from USD 2.3 trillion in 2017. The report also stated that within the major markets in Asian region, India's equity market is expected to grow the fastest at 10.1 percent compounded annual growth rate (CAGR), reaching USD 6.1 trillion by 2027. While the market-cap of China and Hong Kong equities combined will increase

Figure 1: Equity Listings and Equity Capital Raised in India



at a 7.9 percent CAGR, from USD 13.8 trillion currently to USD 30 trillion, almost the current size of U.S. equity market-cap of USD 31 trillion. Japan would be the next largest equity market at USD 8 trillion.

Capital markets to propel India's economic growth

The transformation that India needs across infrastructure must be driven by innovative solutions. While different agencies have estimated varying amounts of money required in infrastructure build out, one aspect is common – funding of a large magnitude. When the economy grows at a high rate, it is natural that there is huge pressure on infrastructure. Even though India has been building infrastructure, it has not kept pace with demand resulting in huge productivity losses. India will require close to USD 200 billion per annum in infrastructure investment for the next 10 years. Similarly, for other industries and services companies, an additional USD 50 billion per annum needs to be raised. The total fundraising requirement may therefore reach USD 250 billion per annum.

Capital markets are the avenue for long term fundraising for corporates. Due to the organised nature of capital markets in the form of exchanges, they have been amongst the easiest markets to transact on. In essence, raising of funds for debt or equity or a combination is why they are called capital markets. The capital markets in India can be explored in order to raise funds of this magnitude. In developing countries like India, the stock exchanges play a cardinal role in promoting the level of capital formation through effective mobilisation of savings and ensuring investment safety. India's mature, resilient and robust stock exchanges make available the financial resources available to the government, corporates and industries in the public and private sector through a wide gamut of products.

For instance, in FY2017-2018, Indian corporates raised over USD 180 billion via equity and debt markets. Figure 1 conveys only the equity capital raised by corporates in India over the last eight years.

Role of BSE in Developing India's Capital Markets

BSE, formerly known as the Bombay Stock Exchange, is one of the financial institutions that has played a prominent role in developing the Indian capital markets. Established in 1875, the BSE is the oldest of India's stock exchanges and three years older than the predecessor to the Tokyo Stock Exchange. It traces its roots to the 1850s, when commerce flourished in India under British rule. The story of BSE is the story of the Indian economy. The S&P BSE SENSEX is often referred to as the barometer of the Indian economy and is called "India's Index the World Tracks." As a major Asian stock market index, the S&P BSE SENSEX is a benchmark indicator of the swings in the Indian economy. BSE provides an efficient and transparent market for trading in equity, debt instruments, equity derivatives, currency derivatives, interest rate derivatives, mutual funds and stock lending and borrowing.

A historical perspective of BSE

The advent of BSE took place when a few stockbrokers laid the foundations to the world's tenth-largest stock exchange*[2] under a banyan tree at Horniman Circle in Mumbai in 1855. The first organised stock exchange in India "BSE" was founded in 1875 and is the oldest in Asia. In 1957, the BSE was recognised as the first stock exchange in the country under the Securities Contracts (Regulation) Act 1956, of the Government of India. The SENSEX, which started with a base value of 100, crossed the 36,000-mark in January 2018.

Throughout these years, trading operations remained largely confined to the traditional open outcry system, until technological breakthroughs fostered growth in market participation. The development of new technology was arguably the driving force behind the fastest changes. Slowly, the telegraph, ticker tape, telephone and programmable digital computer laid the foundations for today's computerised trading systems.

Digital transformation – A shot in the arm for the world's fastest stock exchange

For a trading venue, the faster and more efficiently it can carry out a deal and the more up-to-date information it can store and retrieve, the more attractive it is to investors. The shortening of the period between trades being initiated and completed, i.e., the reduction of latency as it is known, is the ultimate aim of any stock exchange. Effectively, "Speed and Execution" are the essence of the stock exchange business.

BSE by espousing the digital revolution, switched from a legacy system to transform into the world's fastest stock exchange. In the late 2000s, upgrading of its legacy trading systems became BSE's top priority. In 2010, BSE gave a response time of 300 milliseconds. It took three years to upgrade from 300 milliseconds to 10 milliseconds. Considering the competitive environment, soon BSE took a leap of faith and decided to go from 10 milliseconds to 200 micro-seconds. When BSE implemented its 200 microseconds response time in 2014 using the Deutsche Börse trading system based on Linux and MySQL open source technologies, it had not even envisioned reaching a six microseconds response time, which would make it the fastest in the world. Breaking traditional system or legacy infrastructure was difficult initially but the exchange adapted to change slowly and steadily and moved to complete open source to become the world's fastest stock exchange by 2015, handling 400,000 trading orders per six microseconds (up from the earlier 8,000 orders per 40 milliseconds). Today, BSE, the world's fastest exchange, is 10 times faster than its nearest rival. This success did not come without risk at the time.

A trading platform needs to be both superfast and accurate at the same time. BSE became the first trading platform in the world to make a complete switchover in one night with over 5,000 listed companies, 1,200 brokers and over 50,000 logins. However, while the historic transformation was happening, the old system was still working on a standby basis, in case the switchover failed. BSE, which is known as the country's foremost investment hub and capital market catalyst, thus, became a technology trendsetter.

BSE trudged beyond transformation of trading systems

The transformation of trading systems was just the beginning, since the mission of BSE is to be better than the best in the world and to keep India's flag flying high. After the launch of the new trading system, BSE very shortly switched from Network Time Protocol to Precision Time Protocol, which not only improved performance but also brought a high degree of transparency and fairness to all the stakeholders, from brokers to listed companies. Cheap and efficient trading is what securities traders wanted and that is what they got. Volumes transacted saw unprecedented increases, with the average daily number of trades surpassing previous highs.

Big data, social media analytics and identity and access management were the next major implementation items. The advent of algorithm and high frequency trading in the Indian stock markets has bought fresh challenges for regulators and capital market intermediaries, and tackling them became a top priority. With the implementation of big data solution, complex computations are now carried out in a reasonable response time, making it possible to get deeper insights into business conditions through market snap short, order log LTP analysis, and other analytical tools.

BSE is the only exchange to have implemented big data for social media analytics. Driven by highly competitive market conditions and the need to conduct fraud analysis, the exchange has formulated an extensive approach to develop an automated social media monitoring solution. As a part of this process, BSE monitors content on companies listed on its platform and looks for material information as well as possible rumours on social media sites like Twitter, Facebook and also on news websites. This solution is tuned to run on a specified frequency and provides an interface to BSE's dashboard eliminating manual process of monitoring social media.

BSE also implemented its home grown solution of identity and access management using open source technologies, which helps to achieve Single-Sign On (SSO) with Two-Factor Authentication. SSO solution was based on open source technology, integrated with its internal domain authentication mechanism. SSO facilitated unification of work-flow and access methodology. It reduces the overhead of maintaining multiple interfaces, reduces cost, simplifies processes and vastly reduces non-compliance related issues.

While BSE is set to achieve its next target of 200 nanoseconds much sooner than expected, a long-term strategy for technology transformation is a good idea as the technological dynamics are changing fast and every company should change with time. One thing is for sure, the technological evolution at BSE is far from over.

BSE Thriving on Innovation

BSE has taken the lead in introducing newer products and offerings like currency derivatives, interest rate derivatives, Offer for Sale, e-IPO and sovereign gold bonds. BSE has also focused on being a wealth creation platform, which is evident in endeavours like developing the BSE SME platform to bridge the capital requirement for the small and medium enterprise (SME) sector and being the largest distribution platform for mutual funds and bond issuances. BSE commands the market leader position in these segments. All the above segments have been identified as priority areas by the Government of India for fund mobilisation.

Indian market capitalisation of listed firms is expected to rise from USD 2.3 trillion currently to USD 10 trillion over the next ten years. This increase in investments is possible, if we enhance trust in the markets and distribute financial products to Indians who have never invested in the markets. It is also imperative that newcomers entering the capital markets are presented with the opportunity to invest in long-term, less risky instruments. For this purpose, BSE has been focusing on distribution of financial products for investment instead of speculation and trading. BSE has developed several market leading and innovative frameworks like e-IPO, Bond Distribution, BSE StAR MF platform, and BSE SME platform.

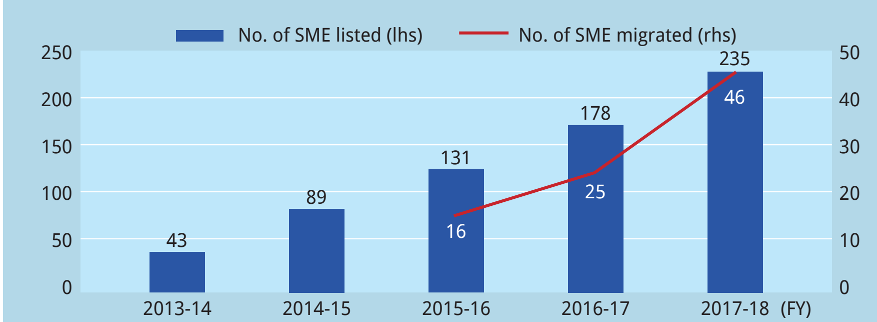
BSE SME platform

Today, BSE has emerged as the preferred platform for companies to raise funds from as little as USD 150,000 to more than USD 1.5 billion. The BSE SME platform enables SME companies with post -issue face value capital of as low as USD 450,000 to access the capital market to raise funds. As of 15 June, 2018, BSE SME has raised over USD 370 million for 254 companies whose market capitalisation stands at more than USD 3.2 billion. BSE SME accounts for the majority of SME companies listed in India. Figure 2 shows the number of SMEs listing on the BSE SME platform and the number of companies, which have migrated to the main board of BSE.

Currency derivatives at BSE

In India, currency derivatives trading commenced in August 2008 with USD-INR Futures. Subsequently, SEBI approved trading in currency futures contracts on EUR-INR, GBP-INR and JPY-INR pairs and currency options contracts on USD-INR in 2010. BSE was a late entrant and commenced trading operations only in November 2013. However, within a short time, BSE has assumed the leadership position in this segment. Figure 3 illustrates the

Figure 2: SME Listings at BSE



Source: BSE

growth of the currency derivatives segment at BSE, which has grown at a CAGR of 57 percent in the last five years. As of March 2018, BSE's market share in the currency derivatives segment is 47 percent.

BSE StAR MF

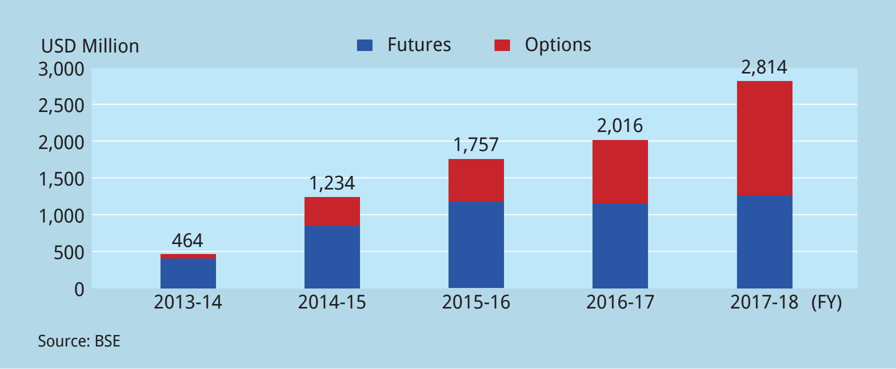
Similarly, the BSE StAR MF platform is India's largest digital platform to distribute mutual funds, commanding a market share of close to 80 percent amongst exchange distributed funds. More importantly, it accounts for more than 50 percent of all new retail funds flowing in to Indian mutual funds. Distribution of mutual funds via exchanges was optional. Due to better value and speed, comfort, consistency and low cost associated with BSE StAR MF platform, it has grown over 114 percent since inception. In FY2017-2018, the platform processed a record of more than ten million transactions with a total value of over USD 18 billion.

BSE StAR MF is now adding over 1,000 members per month and has more than 200,000 independent financial advisors, brokers, broker branches and associates in its network in over 3,000 cities and towns across India. Almost all the top distributors of mutual funds are part of BSE StAR MF now. In essence, BSE has positioned itself as the investment exchange of India recently and achieved many of its objectives.

BSE – To foray in to insurance distribution

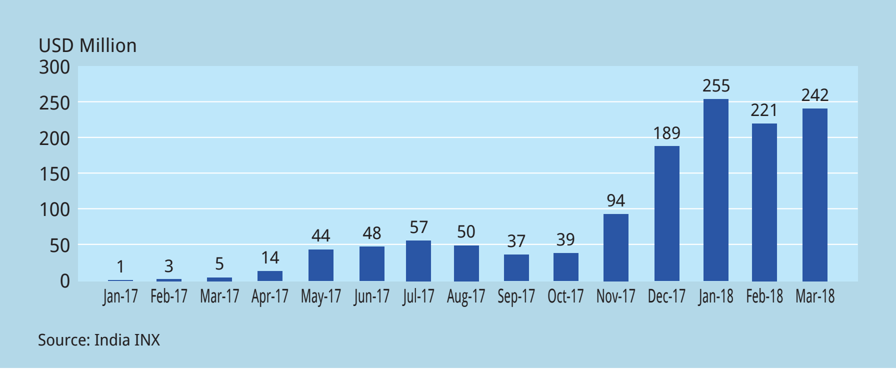
To take this concept further, BSE now plans to provide insurance distribution through its nationwide distribution system available in more than 3,000 cities having more than 200,000 people connected with it who are highly compliant, literate and used to providing financial solutions. As a first step, BSE has signed a memorandum of understanding with Nasdaq-listed Ebix, Inc. to set up a joint venture to develop an insurance distribution network in India. The new venture, branded BSE-Ebix will deploy an insurance distribution exchange platform that will allow distribution outlets, stock brokers, wealth management advisors and financial institutions across the country to sell life and non-life products. BSE insurance distribution framework is expected to roll-out by the end of 2018. We hope it will be as useful to investors as to the agents and other intermediaries, who will get automated single-window framework for many insurance companies, and help them service their clients better than with the current manual framework.

Figure 3: Average Daily Turnover of BSE Currency Derivatives



Source: BSE

Figure 4: India INX - Average Daily Traded Value



Source: India INX

India INX – Building a global connect

Adding to this growing number of initiatives was the inauguration of India International Exchange (India INX). In January 2017, the country witnessed a major milestone, when India's first international exchange – India INX was operationalised. Wholly owned by the BSE, the new exchange operates 22 hours a day from within a special economic zone which circumvents India's strict capital controls and allows licensed international investors and non-resident Indians to trade domestic securities and equity, currency and commodities derivatives from anywhere around the world. This will help India to compete with other global financial centers such as Hong Kong, Singapore, Dubai and London. As seen in Figure 4, India INX has witnessed impressive growth in trading volumes since its inception, with average daily turnover growing from USD 1 million in January 2017 to USD 242 million as of March 2018.

Apart from the capabilities of India INX in creating a globally connected market, BSE is also forging working relations with its peer exchanges around the region and globally, including Korea Exchange, Dubai Financial Markets and Dhaka Stock Exchange. South Asian Federation of Exchanges (SAFE), a forum of 28 member entities from the South Asian Association for Regional Cooperation (SAARC) regions like Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka as well as Mauritius and UAE appointed the author as the chairman of this forum. Consequently, BSE assumed the leadership role in helping smaller bourse in the Sri Lanka, Nepal, Mauritius and Bhutan to develop. BSE will ensure that SAFE achieves its ambition to accelerate economic integration within the region by creating strong cross border capital market linkages and creating a conducive environment for cross border co-operation.

BSE – India's first listed stock exchange

The next logical step was to make BSE a publicly-listed company, for even better corporate governance, accountability and professional management. This was realised when, in February 2017, BSE became India's first listed stock exchange, amidst overwhelming support and stellar listing. The BSE initial public offering (IPO) had on offer 15.42 million shares representing 28.3 percent of its pre-share sale capital. The IPO was a major success being oversubscribed 51 times making it one of the most successful IPOs in recent years.

BSE – Contribution towards financial inclusion through FinTech

The convergence of finance and technology to provide financial services by non-financial institutions, popularly known as FinTech, has come to dominate the financial landscape. BSE is playing a leadership role in adopting modern technologies to the growing and ever changing needs of India like it has done for over 143 years. India's financial distribution system is changing rapidly and BSE utilising FinTech is taking the entire process online to reduce the transaction processing and turnaround time.

The ongoing steady development in the FinTech space has facilitated all market intermediaries working towards making all payments and settlements happen electronically. Digital platforms like BSE StAR MF and BSE SME, have served as an opportunity for distributors to rapidly expand and reach potential investors in the financial services space. The digital platform has enabled BSE to establish a strong presence in mutual fund distribution, and to enable greater participation in the insurance sector, BSE intends to launch a framework similar to StAR MF in insurance distribution.

Similarly, in regulatory technology, BSE was an early mover to understand the importance of data and analytics. BSE has substantially invested to leverage the benefits of big data implementation. In FY2017-2018, the exchange introduced a data analytics-based solution that relies on artificial intelligence to track news related to listed companies on digital media using social media. The primary objective of the tool is to detect and mitigate potential risks of market manipulation and rumors, and to reduce information asymmetry arising on digital media platforms, including social media. During the initial implementation, print media and news websites were included, and it was later expanded to include Facebook and Twitter.

BSE is re-thinking and reviewing processes to cope with changing customer expectations, increasing competitive pressures, challenging macroeconomic conditions and dynamic regulatory environment. Transforming digitally will help in customer acquisition and retention, revenue generation, cost optimisation and operational efficiency. It will also assist in effective monitoring, regulatory compliance and risk mitigation. Thus the exchange can maximise customer experience and gain a competitive advantage in the market. In essence, the emergence of FinTech has provided an opportunity for BSE to make financial products more efficient and inclusive.

Conclusion

India's capital markets have reached a high level of sophistication, maturity and robustness, but still there is a long journey ahead, one that aims at making the markers more vibrant, then achieving global competitiveness and finally claiming global leadership.

BSE is a catalyst for nation-building and not just a trading platform. BSE is poised to play a catalytic role in shaping the new India and bring solutions, which are of strategic importance and relevance to our business, economy, country and the common man as well. As India's leading stock exchange, BSE is an iconic institution and symbolic of India's economic prowess and resilience. BSE is taking a lead in bringing international standards in India, in technology, compliance, corporate governance, promoting SMEs, creation and trading of sustainable and other indices, including the oldest and most popular India based index, the S&P BSE SENSEX. With the BSE likely to keep growing, so too will the opportunities for an increasing number of investors.

Notes

*1 OECD is a group of 34 member countries that discuss and develop economic and social policy.

*2 In terms of market capitalisation as per World Federation of Exchanges.

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ASHISHKUMAR CHAUHAN

MD and CEO of BSE

Ashishkumar Chauhan is the MD and CEO of BSE, Asia's first stock exchange. He is credited with reviving BSE by making it the fastest Exchange globally. He was instrumental in setting up India's First International Exchange "India International Exchange", and completing the IPO of BSE.

He is one of the founders of India's National Stock Exchange (NSE) where he worked from 1992 to 2000. He was instrumental in setting up India's first fully automated screen-based trading system and first commercial satellite communications network. Due to his work at NSE, he is best known as the father of modern financial derivatives in India. From 2000 to 2009, he was President and Chief Information Officer of Reliance Group where he also served as Head of Corporate Communications from 2005-2006. He was also the CEO of the cricket team Mumbai Indians in its formative years.

A distinguished alumnus of IIT Bombay and IIM Ahmedabad, he has received several International and Indian awards. He is also the Chairperson of the Board of Governors (BOG) at the National Institute of Technology (NIT) Manipur, member of the BOGs at IIM Raipur and the National Institute of Financial Management Society. He is the Chairman of South Asian Federation of Exchanges (SAFE). He holds many advisory posts for government and business organisations.

VIKRAM LIMAYE

National Stock Exchange of India

Continuum of NSE's Transformational Journey: Negotiating New Frontiers

Introduction

The National Stock Exchange of India (NSE) is not only the premier stock exchange in India but also one of the leading stock exchanges of the world. In India, it is credited with playing a key role in the modernisation and transformation of the Indian securities market. Incorporated in 1992, NSE commenced operations in 1994 with electronic screen-based trading to replace the traditional open outcry prevalent in those times. This early adoption of technology ensured that participants, irrespective of their geographical locations, were able to view a single order book and trade real-time in a transparent manner. The other distinguishing feature of NSE was that it was perhaps the first exchange in the world that started as a demutualised exchange, where the ownership and management of the exchange were divorced from each other and also from the right to trade on it. Not being managed by owners, which was a break from the past, meant that there was no built-in incentive for mis-governance. These two features of NSE transformed the Indian market, which lacked transparency in the pre-NSE era, into a deep, liquid and transparent market that enjoyed the trust and confidence of investors. Within a year after it began operations, NSE became the market leader and has since sustained its leadership in equity shares turnover.*[1]

The scale and breadth of NSE's products and services, its state-of-the-art technology, and the culture of being continually customer-centric have enabled NSE to proactively deliver innovative solutions for emerging demands in the ecosystem. NSE's integrated business model and sustained leadership position across multiple asset classes have, over the years, attracted a growing number of new participants (investors and traders in India and globally). This in turn resulted in improved market liquidity, efficient price discovery and additional listings. These contributions of NSE to the Indian securities market have been widely recognised.

The improvements in the qualitative indicators of the market are also reflected in the size of the market in India, which has grown tremendously since the mid-1990s. According to the World Bank data, for the period from 2010 to 2016, the market capitalisation-to-GDP ratio for Indian middle income country–averaged about 72 percent, much higher than the 53 percent average of all middle-income countries.

Table 1: Value of Shares Traded: Global Ranking and Growth in 2017

Rank in Value of Shares Traded in 2017 (in 2016)	Exchange	Value of Shares Traded (USD Trillion)	YoY Growth in Shares Traded in 2017(%)
1 (1)	New York Stock Exchange	14.5	-16
2 (2)	Cboe Global Markets	12.3	-10
3 (4)	Nasdaq	11.3	2
4 (3)	Shenzhen Stock Exchange	9.2	-21
5 (5)	Shanghai Stock Exchange	7.6	1
6 (6)	Japan Exchange Group	5.8	3
7 (7)	Cboe Europe Equities	2.4	-10
8 (10)	Hong Kong Exchange	2.0	45
9 (8)	Euronext	1.9	9
10 (9)	Korea Exchange	1.9	14
11 (11)	Deutsche Börse Group	1.5	12
12 (12)	TMX Group	1.2	6
13 (16)	NSE	1.0	46
14 (13)	SIX Swiss Exchange	0.9	9
15 (14)	Australian Stock Exchange	0.8	1

Source: WFE Annual Statistics Guide 2017

Further, although India's performance in this respect fell short of the average for the high-income country category (about 104 percent for this period), there have been some years in the past when India has surpassed the high-income countries average, particularly in the immediate aftermath of the global financial crisis (2009 and 2010).*[2] More recently, in 2017, NSE registered the highest growth among major exchanges worldwide in value of shares traded, pushing it to rank 13th (from 16th in 2016) in terms of value of shares traded (Table 1).

Recognising that there is no scope for complacency, NSE has been continually endeavoring to maintain its domestic leadership position, and also emerge as a stronger global player. This piece seeks to analyse how NSE has responded to the market and regulatory developments in the past, particularly in the recent years and what new paths it is exploring to realise its vision in the medium term. For this purpose, five key areas have been chosen: listing of small and medium-sized enterprises (SMEs) and start-ups, expanding retail investor base, nurturing new markets, establishing international exchange and leveraging technology.

Catching Companies Young: Listing of SMEs and Start-ups

One of the most significant challenges facing the SMEs is inadequate access to equity capital. Historically, SMEs have depended heavily on debt capital from banks and financial institutions, which have often made them overleveraged and also vulnerable to adverse economic conditions. Recognising this challenge, in 2012, the Securities and Exchange Board of India (SEBI) permitted exchanges to (a) create a dedicated platform for SMEs to access capital markets for raising equity capital, and (b) allow SMEs' shares to be listed and traded.*[3]

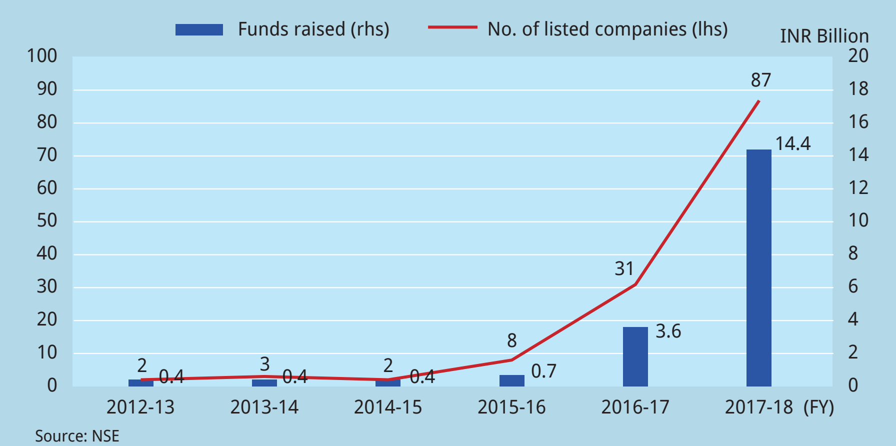
In response, NSE launched EMERGE to help SMEs raise equity capital from informed investors willing to invest early in promising companies. As of end-March 2018, 133 companies have been listed on EMERGE; most of them in the last two years (Figure 1). Together, these companies have raised about INR 20 billion since the platform was launched.

As a segment of NSE, EMERGE enjoys all the benefits of a well-established exchange, such as well-oiled trading terminals of the main exchange, its risk management and surveillance systems and the existing infrastructure. While NSE's aim is to create an enabling environment and attract more and more SMEs to tap the public markets, it has made the eligibility criteria for SMEs to access EMERGE tighter than those set by SEBI, mainly to strengthen investor protection. Thus, only SMEs with basic minimum financial soundness and track record can list on EMERGE.

Aside from giving opportunities to more and more SMEs to make public issues, NSE also envisages EMERGE as a means to expand its Main Board, as SMEs that grow beyond a certain threshold level are allowed to migrate to the Main Board. Indeed, some of the companies that are currently on EMERGE may one day be part of NIFTY 50. NSE's commitment towards SMEs is further demonstrated by the numerous seminars and workshops that it conducts across all SME clusters to make entrepreneurs understand the benefits and obligations of going public.

In recent years, start-ups have also come under NSE's focus. India's start-up ecosystem has grown rapidly in the past few years to become the world's third-largest after the U.S. and China. Only a handful of start-ups, however, have gone public. Further, even though initial public offerings (IPOs) in India have generally been dominated by more traditional sectors such as financial services, NSE expects a shift in IPOs towards new-economy companies in the coming years.*[4] NSE's EMERGE-ITP – a regulated market place which allows start-ups to list with or without an IPO – addresses both the issues. This platform connects growing businesses to a pool of sophisticated investors and offers them a wide variety of exciting investment opportunities. This is expected to help NSE diversify its listing campaigns in the medium term to target new categories of issuers. Towards this end, NSE is also in talks with SEBI to tweak some of the conditions for listing on EMERGE-ITP to make it more attractive to a wider range of companies and investors.

Figure 1: SME listings and the Funds Raised Through This Platform



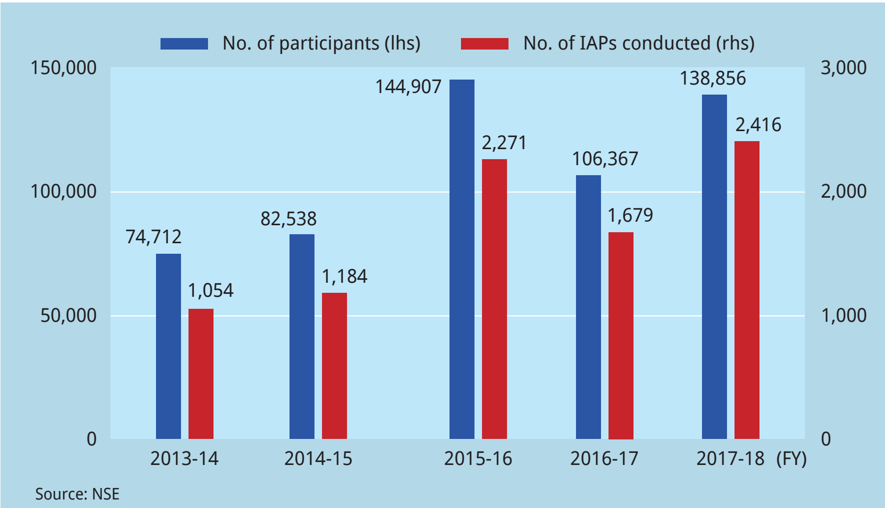
Source: NSE

Expanding Retail Investor Base: Education and Technology Are Key

Indian capital markets are comparatively underpenetrated, with significant potential for further growth. NSE has recognised that educating more and more investors and potential investors and increasing their awareness is a key route through which the investor base can be expanded and investor protection can be achieved.

Since July 2010, NSE has worked in co-ordination with SEBI to conduct investor awareness programs (IAPs), which are offered for free, with an aim to provide existing and potential investors with knowledge and understanding of the financial markets and guide them in effective financial planning. Over the years, the IAPs have increased in frequency and have been attracting an increasing number of participants (Figure 2). The areas broadly covered are rights of investors, do's and

Figure 2: Details of the Investor Awareness Programs (IAPs) Conducted by NSE



don'ts of investing, functioning of securities market, Know Your Customer (KYC) and products of the exchange. Educational and informative booklets relating to operational and functional aspects of the market are distributed to investors free of charge. Some of these IAPs have been targeted at groups such as senior citizens, police officers, hospital staff, factory staff, post office employees and special women's groups.

Years of efforts by NSE and others to spread investor awareness have contributed to some positive developments in the market. In the last few years, the number of individuals participating in the capital market through mutual funds has grown rapidly and further, many of these individuals have been investing through Systematic Investment Plans (SIPs) route, which helps them to remain disciplined, while not having to worry about timing the market. The individual investor base has grown at a compound annual growth rate (CAGR) of about 16 percent over the period from 2014 to 2018. Based on Association of Mutual Funds in India, as of end-March 2018, there are 71 million individual investor accounts in mutual funds, 20 million of which are SIP accounts. Finally, the investors from smaller cities (cities other than the top 15 in India), have begun showing increasing interest in mutual funds; in FY 2017-2018, for example, assets under management of investors in these smaller cities have grown by 38 percent, higher than the overall industry growth of 22 percent for the same period.

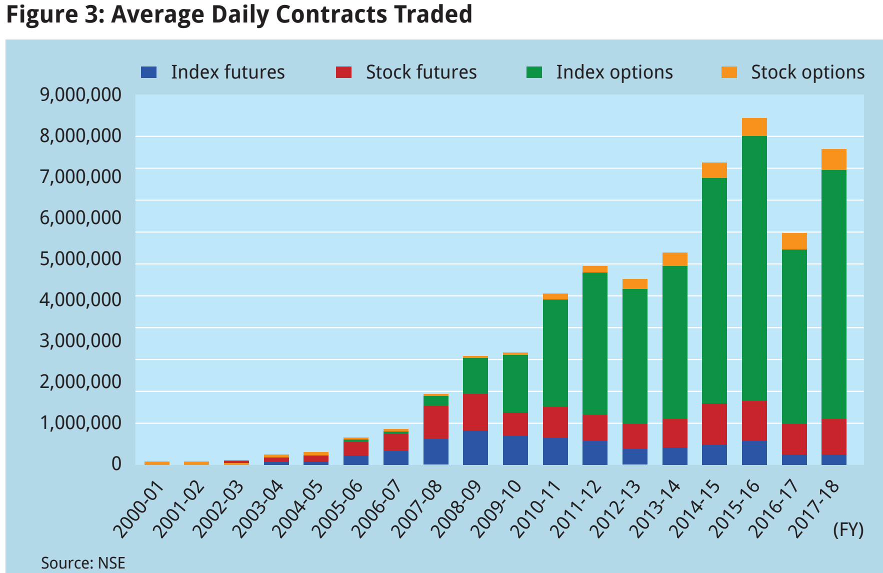
NSE envisages these positive trends to continue in the medium term and is bracing itself to take advantage of them through the digital platform for mutual funds (NSE MF II) that it created in 2013. The platform has allowed the mutual fund distributors to move from paper mode to digital mode, standardise operations, increase transparency and reduce cost and time taken to conclude mutual fund transactions. The convenience and transparency offered through the platform have been a major attraction for new investors. Further, this platform has the potential to become a one-stop shop for distribution of financial products (including non-exchange traded products such as corporate fixed deposits and postal products and so on); which not only would create stronger incentives for mutual funds distributors to register on this platform, but also would indirectly expand the retail footprint of NSE. NSE has already demonstrated its capability in this direction by allowing distribution of sovereign gold bonds on this platform. The initiative has the potential to transform the mutual fund industry to an extent similar to the way the reforms of the early 1990s transformed equity market trading.

Meanwhile, to take advantage of the continuing trend of rising mobile and internet penetration in India, NSE has introduced a web-based and mobile trading platform (called NOW). By facilitating trade execution through the internet, it has made trading a lot easier, particularly for retail investors. In the medium to long term, assuming that mobile and internet penetration continues to increase in India, this mode of trading is expected to gain popularity and help induce a culture of investment in financial instruments even in areas beyond major cities.

Nurturing New Markets: Policy Sets the Stage

Right from its inception, NSE has continually developed and launched new products to meet the diverse needs of investors. A series of reforms in the cash equity segment in India in the 1990s that strengthened the market micro structure, and the progressive liberalisation in product development

Figure 3: Average Daily Contracts Traded



that followed gave a boost to this effort. In 1995, NSE launched the NIFTY 50 index which continues to be the flagship index.*5 Following regulatory approval, derivatives trading at NSE commenced with the launch of futures on the NIFTY 50 index in June 2000. A year later, in June 2001, option contracts were launched on the NIFTY 50. Futures and options on individual stocks were launched subsequently in the same year. In a few years' time, NSE could establish itself globally as one of the top traders in equity derivative products (in terms of volume). Thus, over the years the exchange has achieved not only a diversification in the offering of products, but also significant trading volumes growth for most of the products offered (Figure 3).

The success of equity derivatives led to the launch of a currency derivatives segment in August 2008. Here again, the product suite expanded over the years, even though multiple regulators had to be involved in the product approval process.

NSE's well-defined product development process which evolved after years of experimentation and expertise provides a framework that is expected to put NSE on a strong footing in the medium term. While there would be continued efforts in the short to medium term to further develop the currency derivatives and interest rate futures markets, signs of some exciting future developments are already visible in some areas.

Commodity derivatives

Commodities derivatives are perhaps the only major asset class that is not allowed to be traded on stock exchange platforms in India, making it the final frontier for development of world class multi-asset derivatives platforms. Efforts are currently underway to break through this frontier. In 2015, the government brought the regulation of the commodity derivatives market under the purview of SEBI. While this undoubtedly strengthened regulatory oversight, it was recognised that the market can reap the benefits of economies of scope and scale only if the commodities and securities derivative markets are integrated in terms of participants, brokers and operational frameworks, as in major derivatives markets such as the Chicago Mercantile Exchange (CME), the Eurex Exchange and the Singapore Exchange (SGX). In line with this thinking, SEBI permitted brokerages in September 2017 to deal in commodities and other securities through a single entity. Subsequently, SEBI also announced in its board meeting on 28 December, 2017 that the integration of trading in commodities and other securities shall be done with effect from October 2018, paving the way for stock exchanges to introduce commodity derivatives trading. In the medium to long term, this development is expected to provide NSE's participants and brokers significant benefits in terms of capital efficiency, liquidity management, and reduction in operational and compliance costs.

Corporate bond market

Despite several efforts in the past one and half decades, the corporate bond market in India has remained largely underdeveloped, although some developments in recent years have generated some optimism. For example, several large corporates in India have been turning to the corporate bond route in the last few years to raise resources, as the bank finance is experiencing a severe slowdown due to a twin balance sheet problem. Corporate bonds outstanding have risen from INR 12.9 trillion in March 2013 to INR 27.4 trillion in March 2018. This trend is expected to continue in the medium term, as the banks will take some years to recover from the crisis they are facing. Meanwhile, policymakers have taken a slew of measures to not only vitalize the corporate bond market, but also to allow exchanges to play a key role in developing this market, recognising the need for greater transparency. One example of the government's support for exchange platform is its announcement to introduce debt exchange traded funds (ETFs) to raise resources for central PSUs. Furthermore, the Reserve Bank of India (RBI) has recently permitted corporate bond repos with guaranteed settlement on exchange platforms. This is expected to improve trading activity in the corporate bond market and would further pave the way for implementation of credit products such as credit default swaps (CDS) on exchange platform to manage credit risk in corporate debt instruments.

On its part, NSE recognises these opportunities and has strengthened its commitment to develop a vibrant corporate bond market through its platform. A number of initiatives have been taken. For example, NSE launched its Electronic Debt Bidding Platform (NSE-EBP) for issuance of debt securities on a private placement basis in July 2016, with an aim to bring efficiency and transparency in the price discovery mechanism and to reduce the time and cost of these issuances. Earlier, NSE had started an anonymous order-matching platform for secondary market trades in the debt segment. In effect, it could do for the bond market what anonymous order matching did for equities. The platform has not been popular so far, partly because it gives access only to corporate bonds. NSE is working with regulators to bring all cash fixed-income products (such as commercial papers and certificates of deposits) to this platform. In the medium term, a large part of NSE's efforts would be focused on creating appropriate micro structure and conducive regulatory environment to help stimulate corporate bond trades to migrate from over-the-counter (OTC) to exchange platform.

Going Global: International Exchange in GIFT

The prime minister's vision to create an international financial services centre in India that caters not only to India but the entire world has begun to take shape with the establishment of an International Financial Services Centre (IFSC) at Gujarat International Finance Tec-City (GIFT) in the state of Gujarat. Following the government's announcement of regulatory guidelines for firms to operate in the centre and a subsequent approval from SEBI, NSE and The National Securities Clearing Corporation Limited (NSCCL) have incorporated two subsidiaries NSE IFSC Limited and NSE IFSC Clearing Corporation Limited respectively to act as an international exchange and clearing corporation.

NSE IFSC currently hosts a widely diversified portfolio of products including derivatives of currencies, commodities, stocks and indices offered under a single platform. Since the commencement of trading in June 2017, trading volumes at NSE IFSC have been growing, partly aided by a range of initiatives including incentives under the exchange's Liquidity Enhancement Scheme, easy access to a variety of participants in terms of registration and membership and provision of facilities such as colocation, algorithmic trading and other advanced trading infrastructure. Also, since the exchange is located in IFSC, the trades executed on the exchange are exempt from security transaction tax, commodity transaction tax, dividend distribution tax, short-term and long-term capital gains tax and income tax. Further, for the success of the international exchange, the continued support of policymakers – the Ministry of Finance, RBI and SEBI – is evidenced from their prompt fine – tuning of the policies and regulations to address current and emerging issues. In the Union Budget for FY2018-2019, Finance Minister Mr. Arun Jaitley also proposed a unified regulator for IFSC GIFT, which is expected to result in faster and more consistent decision making.

In the medium term, NSE envisages four major benefits to accrue to it directly or indirectly, as the IFSC would:

1. Provide facilities and regulations comparable to any other leading international finance centres in the world. Companies from Asia, Africa and Europe should be able to raise funds from this Centre. It will be the rest of the world's gateway to India.

2. Enable Indian exchanges to compete on an equal footing with offshore financial centres. This has the potential to halt the migration of trading volume from India to offshore centres, which has been the trend in the past.

3. Take advantage of its geographic location to provide financial services to the entire world, opening with the Japanese markets and closing with the U.S. markets and thereby, serve as India's gateway to the rest of the world.

4. Mitigate the criticism that India has stopped becoming the price setter for even some Indian financial instruments; indeed, in about 10 years, GIFT should be able to become the price setter for at least a few of the most frequently traded instruments in the world.

Leveraging Technology: an Imperative for Sustaining Growth

NSE has been the pioneer in technology in the exchange space, ensuring high reliability and efficient performance of its systems through a tradition of innovation and investment in technology. As already stated, when it began operations in 1995, NSE adopted electronic trading, also called screen-based trading system (SBTS), which replaced the open outcry system prevalent then in India and brought about tremendous improvement in transparency. In delivering transparency, SBTS was complemented by a communication technology that involved establishment of Very Small Aperture Terminal (VSAT) links. The combination of the two technologies ensured that market participants could trade with one another irrespective of their geographic location and that orders and prices could become visible and instantly available to all participants across the country.

NSE leveraged technology not just when it began operations, but right through its history. Over the years, two technologies – algorithmic trading and co-location – have had a tremendous impact on speed of trade execution. The number of equity trades executed per day has risen from about 10,000 in 1995 to several million in 2017. Of course, advanced technology has been used not only in trading, but in other activities as well, such as clearing, settlements, risk management services, surveillance and listing, which have become imperative primarily because of an explosive growth in trading volumes. These advancements have helped NSE maintain its competitive position.

On a day-to-day basis, NSE's electronic systems deploy real-time hardware and software monitoring and analytics with self-correction capability, predictive behavior technology and surveillance of known failure points and unexpected events. To avoid outages or disruptions, NSE ensures that its systems have built in redundancy and excess capacity at all times; implement regular testing protocols; and adopt continuous obsolescence planning to keep its hardware and systems updated. To minimise cyber security threats, NSE has implemented a security framework to prevent and detect system intrusions and internal and external security tools.

Moving forward, NSE has a vision to maintain its leadership position in technology by continuing to take advantage of technological progress to introduce new products and market structures, so that markets become deeper, broader, safer and more efficient. In addition to advances in currently used technologies, NSE envisages that the following two technologies have the potential to shape the markets in the foreseeable future the most.

Blockchain and distributed ledger technology

Blockchain offers some key benefits for capital markets, including an immutable record of transactions, a shared view of data that is widely distributed but easily verified and a simple way to prevent duplicate transactions. Traditional approaches to solving the above issues have always involved significant reconciliation, complex procedures for establishing trust and a need for central authorities, which in turn have led to high barriers to entry and high costs of operation. It is widely recognised that blockchain technology can address these shortcomings of the traditional approaches. India is paying significant attention to blockchain, even as it remains watchful of issues around crypto-currencies. The capital markets regulator has set up a blockchain task force, and a number of participants in the markets have carried out pilots related to blockchain.

Machine learning and artificial intelligence

Machine learning is basically the harnessing of current compute technologies at a scale that is larger and faster than before. It looks magical, but it is based on well-understood techniques and algorithms. Availability of massive data sets together with huge increases in computing power are allowing machines to use machine learning to autonomously execute business work flows, which was not possible earlier. NSE believes that it can and should take advantage of progress in machine learning. For example, NSE's market surveillance, whose objective is to detect market manipulation and market instability events, can use machine learning to fine-tune traditional approaches, and also to detect previously undetected anomalous behavior.

Conclusion

Stock exchanges constitute a critical component of the capital market in any modern economy. For the capital markets to play an important role in determining the pace and pattern of economic development, it is necessary to have efficient and dynamic stock exchanges. The Indian experience shows that the exchanges' ability to contribute to the development of the capital market depends significantly on exchange reforms undertaken and the effectiveness of a strong securities market regulator. Coinciding roughly with SEBI's establishment, NSE was set up as a modern, demutualised stock exchange about two and half decades ago as part of the broad based economic reforms introduced in early 1990s, with an aim to revamp India's capital market, which used to be opaque, inefficient, fragmented and not easily accessible.

Not only did NSE unify the earlier fragmented market into a single national order book, providing equal access to all market participants in the country, but also it brought in unprecedented transparency and facilitated efficient price discovery. In a very short time, it could restore public faith in the market and also become the market leader. Over the years, assisted by the capital market regulator SEBI and NSE, India's capital markets have made tremendous progress in terms of market size and depth, diversification of investor base and sophistication. It would be no exaggeration to say that NSE's journey so far has been transformational. Moving forward, NSE is committed to maintaining this 'transformational' journey in its strategy and operations. The key areas that NSE envisages to focus on in the medium term include facilitating listing and growth of SMEs and start-ups, nurturing hitherto underdeveloped markets (such as the corporate bond market) and developing new segments such as commodities, expanding retail footprint, globalising at a much larger scale, leveraging technology and focusing on better risk management and regulation. Efforts towards these ends have already begun. NSE is positive that under the guidance and leadership of SEBI, NSE can make transformational changes in the years to come.

Notes

*1 As per reports issued by Securities and Exchange Board of India.

*2 The World Bank's database on World Development Indicators. https://data.worldbank.org/products/wdi

*3 According to SEBI regulations, companies with post-issue paid up capital (face value) up to INR 250 million can raise funds and list on the SME platform, while companies with post-issue paid up capital (face value) between INR 100 million and INR 250 million have the option of migrating to the Main Board and vice versa.

*4 Financial services companies accounted for about 56 percent of funds raised through IPOs during the period January 2015 to December 2017 according to Prime Database.

*5 Constituent stocks of NIFTY 50 index account for 62 percent of free float market capitalisation as of 31 March, 2018.

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VIKRAM LIMAYE

Managing Director and CEO of the National Stock Exchange of India

Vikram Limaye is the Managing Director and CEO of the National Stock Exchange of India (NSE) which is the world's second largest exchange in cash market trades and one of the top three exchanges in index and stock derivatives volume.

Prior to joining NSE, he was the Managing Director & CEO of IDFC, a diversified financial services conglomerate. He started his professional career with Arthur Andersen in Mumbai in 1987 while pursuing his Chartered Accountancy and worked in the audit and business advisory services groups of Arthur Andersen, Ernst & Young and the consumer banking group of Citibank before going to the U.S. in 1994 to pursue an MBA. After completing his MBA, he worked on Wall Street for eight years with Credit Suisse First Boston in a variety of roles in investment banking, capital markets, structured finance and credit portfolio management before returning to Mumbai, India in 2004.

He has contributed to various committees of government and industry associations on a range of topics surrounding infrastructure, economic policy, markets, trade, and minority affairs. He has been a speaker at domestic and international conferences and has been a member of international government delegations for infrastructure and foreign direct investments into India. He has also been on the boards of various corporates, educational institutions and not-for-profit organisations.

He completed his Bachelors in Commerce from HR College of Commerce & Economics, a Chartered Accountancy, and an MBA in Finance and Multinational Management from the Wharton School of the University of Pennsylvania.

YOHEI KITANO

Nomura Institute of Capital Markets Research (Singapore)

Increasing Importance of Foreign Investors in India's Capital Markets

Foreign Investors Increasing Investment in India's Capital Markets

Foreign investors have a large presence in India's capital markets, especially its stock market, where they are making important contributions by supplying liquidity, enhancing market efficiency, and promoting stronger corporate governance.

Over the last six years, foreign investors have been increasing their investments in India's capital markets. According to data from National Securities Depository Limited (NSDL), the largest Indian central securities depository, foreign investors' holdings of Indian stocks at end-June 2018 totaled INR 27.7 trillion, a 2.4-fold increase from INR 11.6 trillion at the end of 2012. Over the same period, foreign investors' holdings of bonds issued by Indian issuers increased 2.4-fold from INR 1.7 trillion to INR 4.1 trillion (Figure 1).

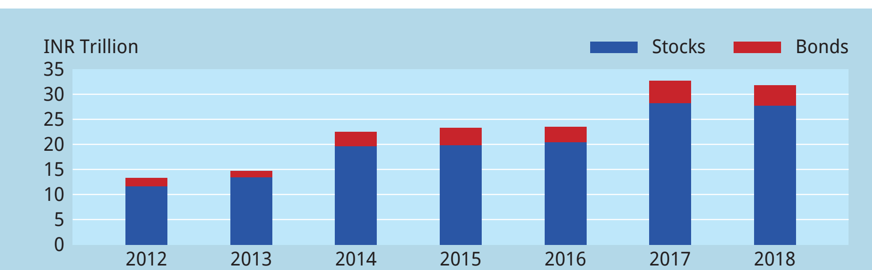
Among foreign investors, mutual funds are the largest holders of Indian securities. As of end-June 2018, foreign mutual funds' holdings of Indian securities totaled INR 15.1 trillion, 47 percent of foreign investors' total holdings. The next largest investor category is the so-called broad-based funds,[*1] which held Indian securities worth INR 5.6 trillion at end-June (18 percent of total foreign holdings).

By country, U.S. investors have invested the most in India, with total investments amounting to INR 10.5 trillion as of end-June 2018, 33 percent of all foreign investment in Indian securities. Among Asian countries, investment from Singapore is relatively high, at INR 2.7 trillion and 8.6% of all foreign investment as of end-June. The increase in investment from Japan has been rather prominent in recent years. Before 2015, Japan was not even ranked among the top 10 in the country rankings for investment in India, but as of end-June 2018 it ranks sixth. Japan's outstanding holdings of Indian securities at that point in time approached INR 1.2 trillion, including about INR 941 billion in stocks and INR 222 billion in bonds. Investments from Japan are mostly via investment trusts. According to the Japan Investment Trusts Association, Japanese investment trusts' total net assets invested in INR-denominated stocks and bonds totaled JPY 1.2 trillion at end-June 2018, nearly quadruple the JPY 297 billion at the end of 2005.

Reasons for Increased Investment by Foreign Investors

The main reasons for foreign investors increasing their investment in India's capital markets can be divided into macroeco-

Figure 1: Foreign Investors' Total Holdings of Indian Securities



Note: 1. Data for 2018 is as of end-June.
2. Investment in hybrid instruments is insignificant and therefore not included.
Source: NSDL

nomic factors and institutional factors.

Macroeconomic factors

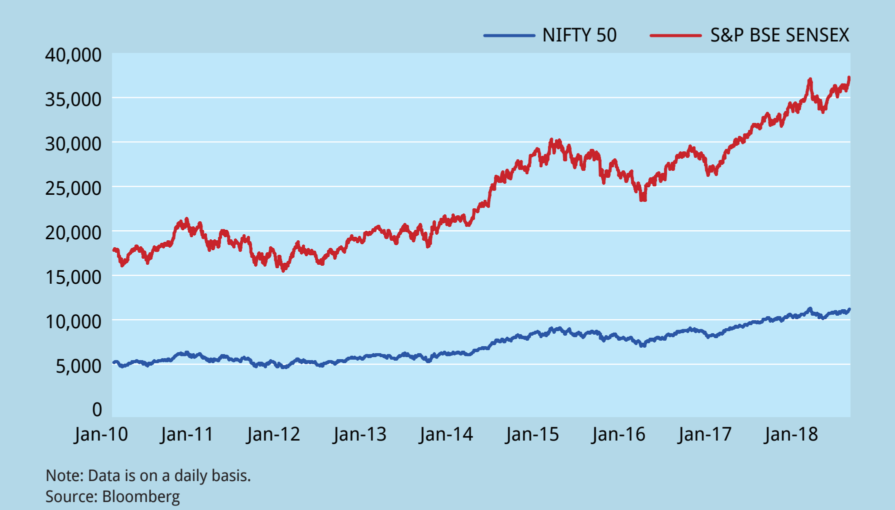
Since 2010, India's economy has expanded at an average annual pace of more than seven percent, and India is expected to sustain a high pace of economic growth going forward. According to the International Monetary Fund (IMF), India's real gross domestic product (GDP) growth from 2018 to 2023 is forecast to average about eight percent. The sudden demonetisation (invalidation of large banknotes) carried out in November 2016 and the Goods and Services Tax (GST) introduced in July 2017 caused temporary disruptions of economic activity in India, but robust private consumption and the government's aggressive investment in infrastructure appear to be supporting continued strong economic growth.

Although India has a constant current account deficit, in recent years the deficit has generally been kept at a low level. The deficit was 4.7 percent of GDP in FY2012-2013, but that ratio has been held less than two percent since FY2013-2014 thanks in part to reductions in gold imports and lower crude oil prices. The improvement has contributed to the stability of the rupee against the U.S. dollar in recent years, with INR/USD trending in the 0.014 – 0.017 range since 2014.

Also, the Modi administration that came to power in May 2014 has improved India's fiscal balance by restraining spending in a move toward fiscal consolidation. As result, the Indian government's fiscal account deficit has shrunk from 4.5 percent of GDP in FY2013-2014 to just 3.5 percent in FY2017-2018. This improvement prompted Moody's to upgrade its rating on India's sovereign debt from its lowest investment grade rating of Baa3 to Baa2 in November 2017.

Strong macroeconomic conditions have also contributed to a solid uptrend in India's stock market in recent years. India's National Stock Exchange's (NSE) NIFTY 50 stock index stood at 10,714 at end-June 2018, a strong 70 percent advance from 6,304 at end-December 2013 (Figure 2). The BSE's S&P BSE SENSEX index also climbed steadily during that same period, rising 67 percent from 21,171 to 35,423.

Figure 2: NIFTY 50 and S&P BSE SENSEX



Note: Data is on a daily basis.
Source: Bloomberg

Institutional factors

Institutional factors that have promoted increased investment from foreign investors include, first and perhaps foremost, simplification of the process for registering as a foreign investor in India. Prior to the simplification, foreign investors had to register as a Foreign Institutional Investor (FII), an FII sub-account, or a Qualified Foreign Investor (QFI) before they could invest in securities on Indian markets. To streamline the operation of the foreign investor system, in 2014 the Securities and Exchange Board of India (SEBI) unified these three foreign investor categories into a single category, the Foreign Portfolio Investor (FPI).

The main change made by this new FPI regime is unification of the system's management structure. Approval and registration of foreign investors was previously carried out by both the SEBI and India's central bank, the Reserve Bank of India (RBI). Under the new regime, registration of FPIs is granted by SEBI-approved custodian institutions, called Designated Depository Participants (DDPs). FPI trading also is now monitored by the DDPs.

In addition, approval procedures have become more efficient. Previously know-your-customer (KYC), or identity verification, procedures were the same for all foreign investor categories, but under the new regime KYC is carried out for each investor category. Foreign investors, or FPIs, are classified into three categories based on their risk profile. Category I includes central banks, governmental agencies, sovereign wealth funds, and international or multilateral organisations. Category II includes banks, asset management companies, investment trusts, insurance companies, pension funds, and university funds. Category III includes endowments, charitable trusts, foundations, corporate bodies, trusts, and individuals.

Under the new, more efficient regime, the number of registered foreign investors has steadily increased each year. As of end-June 2018, the total number of registered FPIs was 9,136, compared with 8,557 entities registered as FII, FII sub-accounts, or QFIs at the end of 2013.*[2]

The second institutional factor is the relaxation of bond investment regulations. In September 2016, SEBI decided to allow Category I and Category II FPIs to directly access the corporate bond market. Previously, FPIs had to invest in these bonds through brokers. In addition, in February 2017 SEBI approved FPI investments in unlisted non-convertible corporate bonds and securitised instruments. More recently, in April 2018, SEBI raised the cap on aggregate FPI investments in any central government security from 20 percent to 30 percent. Moreover, the requirement for FPIs to invest in government and corporate bonds with a minimum residual maturity of three years was withdrawn, subject to the conditions.*[3]

Main Obstacles to Attracting Foreign Investors

As shown above, the SEBI and RBI have implemented various measures designed to promote investment in India's capital markets by foreign investors. However, obstacles remain. The main unresolved issues are as follows.

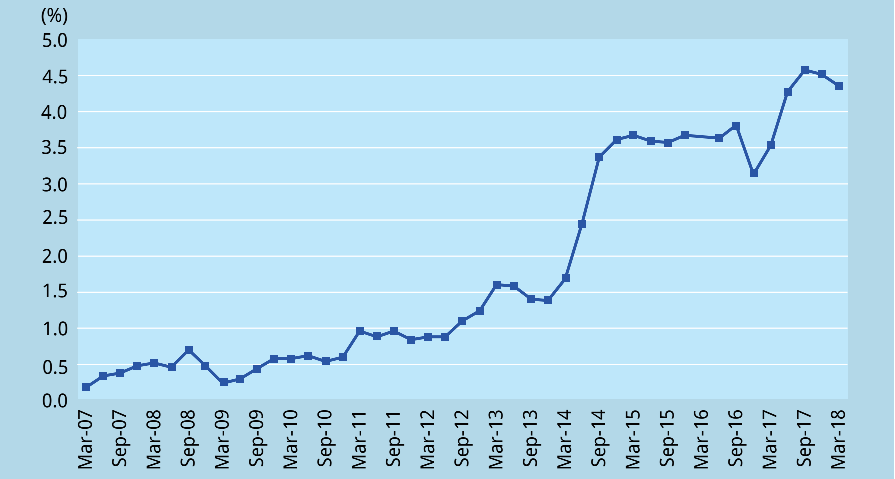
Limits on bond market investments

Foreign investors' presence in India's bond market is still quite small, with FPIs holding just 4.4 percent of total outstanding government dated securities as of end-March 2018 (Figure 3). While that ratio has been rising gradually, it remains much lower than foreign investors' share of the outstanding government bonds of other Asian countries such as Indonesia and Malaysia which stands at 39 percent and 29 percent respectively at end-March 2018.*4

The reason for this small ratio is the limit on FPIs' holdings of India's government bonds. To avoid volatile asset flows and maintain the stability of India's macro economy, SEBI has set a limit on FPI holdings of outstanding issues of Indian securities. As of end-June 2018, the limits are INR 2.86 trillion for central government bonds, INR 419 billion for state development loans (SDLs), and INR 2.67 trillion for corporate bonds. In 2014 when the foreign investor categories were unified under the FPI category, the limits on investment by foreigners were USD 30 billion (equivalent to INR 1.54 trillion) for government securities and USD 51 billion (equivalent to INR 2.44 trillion) for corporate bonds. Since then, the limits have been raised in stages. From October 2018, those limits are scheduled to be raised again, to INR 3.16 trillion for central government securities, INR 452 billion for SDLs, and INR 2.89 trillion for corporate bonds. The increases in these limits have opened up room for additional investments in India's bond market by FPIs, but FPIs' current holdings as a percent of the limit on those holdings is higher than it was in 2014 (Figure 4).

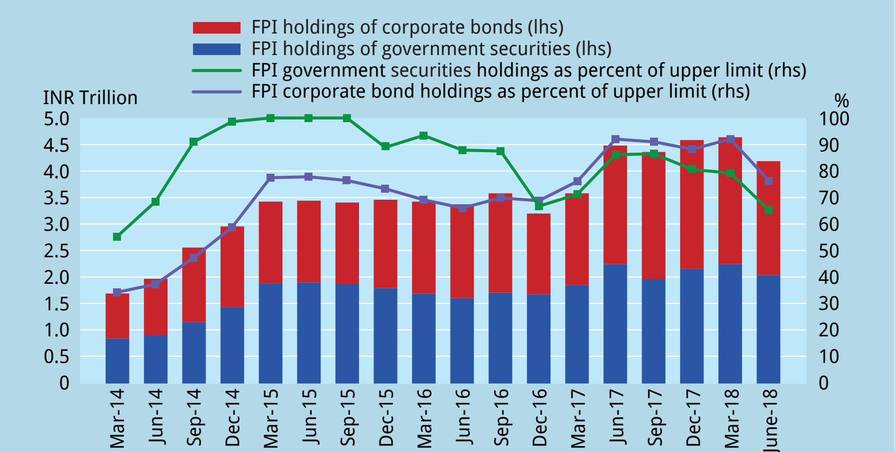
One negative aspect of the low ratio of FPI holdings to total outstanding government securities is that it precludes the inclusion of India's bonds in global bond indices maintained by major index providers. In general, inclusion in global bond indices requires a foreign investor holding ratio of at least 10–20 percent.*5 With index-linked investment on the rise, global investors have no real need to include India's bonds in their portfolios. Consequently, when global financial market volatility is rising, investors do not hesitate to pull funds out of the Indian market. For example, immediately after the U.S. Federal Reserve Board mentioned the possibility of tapering of its quantitative easing in May 2013, foreign investors withdrew a large amount of funds from India's bond market, leading to net outflows totaling INR 508.5 billion in 2013, which in turn led to a significant depreciation of the rupee.

Figure 3: FPIs' Share of Outstanding Indian Government Bonds



Source: RBI

Figure 4: FPI Holdings of Outstanding Indian Bonds as Percent of the Limits on Those Holdings



Source: NSDL, The Clearing Corporation of India Limited

Active offshore trading of Indian stock index futures

At present, the majority of trades in India's stock index futures are conducted in offshore markets. For example, stock index futures for the NIFTY 50 and S&P BSE SENSEX are both actively traded on the Singapore Exchange (SGX) and the Dubai Gold and Commodities Exchange. On the SGX, NIFTY 50 Index Futures transactions accounted for 14 percent of all stock future trades for the period from January to June in 2018. Moreover, trading volume of NIFTY 50 futures on the SGX exceeded that on the NSE as of 2017.*6

Indian equity derivatives trading volumes are also greater in offshore markets than in the domestic market. One reason for this is that foreign investors that have not registered with India's financial regulators have limited access to India's stock market. Previously, such foreign investors were able to access India's stock market by purchasing Participatory Notes (PNs) issued by FIIs. However, stricter reporting requirements for the issuance of PNs introduced since 2012 to strengthen measures against monetary laundering have led to a large reduction in foreign investors' investment in India's stock market via PNs. Meanwhile, offshore trading of Indian equity-related products has increased.

Tax-related obstacles

To date, India has adopted a tax system that is generally favourable for foreign investors. According to a survey implemented by PwC, around two out of three respondents felt that tax rates on capital gains from their securities investments in India were moderate or low.*7 While India still has a short-term capital gains tax and a securities transaction tax (STT) on transactions on securities, it abolished its long-term capital gains tax in 2004.

However, the Indian government's recent announcement that it was considering re-introducing the long-term capital gains tax as part of the Union Budget for FY2018-2019 sent shockwaves through the market. Moreover, it evidently does not intend to allow a deduction for STT paid when calculating capital gains, so essentially FPIs will be subject to double taxation in the form of the STT and a capital gains tax. India is the only major Asian country to have both a capital gains tax and an STT. If India's tax system continues to include such disadvantages for FPIs, the ability of India's capital markets to compete with the markets in other Asian markets could be reduced.

GIFT International Financial Services Centre — Promising New Global Financial Centre

With greater trading of Indian equity-related products on offshore markets than on the domestic market, India's major stock exchanges would like to see liquidity return to the home market. The Indian government established the International Financial Services Centre (IFSC) at the Gujarat International Finance Tec-City (GIFT), a special economic zone, aiming to make it a global financial hub. GIFT IFSC offers a wide range of financial services to resident and nonresident investors alike by attracting foreign financial institutions to set up local branches and/or subsidiaries inside GIFT. Stock exchanges, clearing houses, and depository institutions also are participants in GIFT. BSE inaugurated its operation within GIFT IFSC through its subsidiary India International Exchange (India INX) in January 2017, followed by NSE's launch of its subsidiary NSE IFSC in June 2017.

Foreign investors that have already registered as FPIs can make investments at GIFT IFSC without going through an additional registration process. In addition, foreign investors that have not registered as FPIs can participate as an Eligible Foreign Investor by passing a KYC process.

Tax incentives have been implemented as an added attraction to foreign investors to GIFT IFSC. Specifically, SST, commodity transaction tax, long-term capital gains tax, and stamp duty have been eliminated. In addition, removal of capital gains from the sale of short-term derivatives was proposed in the Union Budget for FY2018-2019 to promote greater participation by foreign investors.

GIFT IFSC mainly offers trading in Indian stock index and individual stock derivatives as well as global equity index and currency derivatives. In addition, FPIs are able to invest in commodity futures. Initially, trading on the India INX and NSE IFSC exchanges was limited to derivatives, but the breadth of available financial products was expanded to meet the needs of issuers and investors, and bond trading is now also available.

Reflecting investors' positive reaction to the initiatives described above, trading values on both the India INX and the NSE IFSC are on a gradual upward trend. Daily trading turnover was less than USD 100 million in June 2017 but one year later had expanded to over USD 700 million. Although the combined trading turnover of its two exchanges is still much smaller than those for the BSE and NSE, GIFT IFSC is listed as one of the 15 global financial centres likely to become more significant.*8

To further promote investment by foreign investors at GIFT IFSC, in May 2018 SEBI permitted investments via Segregated Nominee Account Structure. This structure enables foreign investors that do not register themselves to make investment in GIFT IFSC. As noted earlier, stricter requirements for the issuance of PNs reduced non-FPI foreign investors' exposure to India's equity market, but the ability to invest via Segregated Nominee Account Structure is expected to bring foreign investors back to Indian equities.

Foreign Investors Are One Key to Achieving the Indian Government's Policy Goals

The importance of attracting foreign investors to India's capital markets is not limited to increasing trading volume and expanding market scale. It also is a key to achieving the policy goals of the Indian government. Two government policies that capital markets are expected to play an important role in achieving are the promotion of infrastructure development and the use of renewable energy.

Promotion of infrastructure development

The quality of infrastructure in India is much lower than that in advanced nations.*9 Consequently, the promotion of infrastructure development is one of the biggest challenges to sustaining the high growth of the Indian economy. According to the Economic Survey 2017-18, it is forecasted that around USD 4.5 trillion worth of investments is required by India till 2040 to develop infrastructure. Private-sector funds will be indispensable to meeting the demand for funds required by India's need for enormous investment in infrastructure development. However, the limited amount of funds available via bank loans, currently the main source of private-sector funding, accentuates the importance of the capital markets. In addition to promoting the issuance of tax-free bonds by infrastructure-related agencies and long-term bonds for infrastructure development by banks, the government has introduced new types of infrastructure-related financial products.

One such product is infrastructure investment trusts (InvITs) whose regulations were introduced by SEBI in 2014. In March 2016 IRB InvIT established by IRB Infrastructure Developers, a major Indian real estate developer, was registered as the first InvIT in India. Currently, six trusts are registered with SEBI, two of which are traded on stock exchanges. To promote investment in InvITs, in January 2018 SEBI released a circular that allows strategic investors to invest not less than five percent and not more than 25 percent of the total offer size of a single InvIT.

In addition, the Indian government set up the National Infrastructure and Investment Fund (NIIF) in 2015 to promote funding of important national infrastructure projects. The government initially targeted size for NIIF of INR 400 billion, with a 49 percent capital contribution from the government and the remaining from domestic and international investors such as sovereign wealth funds, multilateral development banks, pension funds, and public sector enterprises. After discussions with some potential investors, in October 2017 NIIF entered into an investment agreement worth USD 1 billion with a wholly owned subsidiary of the Abu Dhabi Investment Authority. Next, in January 2018 NIIF announced that it had partnered with DP World, a Dubai-based port management company, to establish an investment platform for ports, terminals, transportation, and logistics businesses in India. While NIIF is moving forward at a gradual pace, it is expected to play a more important role in promoting foreign investors' participation in India's infrastructure sector.

Promotion of renewable energy use

India's government plans to expand the nation's renewable energy capacity to 175 GW by 2022.*10 Achieving that goal is estimated to require a funding of around USD 200 billion. It will be difficult for domestic banks and institutional investors to meet the huge demand for funds required by this ambitious plan. Foreign investors will therefore have an important role to play. From this perspective, the Indian government is increasingly focusing its attention on green bonds, which are growing in popularity among institutional investors, especially in the advanced economies.

SEBI issued a concept paper for issuance of green bonds in December 2015, and a circular on disclosure requirements for issuance and listing of green bonds in May 2017. Prior to these developments, Yes Bank, a major Indian commercial bank, issued an INR 10 billion green bond in February 2015, the first green bond by an Indian issuer. Thereafter, green bond issuance spread from banks to domestic corporations, such as major energy companies NTPC and Greenko.

To date, many green bond issues by Indian issuers have been in overseas markets, with SGX the preferred exchange for listings. However, in January 2018 Indian Railway Finance Corporation made the first green bond issue to be listed on the India INX, a USD 500 million bond. In March 2018, Indian Renewable Energy Development Agency issued an INR 19.5 billion green Masala bond, the first green bond to be listed on the NSE IFSC. Looking forward, GIFT ISFC is expected to assume a greater presence as a market for listing green bonds by domestic issuers to attract foreign investors.

In Conclusion

Foreign investors are expected to play an increasingly important role in India's capital markets, not just as providers of short- and medium-term funding to domestic issuers but also as a source of the stable long-term funding needed to support infrastructure development in India. To attract more foreign investors to its capital markets, India must create institutional frameworks that are more user-friendly and convenient for foreign investors while also raising corporate governance including disclosure standards to the levels seen in the world's more advanced economies.

Also, to increase the stability of its capital markets, India needs to raise awareness among domestic investors. The decline in bank deposit interest rates since the demonetisation has prompted more Indians to purchase mutual funds, thus broadening the nation's investor base. Given this changing environment, sufficient investment education will be made available to investors in outlying regions as well as to those in the nation's major cities.

Going forward, India's financial regulators and the stock exchanges have important roles to play in promoting investment by foreign investors and nurturing domestic investors in order to ensure the sound development of India's capital markets.

Notes

*1 A broad-based fund is a fund established or incorporated outside India that has at least 20 investors with no investor holding more than 49 percent of the shares or units of the fund.

*2 "FPI count grows marginally in 4 years," *Business Standard*, 28 June, 2017.

*3 Investment in government securities with residual maturity below one year by an FPI under either category must not exceed 20 percent of the total investment of that FPI. Also FPIs are only permitted to invest in corporate bonds with minimum residual maturity of above one year.

*4 These figures were obtained from AsianBondsOnline. https://asianbondsonline.adb.org/new/data-portal/

*5 "Jury is out on the impact of RBI's foreign portfolio investor measures," *Business Standard*, 7 May, 2018.

*6 ASIFMA. (2018) "Accessing India's Equity Markets – Reform, Perform and Transform."

*7 PwC. (2018) "Foreign Portfolio Investor Survey 2016-17-India moving in the right direction."

*8 Z/Yen and China Development Institute. (2018) "The Global Financial Centres Index 23."

*9 According to the World Economic Forum's "Global Competitiveness Report 2017-2018," India's quality of overall infrastructure ranks 46th among the 137 ranked countries and regions.

*10 Based on the Paris Agreement, an international framework for global warming countermeasures, the Indian government also has committed to reducing the greenhouse gas emissions intensity of its GDP by 33–35 percent below 2005 levels by 2030.

YOHEI KITANO

Senior Analyst, Nomura Singapore Limited NICMR

Yohei Kitano has been Senior Analyst at Nomura Institute of Capital Markets Research (NICMR) in Singapore since 2015. Prior to joining NICMR in 2014, he was seconded to the Ministry of Finance Japan and was engaged in enhancing financial cooperation with ASEAN countries as well as the Asian Bond Markets Initiative (ABMI) from 2012 to 2014. He was also seconded to the Japan Bank for International Cooperation (JBIC) where his main responsibility was providing loans to Indian companies from 2007 to 2009. He was an equity analyst covering Japanese small and mid-cap stocks from 2004 to 2006. He joined Nomura Securities in 2002.

Kitano earned a bachelor's degree in economics from Keio University in 2002. He is a CFA® charterholder.

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Panel Discussion at the 2015 Forum

Lord Mervyn King at the 2015 Forum

Since 2010 the World Economy Program has organized conferences on the global macro economy in partnership with the Brookings Institution (U.S.), Chatham House (UK), the Development Research Center of the State Council (China), Nomura Securities, Nomura Institute of Capital Markets Research and other organisation. Issues addressed included "Demographic Change, Economic Growth, and Fiscal Sustainability" and "Productivity, Technology, and Growth." Together with the Development Research Center of the State Council, China Center for International Knowledge on Development and Nomura Institute of Capital Markets Research the foundation has organised conferences bringing together experts from China and Japan to discuss capital market development in China and the lessons from Japan's experience. These conferences have covered such topics as "The Role of Capital Markets Encouraging 'from Savings to Investment'" and "Capital Markets and Development through Innovation." (A complete list of conference titles and programs can be found on the foundation's website http://www.nomurafoundation.or.jp/en/.)

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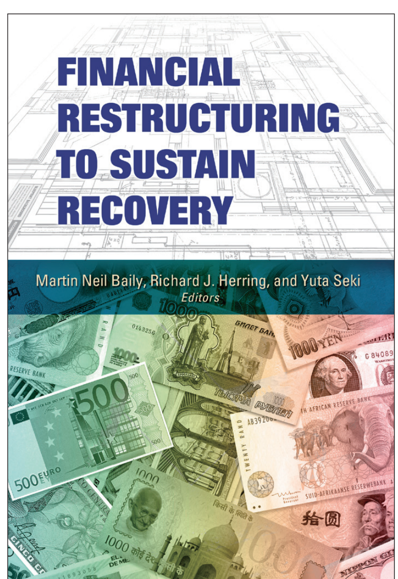

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NICMR research encompasses not only Japanese issues, but also covers timely issues concerning international capital markets. In addition to research offices in New York, London and Beijing, NICMR established a research office in Singapore in 2015 to strengthen its Asian research platform.

The continuous growth of China and the other Asian countries is generating huge funding needs for their infrastructure and it means that this region requires not only indirect financing systems but also robust capital markets. There is an urgent need to promote development of Asian capital markets, which are a key for the future of Asian financial systems and their economies.

Since the global financial crisis, people have become increasingly aware of problems that spread beyond national boundaries. As financial regulators around the world cooperate more closely, there is a greater need for recognition of regional differences. The role of Asia from the perspective of rulemaking and global standards is also increasingly important.

Our mission includes generating financial and capital market-related policy recommendations for Asian countries based upon fundamental analysis and comparative studies of experiences in Japan and other developed countries. We believe that there are lessons to be learned from Japan's experience when it comes to issues such as the need to increase the availability of direct finance and the need to increase the availability of investment services to cater to the growing number of middle-income households.

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publication@nomurafoundation.or.jp
http://www.nomurafoundation.or.jp/en/

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