INTERNATIONAL MONETARY FUND

INDIA'S FINANCIAL SYSTEM

Building the Foundation for Strong and Sustainable Growth

Editors

ALFRED SCHIPKE
JARKKO TURUNEN
NADA CHOUEIRI
ANNE-MARIE GULDE-WOLF

EXCERPT

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Note to Readers

This is an excerpt from ***India's Financial System*** edited by Alfred Schipke, Jarkko Turunen, Nada Choueiri, and Anne-Marie Gulde-Wolf.

Economic developments in India have significant global and regional implications. The Indian financial sector plays a critical role in the country's development and has provided an important foundation for strong and sustainable economic growth over the past three decades.

Chapter contributions discuss how to strengthen the financial system to support growth and reduce vulnerabilities by discussing the linkages between the financial sector and growth, improvements in bank lending to foster productivity, and measures to further develop India's corporate bond market. The book reflects on India's success in leveraging digitalization to foster financial inclusion and highlights how the financial system can help to address climate issues. This book digs deeper into the various facets of India's financial sector to understand its strengths and opportunities and to elicit policy actions that could help the financial sector better support India's growth potential.

This revised excerpt is taken from *uncorrected* page proofs. Please check quotations and attributions against the published volume.

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Contents

Foreword

India’s vibrant growth performance over the past three decades has lifted millions out of poverty. The country is now the third largest economy in the world (in terms of purchasing power parity), and developments in India have significant global and regional implications.

While the COVID-19 pandemic hit the country’s economy hard, India’s future remains bright, reflecting continued development opportunities and favorable demographics. Here, a financial system that is healthy and stable, but also vibrant—capitalizing on digital technologies and opportunities to support sustainable, green, and inclusive growth—will play a central role in enabling India’s enormous potential and boosting the standard of living of all its citizens.

With all the promise this holds, this book takes a comprehensive look at India’s financial system. In addition to providing the broad macro-financial setting, the book zooms in on key financial sector issues such as strengthening the banking and nonbank sectors, and fostering the development of capital markets to channel savings and investment to the most productive sectors of the economy. At the same time, the book analyzes how financial markets can contribute to the greening of the economy and how digitalization can foster financial inclusion—an area where India has been at the forefront, as I saw firsthand on my recent visit.

The development of India’s financial system will, however, also depend on complementary reforms ranging from monetary policy communication to policies to maximize stable capital inflows, while minimizing volatility—all topics of critical importance that are explored in this book. Finally, as financial sector soundness depends on a healthy corporate sector, the book also discusses insights from corporate stress tests and measures to further enhance private debt resolution frameworks.

The IMF is partnering closely with the Indian authorities on these issues on a range of fronts—including our regular annual policy dialogue (Article IV), technical collaboration, and also via our Financial Sector Assessments Program (FSAP). Furthermore, we are enhancing our engagement on many emerging topics including fintech and digital money, bringing together Indian officials and IMF staff to share experiences and emerging good practices, some of which are relevant for the IMF’s broader membership. The South Asia Regional Training and Technical Assistance Center (SARTTAC) in Delhi—generously supported by the Indian authorities—has hosted some of these engagements and thus been an important platform not only for capacity development in India but across the South Asia region.

I am so appreciative of the strong partnership the IMF enjoys with India. We look forward to continuing and building on this across all aspects of our cooperation, and notably as India embarks on its first ever G20 presidency in 2023.

Kristalina Georgieva
Managing Director
International Monetary Fund

Acknowledgments

As India leaves the COVID-19 pandemic behind, the economic recovery and the country's medium-term growth prospects will critically depend on the health of its financial system. This book provides a comprehensive review of India's financial system, analyzing both its development over time and its current structure with a view to identifying important strengths and areas for future reforms. It covers the nexus between growth in economic activity and the financial system and corporate sector vulnerabilities during the pandemic, as well as developments in the banking and nonbank sectors, corporate bond market, issues in green finance, fintech and financial inclusion, and capital flows and potential spillovers. The book also takes a look at supporting areas such as the role of recent reforms, including monetary policy communication during flexible inflation targeting regimes and the private sector debt resolution framework after the introduction of the Insolvency and Bankruptcy Code.

This book combines rigorous analysis with detailed institutional knowledge from authors from many IMF departments (Asia and Pacific, European, Monetary and Capital Markets, Research, Legal and Institute for Capacity Development), as well as the private sector and academia. The book has benefited from excellent contributions and insightful comments and feedback from many. In addition to the editors and authors of individual chapters, the book benefited from input and comments by Zamid Aligishiev, Elif Arbatli Saxegaard, Tamon Asonuma, Wouter Bossu, Luis Breuer, Carine Antoine Chartouni, Vu Thanh Chau, Hee Kyong Chon, Lorraine Pecarsky Coffey, Mariarosaria Comunale, Sonali Das, Udaibir Saran Das, Joy De Vera, Xiaodan Ding, Futoshi Narita, Russell Green, Alessandro Gullo, Naomi Griffin, Federico Grinberg, Phakawa Jeasakul, Joong Shik Kang, Nila Khanolkar, Romain Lafarguette, Sudip Mohapatra, Mico Mrkaic, Futoshi Narita, Hiroko Oura, Shanaka J. Peiris, Nathalie Pouokam, Cian Ruane, Damiano Sandri, Nimarjit Singh, Katrien Smuts, Sergio Sola, John Spray, Jan Strasky, Chia Yi Tan, Priscilla Toffano, Thierry Tressel, Filiz Derya Unsal, Laura Valderrama, and Rui Xu, and seminar participants at the Reserve Bank of India, the Indian Ministry of Finance, and the IMF's Asia and Pacific Department.

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PART I

Setting the Stage and Overview

CHAPTER 1

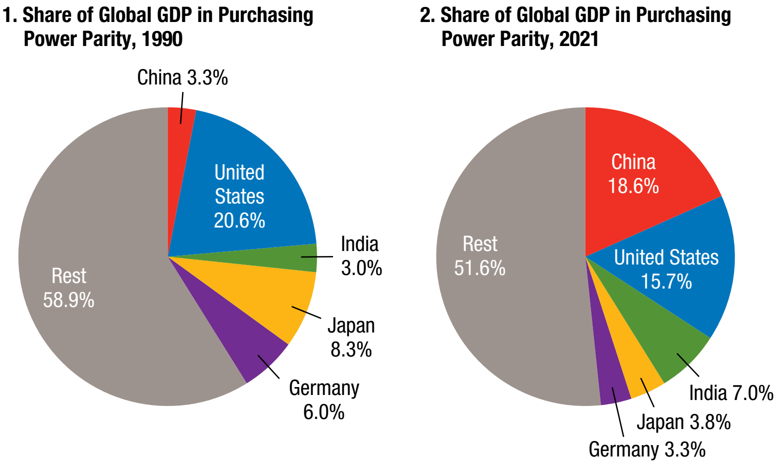
The Macro-financial Setting and Overview

Alfred Schipke, Jarkko Turunen, Nada Choueiri, and Anne-Marie Gulde-Wolf

INTRODUCTION

India has experienced a prolonged period of strong economic growth since it embarked on major structural reforms and economic liberalization in 1991, with real GDP growth averaging about 6.6 percent during 1991–2019. Millions have been lifted out of poverty. With a population of 1.4 billion and about 7 percent of the world economic output (in purchasing power parity terms), India is the third largest economy—after the US and China (see Annex Table 1.1.1, and Figure 1.1) and projected to be the most populous country in 2023 (see United Nations 2022). As such, developments in India have significant global and regional implications, including via spillovers through international trade and global supply chains. The Indian financial sector, the topic of the ten chapters in this volume, plays a critical

Figure 1.1. India's Share of Global GDP
(Percent)



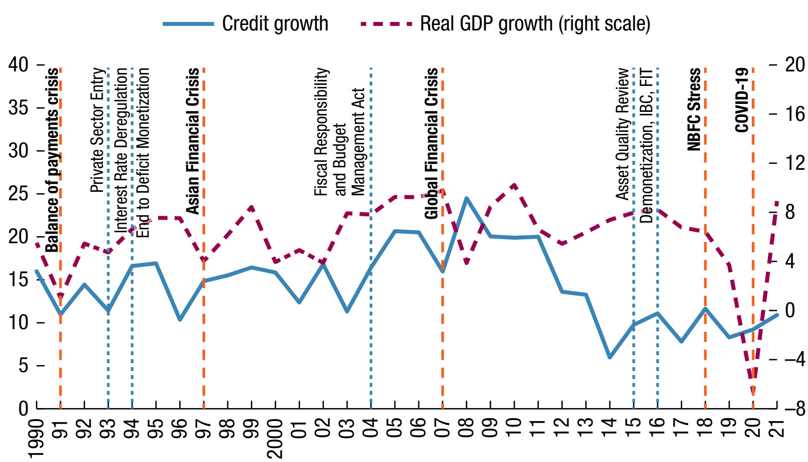
Sources: World Economic Outlook database; and IMF staff calculations.

role in the country's economic development and has provided an important foundation for strong and sustainable economic growth over the past three decades.

At the same time, India's economic development has not been linear and has been impacted by external and domestic shocks, some directly related to the financial sector. Indeed, India was not spared from external regional and global shocks, such as the Asian financial crisis (1997), the global financial crisis (2008), and more recently, the devastating impact of the COVID-19 pandemic (from 2020) and the war in Ukraine (2022). The economy has also been hit by domestic shocks. These included, for example, a period of excessive bank credit growth resulting in misallocation of credit and a subsequent and much-needed tightening of banking regulation (2014 and 2015) and the broader financial sector fallout from the default of a few nonbank financial companies (NBFCs) (2018) (see Figure 1.2).

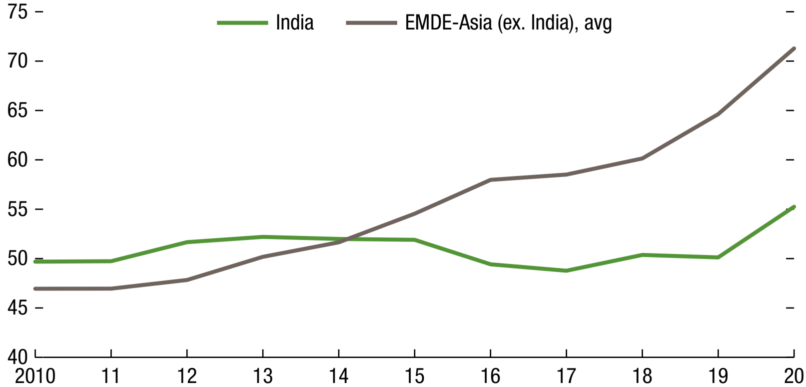
Not all shocks to India's economy have been adverse, however. Economic development has been supported by important reforms, from increasing the role of the private sector in the banking sector (from 1993 onward) to the introduction of flexible inflation targeting and the Insolvency and Bankruptcy Code (IBC) (both in 2016). These reforms have contributed to financial deepening (see Figure 1.3) As such, the 30 years since 1991 highlight that even though external shocks are outside the direct control of domestic policymakers, continued structural reforms and maintaining the health of the financial sector are critically important for India's growth performance (see Annex Table 1.1.2).

Figure 1.2. Key Shocks and Reforms
(Credit and GDP growth, percent)



Sources: Country authorities; Haver Analytics; and IMF staff calculations.
Note: The data refer to total credit to the economy. Red dashed line refers to shocks and the light blue dashed line to reforms. FIT = Flexible Inflation Targeting; IBC = Insolvency and Bankruptcy Code; NBFC = nonbanking financial company.

Figure 1.3. Financial Deepening
(Credit to GDP, percent)



Source: Global Financial Development Database, World Bank.
Note: EMDE-Asia (ex. India) includes average of Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Fiji, Indonesia, Japan, Malaysia, Maldives, Micronesia, Mongolia, Myanmar, Nepal, Papua New Guinea, Philippines, Solomon Islands, Sri Lanka, Timor-Leste, Tonga, Vanuatu, and Vietnam. 2019 does not include Micronesia, Sri Lanka, and Tonga. 2020 does not include Cambodia, Micronesia, Papua New Guinea, Sri Lanka, and Tonga. avg = average; EMDE = emerging market and developing economies.

Developments over the past few years illustrate this point. India's economy was already slowing prior to the COVID-19 pandemic, reflecting a decline in private sector demand. The pandemic and the initial, relatively stringent, lockdown caused a deep and broad-based economic downturn in 2020, followed by a further temporary slowdown in activity during the second pandemic wave in 2021, with potential for adverse social and longer lasting impact. To minimize the economic and social consequences of the pandemic shock, policymakers responded with fiscal support—including scaled-up support to vulnerable groups—wide-ranging monetary policy easing, liquidity provision, and accommodative financial sector and regulatory policies. Important financial sector measures included a temporary loan moratorium, financial support to firms through measures such as the Emergency Credit Line Guarantee Scheme, and the temporary suspension of firm resolution through the IBC (see Chapter 9 on addressing corporate sector vulnerabilities). Most pandemic-related support measures have by now expired.

The pandemic-related downturn has been followed by a strong rebound in economic activity, with output in most sectors (except for contact-intensive services) recovering to pre-pandemic levels by end-FY2021/22. Credit growth has increased, thus strengthening financial sector support to economic activity, and credit quality indicators have improved, reflecting stronger corporate and financial sector balance sheets. Despite the expiration of the pandemic-related support measures, banks have seen their nonperforming asset ratio decrease and capital ratio increase. The balance sheets of NBFCs have also improved.

India's long-term growth outlook is positive. Strong population growth in recent decades has delivered a young labor force with the promise of significant economic dividends. And India's lower-middle income status suggests the possibility of a significant catch-up in the years ahead. Realizing its medium-term growth potential (currently estimated at about 6 percent) and further growing that potential depends, however, on steadfast implementation of a broad structural reform agenda. For example, long-standing reform priorities include infrastructure investment to overcome bottlenecks, land and labor reforms, better governance, and improved education outcomes. Each of these will help maximize long-term growth. Structural reforms would need to be accompanied by a strengthening of social safety nets and adequate support to those that may be adversely impacted during the transition.

Alongside the above-mentioned reforms, further financial development and increasing financial sector efficiency and strength would also be needed to further expand India's growth potential. A well-functioning financial sector would help channel resources to their most productive uses, supporting the creation of physical capital and the buildup of human capital, thereby raising growth. This book digs deeper into the various facets of India's financial sector to understand its strengths and opportunities and to elicit policy actions that could help the financial sector better support India's growth potential.

INDIA'S FINANCIAL SYSTEM: AN OVERVIEW

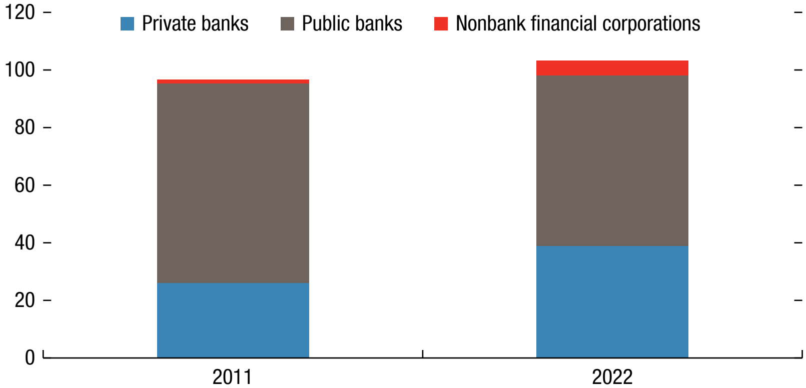
In line with India's strong growth performance, the country's financial system has grown. At the same time, the structure of India's financial system has also changed, as reflected, among other things, in the growth of NBFCs, greater reliance on market-based financing, and the emergence of digital money and financing.

Financial intermediaries, especially public sector banks, still dominate India's financial system (see Figure 1.4). Twelve public sector banks accounted for 60 percent of total bank assets. The remaining 40 percent includes 22 domestic private sector banks and 46 foreign banks operating in India. There were also some 100,000 regional rural, urban cooperative, and rural cooperative banks, reflecting the regional diversity of the country.

Following the asset quality review and tightening of banking regulation in 2015 to deal with risks after years of strong bank credit growth, less regulated NBFCs grew rapidly. This resulted in NBFC credit growth in 2018 of about 30 percent, partly filling the gap created by slower bank credit growth.[1] Especially, micro, small, and medium enterprises (MSMEs) benefited from NBFC loans.

[1] As of January 2021, 9,507 NBFCs were registered with the Reserve Bank of India, of which 64 were deposit-taking (NBFCs-D) and 292 systemically non-deposit-taking NBFCs (NBFCs-ND-SI). Nonfood credit excludes credit provided (to state agencies) to ensure deep food distribution and is widely used to monitor credit growth in the Indian economy.

Figure 1.4. Financial Intermediaries
(Share of nominal GDP)



Sources: Reserve Bank of India; Haver Analytics; Statista; and IMF staff calculations.

In 2018, however, Infrastructure Leasing and Financial Services, a systemically important NBFC, defaulted, representing an important shock to the sector that led to further defaults and negative spillovers to the rest of the financial system and the real economy.[2] Since then, regulation and supervision has been tightened, with the new scale-based regulatory framework bringing regulation of NBFCs closer to bank regulation, especially for the 25–30 largest institutions. Given the nonsystemic position of smaller NBFCs and associated regulatory burden, the regulation for these institutions remains less onerous. The banking sector remains closely connected to, and has been an important source of financing for, the NBFC sector (see Chapter 3 on the development of bank and NBFC sectors). Ongoing NBFC regulatory reform agenda focuses on tighter capital, provisioning, and large exposure requirements for the largest NBFCs.

Market-based financing is also playing an increasingly important role in India's financial system. From a low base, the bond market has grown rapidly over the past 10 years and total outstanding debt amounted to about 80 percent of GDP at the end of 2021. The attractiveness of India's bond market for international investors has also increased, given the prospect of the inclusion of the country's bonds in global bond indexes such as the Bloomberg, FTSE, and JPMorgan Chase & Co. bond indexes, which by some estimates could lead to a passive inflow of \$30–\$40 billion.[3] While foreign bond holdings of 2 percent are currently low, that share could rise quickly, as China's inclusion in global bond indexes a few years earlier has demonstrated. At the same time, the corporate debt

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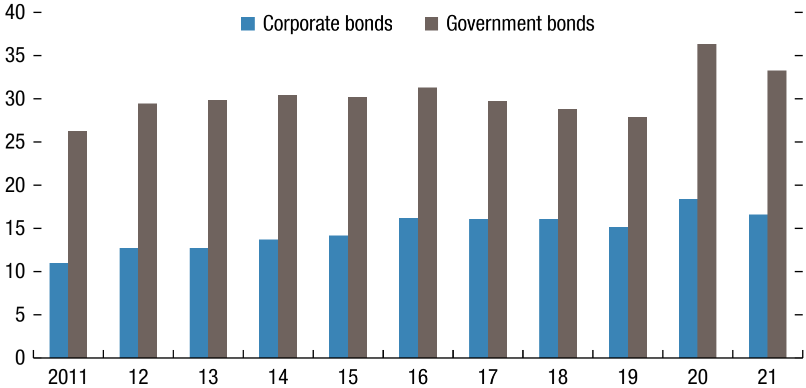
[2] Infrastructure Leasing and Financial Services default was followed by default of Dewan Housing Finance Corporation, resulting in broader concerns about the health of the NBFC sector as a whole.

[3] Estimates vary; see, for example, Morgan Stanley 2021: India: Primed for Bond Index Debut.

Figure 1.5. Outstanding Government and Corporate Debt Securities
(In percent of GDP)



Sources: Haver Analytics; Reserve Bank of India; and IMF staff calculations.
Note: Data show outstanding debt securities for the fiscal year. India's fiscal year runs from April to March (e.g., 2020/2021 data are for March 2020 until April 2021).

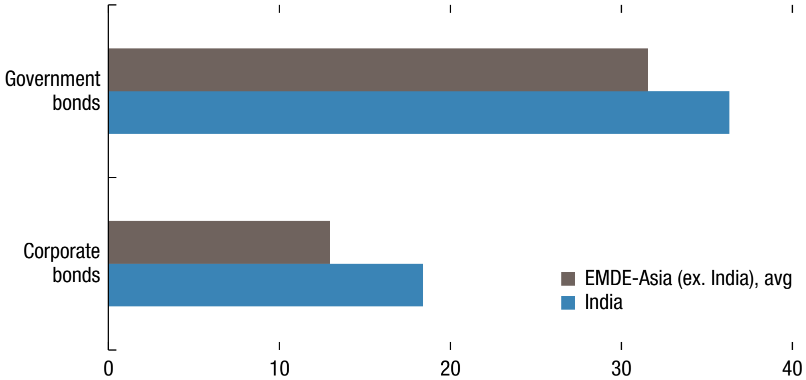
market currently accounting for about 18 percent of GDP still has a lot of room for development (see Chapter 5 on the development of the private debt market) (see Figures 1.5 and 1.6). India's equity market capitalization has also grown significantly, albeit with fluctuations, and recently became the fifth largest in the world in March 2022, after the US, China, Japan, Hong Kong SAR, and China, and ahead of the UK and Canada (see Figure 1.7).[4]

Measures of financial sector development, such as bank-credit-to-GDP ratios, equity market capitalization, and the value of outstanding bonds, however, do not fully capture India's financial sector development.[5] For example, measures to foster financial inclusion, including by strengthening the digital payment infrastructure, have significantly contributed to India's financial sector development. India has developed a sophisticated and efficient digital payments infrastructure. Among important innovations, the Unified Payments Interface, an interoperable payments platform, has fostered innovation and attracted the private sector with new technologies and products to different segments of the population, thus enhancing financial inclusion (see Chapter 7 on fintech and financial inclusion). Furthermore, the framework for payments is integrated into a broader digital platform that combines elements such as digital identity, data, and payments (known as the

[4] India breaks into world's top five club in terms of market capitalization | Business Standard News (business-standard.com) https://www.business-standard.com/article/markets/india-breaks-into-world-s-top-five-club-in-terms-of-market-capitalisation-122031200004_1.html#:~:text=India%27s%20equity%20market%20has%20broken,and%20Canada%20(%243.18%20trillion).

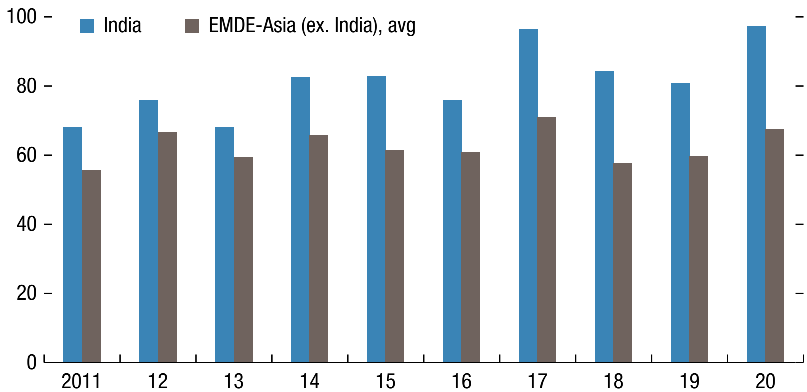
[5] The discussion in this book does not cover a broader set of nonbank financial institutions, such as insurance companies, pension funds, and investment funds.

Figure 1.6. Outstanding Government and Corporate Debt Securities
(In percent of GDP)



Sources: Haver Analytics; and IMF staff calculations.
Note: EMDE-Asia (ex., India) includes Bangladesh (2017), China (2021), Malaysia (2021), Philippines (2014), Thailand (2021), and Vietnam (2017). Data on India are for 2020. avg = average; EMDE = emerging market and developing economies.

Figure 1.7. Equity Market Capitalization
(In percent of GDP)



Sources: World Development Indicators, World Bank; and IMF staff calculations.
Note: EMDE-Asia includes Bangladesh, China, Indonesia, Malaysia, Philippines, Sri Lanka, Thailand, and Vietnam. avg = average; EMDE = emerging market and developing economies.

India Stack). Ongoing efforts, such as innovations that allow the use of low-tech cell phones to engage in financial transactions, will further strengthen financial inclusion. Progress has been achieved in a relatively short period of time, with strong synergies between the public and private sectors. Looking ahead, the Reserve Bank of India (RBI) is planning to begin the phased implementation of a central bank digital currency (CBDC) by March 2023, with potential to further

enhance the digital payments landscape. More than 100 other countries are researching or piloting CBDCs in some manner. While CBDCs offer benefits, they may also raise risks, including risks to financial stability, so it is important to manage these risks with appropriate design of CBDC and within legal and regulatory systems that maximize its benefits and minimize its risks.

India's last financial sector assessment (FSAPs) in 2018 highlighted the rapidly changing structure and development of the system.[6] It also listed recommendations to (1) reduce vulnerabilities, (2) further strengthen the framework for financial sector oversight, and (3) foster market development. Since then, the country has made several advances in addressing the recommendations (see IMF 2018 and IMF 2021). For example, in the banking sector, the number of public sector banks was reduced from 20 to 12, and in 2021 the government announced plans to privatize two additional banks. Important progress has also been made in improving public sector bank governance; bank recapitalization; corporate debt restructuring; regulation, supervision, and oversight of financial market institutions; and crisis management.

In 2019, the government announced stronger governance measures allowing banks to recruit chief risk officers from the market, making management more accountable to boards of directors, increasing the role of externally appointed board directors, and increasing flexibility in adjusting compensation of management. To deal more effectively with nonperforming loans, new regulation was introduced in 2019 giving banks more flexibility in the loan resolution process, detailed restructuring schemes were reintroduced during COVID-19, and the authorities established National Assets Reconstruction Company Limited to deal with distressed assets (see Chapter 10 on strengthening private debt resolutions frameworks). Also, both public and private sector banks increased their capital. Despite these measures, the financial sector reform agenda remains substantial.

As in other countries, India's financial sector is also confronted with new challenges, including the impact of climate change and the need to adapt. Further digitalization of financial systems, in turn, brings many opportunities to build on progress in improving access to financial services to economically disadvantaged populations. Financial innovations and rapid financial sector development, however, also present continuous challenges for financial sector regulation and supervision, which constantly need to be upgraded to allow the healthy development of the financial sector while avoiding risk buildup.

STRENGTHENING INDIA'S FINANCIAL SYSTEM

What should be done to strengthen the financial system to support growth and reduce vulnerabilities? This book sets itself to answer that question through discussing the linkages between the financial sector and growth, how to improve

[6] IMF conducts FSAPs in G20 countries about every five years. The last FSAP was conducted in 2017 with the report published in January 2018. India's next assessment is currently planned for 2024.

bank lending to foster productivity, and measures to further develop India's corporate bond market. The book also reflects on India's success in leveraging digitalization to foster financial inclusion and highlights how the financial system can be helpful in addressing climate issues through the development of India's environmental, social, and governance (ESG) financial markets.

Chapter 2 discusses linkages between India's financial sector and growth. A country's financial sector plays a key role in the allocation of scarce resources and impacts the economy in the short and long term. Economic fluctuations can be amplified and directly linked to the financial sector given relationships (comovements) among credit, asset prices, and the real economy. Also, the health of the banking sector can constrain bank lending. Having a good understanding of these relationships can guide policymakers in increasing financial sector resilience and reducing bottlenecks to foster economic growth.

Two approaches are used to analyze the linkages between India's financial sector and growth. The first approach uses a framework—Growth-at-Risk—to relate contemporaneous macro-financial variables to future growth. The results suggest that higher credit and lower nonperforming loans are associated with higher real GDP growth. In fact, a negative shock to credit and leverage could imply lower growth in the short and medium term, as well as higher tail risks. Furthermore, policies to support credit growth and to strengthen balance sheets would be particularly important during periods of low economic growth.

The second approach focuses on whether bank capitalization plays a role in determining banks' ability to provide credit to the economy. Indeed, the results suggest that the level of capitalization is critical for credit and thus economic growth, especially for private sector banks. The relationship is weaker, however, for public sector banks, possibly reflecting a perception of implicit guarantees—that is, the government would step in to bail those banks out—as well as directed lending.

Both approaches, however, highlight the importance of resolving nonperforming loans (the focus of Chapter 10 on strengthening private debt resolution frameworks) and strengthening capital buffers to foster credit growth and, ultimately, real economic growth.

Chapter 3 discusses financial sector development and presents an overview of nonbank financial companies. The importance of public sector banks in India's financial sector goes back to the nationalizations of 1969 and 1980. Since then, public sector banks have played a key role in the sector, including support for lending to priority sectors and efforts to foster financial inclusion. Following strong credit growth during the 2000s related to corporate lending to support infrastructure—which continued throughout the 2008 global financial crisis when domestic private and foreign bank credit growth slowed—public sector bank asset quality started to deteriorate. The RBI's Asset Quality Review in 2015 led to a sharp increase in nonperforming loans, a deceleration in credit growth, and a decline in profitability and capital. Subsequent banking reforms and recapitalizations facilitated balance sheet cleanup and mergers, which saw the number of public sector banks decline from 27 to 12.

The tightening of bank regulation and a slowdown in bank credit growth during the first half of the 2010s in turn was associated with regulatory arbitrage and a surge in lending by NBFCs. In 2021, the almost 10,000 NBFCs accounted for about 25 percent of commercial bank loans. NBFCs tend to rely more on bank borrowing and market funding. Given their specialization within a few loan segments, including real estate and infrastructure, NBFCs have less-diversified portfolios. Most NBFCs are private, while government-owned entities account for about 40 percent of assets.

The default of two NBFCs in 2018 highlighted the risk of spillovers and contagion, with negative feedback loops from NBFCs to financial intermediaries, a credit crunch, corporate defaults, and subsequent further weakening of NBFC balance sheets. Since 2019 and the subsequent COVID-19 shock, the RBI has taken steps to strengthen NBFC regulation and supervision. These included guidelines to enhance liquidity risk management and the introduction of a scale-based framework classifying NBFCs by characteristic, including size and whether they were deposit taking. This led to a regulatory convergence between banks and certain types of NBFCs. Given that today NBFCs play an important role in the financial sector, including financing to segments of micro-small and medium-size enterprises, it is important to increase the resilience of NBFCs and to minimize potential spillovers to the banking sector. This calls for further strengthening of regulation to facilitate diversification of NBFC funding sources as well as limits on bank borrowing by NBFCs.

Chapter 4 examines whether banks deliver on their mandate to channel credit to productive activities. To maximize India's long-term growth potential, efficient allocation of factors of production (capital and labor) is paramount. Indeed, income and productivity gaps between advanced and emerging economies are frequently attributed to capital misallocation and related factors. Given the large role of banks in India's financial system, it is thus important to understand whether bank credit flows to the most productive sectors and firms.

Because India's banking sector is dominated by public sector banks, the empirical analysis focuses on the link between credit growth, firm productivity, and bank ownership. It uses firm-level data from the Centre for Monitoring Indian Economy's Prowess database and bank-level financial information from the Reserve Bank of India's Database on Indian Economy from 2005 to 2020. Key variables of interest include the stock of bank credit and sales scaled by physical capital (plant, property, and equipment) to measure firm capital productivity. The regression analysis controls for firm size, age, sector, asset quality, interest coverage, leverage, and whether banks are owned privately or publicly.

The analysis reveals that the link between productivity and bank credit growth is weaker for firms with significant ties to public sector banks, especially in years when public sector banks represent a large share of new credit. These results are driven by large firms, which account for the lion's share of credit in India. Large flows of credit to unproductive firms represent important missed growth opportunities for more productive firms. These insights suggest that in addition to important policies to strengthen India's public sector banks—such as continued

recapitalization and the establishment of the National Asset Reconstruction Company Limited to alleviate problems with bad loans—further bank privatization, as envisaged by the government, and measures to improve governance of public sector banks would be important to reduce capital misallocation.

Chapter 5 takes a close look at India's corporate debt market. India's financial system is still largely bank based, and further reforming the banking system by improving governance and privatizing banks will foster access to credit to underserved sectors and companies. At the same time, India's capital markets are increasingly important in allocating savings and investment. Its corporate bond market in particular still has significant room to develop, which would increase competition, foster access to long-term financing, allow better risk management, and support lending to innovative sectors.

Government bonds accounted for 68 percent of the fixed-income market in 2021 and corporate bonds accounted for 20 percent. Prior to the failure of an NBFC in 2018 and the ensuing credit squeeze, and before the COVID-19 shock in 2020, the corporate bond market grew at an average annual rate of 17 percent (2011–18). The uncertainty triggered by these two shocks and the significant increase in issuance of government debt, however, contributed to a decline in corporate bond issuance as a share of the total fixed-income market in 2019 and 2020.

The Indian corporate bond market has several features that are worth mentioning. It is dominated by private placements rather than by public offerings. Smaller firms especially are likely to be challenged in meeting disclosure requirements for public issuance and listing of their debt and greater difficulties in absorbing the implied cost of credit rating agencies. Yet at the same time, concentration risk seems to have increased, in that larger issues are becoming more systemic. While the COVID-19 pandemic led to an unsurprising shortening of maturities, average maturities had increased in the decade leading up to the pandemic. India's bond market is dominated by local currency issuance (70 percent), but offshore issuance has been rising steadily, broadly in line with other emerging markets.

While much progress has been made over the past decade in strengthening legal and regulatory frameworks, scope exists for further improvements, including on implementation and enforcement. The corporate bond market would particularly benefit from better creditor rights, stronger market and rating infrastructures, measures to improve bond liquidity and credit risk management, and efforts to broaden the investor base.

Looking at the sectors for corporate bond issuance highlights the potential for India's bond market to support growth. Almost 70 percent of all corporate bond issuance now takes place in the financial sector and, even within the industrial sector, almost 90 percent of issuance is related to financial services such as banking and housing finance. Hence, the potential for the nonfinancial sector to grow is large both in absolute and relative terms. Comparisons with emerging market peers also suggest significant potential for the market to grow. Further developing India's corporate bond market will increase access to finance and foster economic growth.

Chapter 6 documents the evolution of green finance in India. Climate change is anticipated to have large economic and social costs, calling for policymakers and the private sector to react decisively in adapting to and mitigating its impacts. For the financial sector, climate-related events can undermine stability, yet the sector can also play a critical role in channeling resources to sustainable sectors. By considering ESG factors, for example, asset managers can be crucial to efforts combatting climate change and reducing carbon footprints. Although efforts to promote ESG in finance started some three decades ago, they have accelerated over the past few years, including in India.

India is highly vulnerable to the effects of climate change. In 2021, India pledged to reduce carbon intensity—that is, the amount of goods produced per unit of energy—by 45 percent by 2030 (from 2005 levels) and to achieve carbon neutrality by 2070. In this context, India's ESG market (equity and bonds) could play an important role in helping finance climate mitigation efforts. While ESG-related bond issuance surged in 2021, it is still only a small fraction of India's total bond issuance (accounting for about 2 percent). The same is true for assets under management of ESG-related equity funds. Within the universe of ESG bonds, green bonds accounted for 80 percent of issuance in 2019–2021, while social and sustainability-linked bonds accounted for the remaining 20 percent, a share that is broadly in line with other emerging markets. About 90 percent of Indian green bonds are issued in US dollars, which compares to 60 percent in other emerging markets (excluding China and India). This is quite notable given that, for the overall corporate bond market, most bonds are issued in local currency. In addition, Indian green bonds tend to have shorter maturities and higher coupon rates than other emerging markets, reflecting the weaker fundamentals of corporates (i.e., lower credit ratings) and more limited investor base.[7]

How can India deepen and broaden the development of the sustainable finance market? Promoting the adoption of principles, in line with the International Capital Market Association green bond principles, would provide information about the environmental impact of investment. Critically important is the availability of reliable data for financial sector stakeholders to assess financial stability risk, properly price and manage ESG-related risks, and take advantage of opportunities arising from the transition to a green economy. Guidelines issued by the Securities and Exchange Board of India are likely to address some of the issues related to disclosure, such as India's relatively low ESG disclosure score (25 percent compared to 40 percent in the US).

Chapter 7 presents India's impressive progress in advancing financial inclusion, largely aided by digitalization. Both the theoretical and empirical literature suggests that financial inclusion—improved access to finance via payment systems, loans, savings, insurance, and wealth management—helps boost economic growth and reduce inequality. In this, India is a useful case study in how to leverage digital technology to foster financial inclusion and thus economic growth.

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[7] In January 2023, the RBI issued its inaugural sovereign green bond in local currency raising about $1 billion.

As recently as 2011 only 35 percent of the population had bank accounts, significantly below the average of other emerging markets. However, several important policies focusing on digitalization changed this significantly. Some of the measures included the following:

1. Introducing a biometric digital identification system (Aadhaar) in 2010
2. Rolling out a scheme to provide all households with bank accounts with convenient access through a debit card (RuPay) in 2014 (called Pradhan Mantri Jan Dhan Yojana or PMJDY, which in turn could be linked to Aadhaar and was subsequently also used for the transfer of government social benefits)
3. Launching the Unified Payments Interface in 2016, allowing interoperable, and real-time interbank transactions through various payment platforms

The large scale and low unit cost of operating Aadhaar led to the enrollment of 1 billion people and increased access to financing. The PMJDY scheme has resulted more than 450 million new bank accounts (33 percent of the population).

Despite the progress, the reform agenda remains large. A large share of the population, especially those who are economically disadvantaged and those in rural areas, still do not have access to financial services, and usage remains a major challenge. Based on the IMF Financial Access Survey, India had among the lowest mobile and internet transactions and debit card use among peers in Asia and the Pacific region in 2020.[8] A Reserve Bank of India subindex also shows low usage of digital services and limited progress for the period 2017–2021. A likely factor here is the lack of financial and digital literacy. Also, the digital divide remains large: men are more likely to own mobile phones than women (20 percentage points), digital penetration is largely limited to urban areas, and almost 57 percent of the poorest households do not own a smartphone. Estimates suggest that an increase in the adoption of digital financial payments to the level in China, for example, could increase India's GDP per capita by 3–4 percentage points. The impact is likely even greater given that other components of digital finance (such as savings, credit, and insurance) could positively impact growth.

Hence, it is of paramount importance to continue efforts to ensure equal access to digital infrastructure and to support reforms to foster usage, including by improving financial and digital literacy. These need to go hand in hand with the strengthening of policy frameworks for digital finance, including consumer protection, data privacy, and cybersecurity, to ensure financial stability.

LINKAGES AND SUPPORTING REFORMS

Apart from reducing financial sector vulnerabilities, increasing the system's resilience and fostering its development, an efficient allocation of savings and investment calls for supporting reforms. These include measures to reduce vulnerabilities that originate in the private sector and the resolution of debt overhangs stemming from private companies and households. Also, to reduce financial market

[8] This may reflect in part, the use of the Unified Payments Interface which facilitates payments, for example, by scanning QR codes.

volatility, it is important to have a good understanding of spillovers and the role of policy frameworks, including monetary policy communication.

Chapter 8 reviews trends and risks in capital flows. Given India's still relatively low per-capita income, favorable growth prospects, demographic trends, and development needs, the country continues to benefit from foreign capital inflows supplementing domestic investment and allowing households to smooth consumption. Stable capital inflows can also alleviate any funding pressure stemming from higher COVID-19-related public debt levels.

Initially, India has been gradually focusing capital account liberalization on foreign direct investment (FDI) and equity. Recent FDI and portfolio inflows into equity markets have amounted to about 2.5 percent of GDP annually[9] and have been historically less volatile than regional peers. At the same time, foreign inflows into debt markets remain relatively small compared with peers. More recently though, authorities have gradually eased restrictions on debt flows, accompanied by more favorable investment regimes for government and corporate debt. The prospect of India's inclusion in global bond indices could lead to sizable passive inflows, with additional scope for ESG-related inflows.

Although capital inflows can bring benefits, they could also carry risks given that portfolio flows are more volatile and susceptible to changes in global risk appetite, with implications for financial system stability. Surges in inflows can arise during domestic credit booms and asset price bubbles. Sudden reversals in turn can lead to abrupt financial sector tightening, lower asset prices, and tighter bank lending conditions. Indeed, India has experienced episodes of strong inflows and sharp reversals, such as during the 2008 global financial crisis, the 2013 taper tantrum, the 2020 COVID-19 shock, and in 2022 the impact of the war in Ukraine and tightening on global financial conditions. Thus, it is important to analyze the level of flows as well as the cycle, that is, the nature of "extreme" flows, especially because domestic and external shocks impact them differently. Signs exist that since the global financial crisis, capital flow cycles in India have shortened and have been associated with greater capital flow volatility.

While some degree of capital flow volatility is unavoidable in times of shocks or stress, policies can help contain such volatility. To minimize adverse spillovers from external shocks, it is crucial that the authorities continue to strengthen domestic policy frameworks and communication about the direction of reforms and policies. For example, a clearly communicated medium-term fiscal consolidation strategy combined with enhancements in expenditure efficiency, improved public financial management and revenue enhancing measures, as well as the privatization agenda, would foster confidence in the financial markets. The government's plans to liberalize FDI policies related to strategic sectors are important steps to attract stable capital inflows. Finally, monetary policy communication, which can enhance the RBI's policy toolkit, improve predictability, and reduce uncertainties (see below) can also help.

[9] As reflected in the IMF External Sector Assessment (IMF 2021), current account deficits of about 2.5 percent of GDP should be financeable over time.

To assess the resilience of a financial system, it is useful to analyze the impacts of shocks via macro-financial linkages. *Chapter 9 takes a closer look at the corporate sector, which lies at the center of these linkages*. Here, stress testing the corporate sector can play a critical role. For example, the COVID-19 pandemic and related lockdowns and social distancing measures constituted a severe shock to corporate sector balance sheets and hence to the financial system. Such analysis can identify areas for reforms and provide insights into calibrating policies to maximize benefits while minimizing adverse implications in the future.

Following the 2008 global financial crisis and prior to the COVID-19 pandemic, India's corporate sector went through a gradual deleveraging process, with improvement in profitability. The median return on assets, for example, improved from 0.9 percent in 2009 to 2.2 percent in 2019. At the same time, the median interest coverage ratio increased to 2.8, almost reaching levels seen before the global financial crisis. The improvement was most noticeable in the manufacturing and contact-intensive trade, transport, and hospitality service sectors. By firm size, however, profits among micro firms (with sales below 50 million rupees) were persistently low throughout the period.

To assess the COVID-19 impact on the corporate sector, a series of sensitivity and stress tests (baseline, moderately adverse, and severely adverse) was conducted. The stress tests highlighted that without borrower relief measures and monetary easing, the COVID-19 shock would have led to a significant increase in the share of corporate debt issued by firms with earnings insufficient to cover their debt interest payments (that is, with an interest coverage ratio below 1). Sectors most affected include construction, manufacturing, and contact-intensive trade, transport, and hospitality services. The share of debt among micro, small, and medium enterprises with an interest coverage ratio below 1, consistent with their weaker pre-pandemic liquidity positions, would have increased more than large firms under the baseline and two adverse scenarios. Forward-looking multiyear analysis suggests that the overall impact of the COVID-19 shock would crucially depend on the speed of the economic recovery.

Borrower relief measures to firms and monetary easing provided in 2020 are found to have been effective in mitigating the liquidity impact of the COVID-19 shock. At the same time, the effects of policy measures on corporate solvency are found to be less pronounced, reflecting the focus of the implemented policy measures on supporting corporate liquidity.

Corporate stress could have a sizable impact on bank and nonbank financial companies' balance sheets, particularly on public sector banks, due to their relatively weak starting capital positions. The results show that the policy support measures taken by the government have played an important role in mitigating the impact of the pandemic on the financial sector.

Chapter 10 looks at ways to strengthen private debt resolution frameworks. Effective resolution frameworks for corporate and household debt are particularly important for the financial system to ensure efficient allocation of credit and financial sector stability. Given that investment decisions are made under uncertainty and an economy can be hit by unanticipated shocks such as the COVID-19 pandemic, it is critically important to have frameworks in

place that deal with issues of overindebtedness expeditiously to minimize costs and maximize reallocation of scarce economic resources to their most productive uses.

Such frameworks usually include procedures for debt enforcement, restructuring, and liquidation. They can be in the form of: (1) *in-court processes*, that is, through judicial supervision of creditors and debtors; (2) *out-of-court* debt restructurings that provide greater flexibility, are cheaper, and require voluntary compromises between parties; (3) e*nhanced out-of-court* procedures, which use mechanisms such as creditor committees and arbitration/mediation under ex-ante framework agreements to facilitate the restructuring; and (4) *hybrid* procedures, which provide for negotiations and majority voting to take place out of court, with a plan then submitted for judicial ratification at the final stage.

The establishment of the IBC in 2016 was a milestone aimed at modernizing India's insolvency procedures. This has been complemented with the more recent introduction of the so-called "pre-pack" insolvency process, designed to address the overindebtedness of MSMEs. Prior to these reforms, India only had an antiquated and fragmentary insolvency legislation. As a result, debt recovery was time consuming, expensive, uncertain, and prone to abuse by debtors, hindering bank lending and depriving small and medium enterprises of credit. Also, in the case of a default, creditors had incentives to evergreen loans or to enforce collateral without any assessment of the viability of the debtor's business. Bank officials hesitated to write down loans out of fear of liability under anticorruption laws. Key components of the IBC are consistent with international best practices, and it has also introduced important improvements in the institutional framework, such as the establishment of an insolvency regulator as well as professional agencies and specialized commercial courts.

A number of areas can be strengthened further. These include encouraging the use of out-of-court processes, especially for cases that require only adjustments of debt. For in-court restructurings, current timelines for corporate resolutions are ambitious and need additional resources and adjustments to be observed. Also, the corporate resolution process should include mechanisms for the participation of operational creditors and ensure that creditors are classified according to their position in the hierarchy of claims. These changes would also result in better decision making over resolution plans and more effective safeguards for dissenting minorities. In the institutional framework, a key component is staffing and capacity development, including filling vacancies at the National Company Law and the National Company Law Appellate Tribunals, increasing the number of insolvency judges, and specialized training for judges and court officials. Further reform could be beneficial for micro and small enterprises, since pre-pack processes only cover incorporated MSMEs. The implementation of insolvency procedures for natural persons should include provisions for both unincorporated MSMEs and consumer debtors.

Chapter 11 examines the impact of RBI's monetary policy communications on financial markets. Financial markets provide important information to policymakers about market expectations and are an important conduit of monetary

policy signals to the real economy. Reforms that improve the functioning of financial markets will therefore make macroeconomic management more effective. In this, monetary policy communication can play an important role in reducing market volatility, which in turn makes financial markets more attractive to savers and investors.

Forward-looking monetary policy communication has become a key element of flexible inflation-targeting regimes across advanced and emerging market economies. In India, the RBI's flexible inflation targeting framework, introduced in 2016, has been associated with improved anchoring of inflation expectations and more predictable monetary policy. A set of communication tools, including monetary policy statements and minutes, press releases, and the governor's press conference, supports the RBI's implementation of this framework, aided by policy innovations such as forward guidance on policy rates and, more recently, asset purchases.

Indeed, a review of recent innovations in monetary policy communications suggests forward guidance on the monetary policy stance likely helped moderate uncertainty and support some asset prices during the pandemic. For example, the RBI's monetary policy committee decision on October 9, 2020 and the governor's statement on forward guidance, which introduced time-based forward guidance about the duration of the accommodative stance, contributed to a decline in 10-year rates on the same day. In line with the results for other emerging markets, the relationship between monetary policy surprises and yields for government and corporate securities across all maturities is found to be positive and statistically significant in India, but it is less so for exchange rate and equity prices.

The results support an important role for monetary policy communication in guiding market expectations about the role of policies impacting market liquidity and the central bank balance sheet, as well as the likely path of policy interest rates. At the same time, as in other emerging market economies, room exists to further refine communication tools, including forward-looking communication about the economic outlook and the RBI's policy reaction function. Monetary policy communication can and should help calibrate policy normalization amid the ongoing economic recovery and elevated domestic and global inflationary pressures.

CONCLUSION

India's economy expanded rapidly for long periods since it began a reform drive back in 1991. And even though growth had already slowed prior to the COVID-19 shock and was hit hard by the pandemic and corresponding severe lockdowns, India's economy is rebounding and its growth potential remains high. To fully realize this potential, the financial sector will play a critical role. The following chapters analyze key financial sector issues in depth to highlight progress made and identify important reform areas to foster growth.

ANNEX 1.1. SELECTED ECONOMIC AND FINANCIAL SECTOR INDICATORS

ANNEX TABLE 1.1.1.

India: Selected Economic Indicators, 1980/81–2021/22

Population (2020/21): 1.38 billion
Per capita GDP (2020/21 estimate): 1927 USD
Literacy rate (2018): 74.37%
Poverty rate $1.90 a day PPP (2011): 22.5%
Main products and exports: Petroleum, chemical and primary products, business and IT services.
Key export markets: EU, USA, United Arab Emirates, China, Singapore, and Saudi Arabia.

FISCAL YEAR[1]	1980/81	1990/91	2000/01	2010/11	2018/19	2019/20	2020/21	2021/22 Est.
Output								
Real GDP growth (%)	5.3	5.5	4.0	10.3	6.5	3.7	−6.6	8.9
Prices								
Inflation, CPI-Combined (%)	11.3	11.2	3.8	10.5	3.4	4.8	6.2	5.5
General government finances								
Fiscal balance (% of GDP)			−8.3	−8.6	−6.4	−7.5	−12.8	−10.4
Public debt (% of GDP)			73.6	66.4	70.4	75.1	90.1	86.8
Money and credit								
Broad money (% change)		15.1	16.8	16.1	10.5	8.9	12.2	9.1
Domestic Credit (% change)		16.0	15.9	19.9	11.7	8.3	9.2	10.9
Credit to the private sector (% change)		13.2	15.8	21.3	12.7	6.3	5.7	10.4
3-month Treasury bill interest rate (%)			8.7	5.0	5.8	6.1	6.3	3.3
Balance of payments								
Current account (% of GDP)	−1.5	−2.9	−0.6	−2.8	−2.1	−0.9	0.9	−1.6
FDI, Net Inflow (% of GDP)	0.0	0.0	−0.7	−0.7	−1.1	−1.5	−1.6	−1.1
Reserves (months of imports)		2.8	7.3	6.3	8.2	11.1	9.0	8.1
Exchange rate								
REER (% change)		−9.7	2.4	13.9	−4.3	1.6	0.3	−1.1

Sources: Data provided by the Indian authorities; Haver Analytics; CEIC Data Company Ltd; Bloomberg L.P.; World Bank, World Development Indicators; and IMF staff estimates.

[1] Fiscal Year is April to March (e.g., 2019/20 = Apr. 2019 to Mar. 2020).

ANNEX TABLE 1.1.2.

India: Financial Soundness Indicators, 2014/15–2020/21

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
	(In percent, unless indicated otherwise)						
I. Scheduled commercial banks							
Risk-weighted capital adequacy ratio (CAR)	**12.9**	**13.3**	**13.6**	**13.8**	**14.3**	**14.7**	**16.0**
Public sector banks	11.4	11.8	12.1	11.7	12.2	12.9	13.8
Private sector banks	15.1	15.7	15.5	16.4	16.3	16.5	18.4
Foreign banks	16.8	17.1	18.7	18.6	18.5	17.7	18.5
Number of institutions not meeting 9 percent CAR	**0.0**	**1.0**	**1.0**	**1.0**	**1.0**	**3.0**	N/A
Public sector banks	0.0	0.0	1.0	1.0	0.0	1.0	N/A
Private sector banks	0.0	1.0	0.0	0.0	1.0	2.0	N/A
Foreign banks	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Net nonperforming assets (percent of outstanding net advances)[1]	**2.4**	**4.4**	**5.3**	**6.1**	**3.8**	**2.9**	**2.1**
Public sector banks	3.0	5.7	6.9	8.6	5.2	4.0	3.1
Private sector banks	0.8	1.4	2.2	2.0	1.6	1.4	1.5
Foreign banks	0.5	0.8	0.6	0.4	0.5	0.5	0.6
Gross nonperforming assets (percent of outstanding advances)	**4.3**	**7.5**	**9.6**	**11.5**	**9.3**	**8.4**	**7.5**
Public sector banks	5.0	9.3	12.5	15.6	12.6	10.8	9.5
Private sector banks	2.1	2.8	4.1	4.0	3.7	5.1	4.8
Foreign banks	3.2	4.2	4.0	3.8	3.0	2.3	2.4
Restructured loans (percent of outstanding loans)	**5.8**	**3.4**	**2.5**	**0.9**	**0.4**	. . .	**0.9**
Public sector banks	7.1	4.1	3.1	1.1	0.5	. . .	0.9
Private sector banks	2.4	1.8	1.1	0.4	0.2	. . .	0.8
Foreign banks	0.1	0.3	0.3	0.1	0.0	. . .	1.1
Return on assets[2]	**0.8**	**0.4**	**0.4**	**–0.2**	**–0.1**	**0.2**	**0.7**
Public sector banks	0.5	–0.1	–0.1	–0.9	–0.9	–0.2	0.3
Private sector banks	1.7	1.5	1.3	1.3	1.2	0.7	1.2
Foreign banks	1.9	1.5	1.6	1.3	1.6	1.4	1.5
Balance sheet structure of all scheduled banks							
Total assets (in percent of GDP)	96.5	95.3	92.3	89.2	87.3	88.6	N/A
Loan/deposit ratio	78.3	78.2	73.0	74.2	75.3	73.7	71.5
Investment in government securities/deposit ratio	25.9	26.8	26.3	27.9	26.5	27.8	29.5
II. Nonbank Financial Companies[3]							
Total assets (in percent of GDP)[4]	. . .	. . .	13.5	14.3	15.1	16.6	17.6
Risk-weighted capital adequacy ratio (CAR)	26.2	24.3	22.1	22.8	20.1	23.7	25.0
Gross nonperforming assets (percent of outstanding advances)	4.1	4.5	6.1	5.8	6.1	6.8	6.4
Net nonperforming assets (percent of outstanding net advances)[1]	2.5	2.5	4.4	3.8	3.3	3.4	2.7
Return on assets[2]	2.2	2.1	1.8	1.7	1.7	1.3	1.2

Source: Bankscope; Reserve Bank of India; and IMF staff estimates.

[1] Gross nonperforming assets less provisions.

[2] Net profit (+)/loss (–) in percent of total assets. Data for 2020/21 for NBFCs is as of September 2020.

[3] There were 9,659 NBFCs registered with the RBI as on March 31, 2019. Of these, 88 deposit-accepting and 263 systemically important non–deposit-accepting NBFCs (assets larger than INR 5 billion) are subject to prudential regulations and reporting requirements.

[4] Data for 2020/21 is as of September 2020.

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