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INDIAN PUBLIC POLICY REVIEW

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A Central Bank Digital Currency For India?

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Abstract

We review arguments for CBDC issuance in India. These include facilitating payments, enhancing financial inclusion, enabling the central bank and government to retain control of the payments system, facilitating cross-border transactions, reducing dependence on the dollar-dominated global payments system, and providing an encompassing platform for digital financial innovation. We then compare progress in India with other countries. In setting an end-2022 target date for issuance, India is in line with the other BRICS, but not with other countries with comparable levels of per capita GDP, which have been more reluctant to commit to a date. Nor is it in line with other countries with comparably independent central banks, which have been more cautious about setting a deadline. Finally, we sketch a roadmap and timeline for India's CBDC project going forward.

Keywords: Central Bank Digital Currency, Financial Inclusion, Payments, Financial Innovation

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1. Introduction

n her Budget Speech on February 1, 2022, Finance Minister Nirmala Sitharaman announced the Indian government's commitment to issuing a digital rupee. The relevant text was short and sweet, running three sentences in its entirety. "Introduction of Central Bank Digital Currency" (CBDC) will give a big boost to digital economy. Digital currency will also lead to a more efficient and cheaper currency management system. It is, therefore, proposed to introduce Digital Rupee, using blockchain and other technologies, to be issued by the Reserve Bank of India starting in 2022-23."

With this proposal, India joined a long list of countries actively contemplating issuance of a CBDC.¹But in setting a firm deadline for such issuance, the government is also joining a more select subset. As we will see, a majority of countries with which India might be compared have not set a target date.

Moreover, the minister's statement raised as many questions as it answered. How will issuance and circulation of the digital rupee be organized? What is the content of the passage reading "blockchain and other technologies?" Will the currency run on a public blockchain, where validation is decentralized; a permissioned or private blockchain, where only authorized nodes can validate transactions; or no blockchain, with encryption and security provided in other ways? Will the Reserve Bank operate a wholesale CBDC, in which the central bank provides digital currency to authorized banks which then provide it to their customers, or a wholesale CBDC that is used strictly for interbank settlements?² Will a retail CBDC eventually follow?³

In what ways will a CBDC boost the digital economy? Isn't there a danger, instead, that a centralbank-backed unit will crowd out private initiatives designed to facilitate more efficient payments? How does issuance of a CBDC square with the government's parallel efforts to clamp down on cryptocurrency markets, on the grounds that these raise macroeconomic and financial stability concerns as well as scope for money laundering and tax evasion? In what sense would a CBDC lead to a more efficient and cheaper currency management system? Does this simply refer to eliminating, or at least limiting, the need to print and manage the supply of physical bank notes, or to something more?

No less an authority than the Reserve Bank of India has expressed similar concerns. Earlier this year, RBI Governor Shaktikanta Das pointed to risks related to cybersecurity and counterfeiting. No doubt, a CBDC would offer a rich target to hackers and cyber terrorists. The Reserve Bank's report on "Trend and Progress of Banking in India," issued at the end of 2021, voiced additional concerns -- namely that issuance of a CBDC might have unintended (and unspecified) consequences for the conduct of monetary policy, financial stability, and operation of the banking system.⁴ The report flagged the nagging question of whether the RBI should issue a retail or wholesale CBDC, but did not provide further clarity on the answer.

These are among the issues taken up in this paper. In the second section, we review the arguments that have been advanced for CBDC issuance. These include facilitating payments, enhancing financial inclusion, enabling the central bank and government to retain control of the payments system in the presence of incursions from stablecoins and other digital payments rails, facilitating cross-border payments, reducing dependence on the dollar-dominated global payments system, and providing an encompassing platform for digital financial innovation. In addition, it has been argued that first movers in issuing a CBDC will be able to set global standards for CBDC design, and to tailor those standards to their national advantage and to the advantage of the domestic high-tech sector.

The paper provides a somewhat skeptical perspective on these arguments. We argue that many of these arguments for CBDCs have been advanced uncritically. Their proponents fail to acknowledge that some of these goals can be advanced at lower cost and at less risk through alternative means. This point is true generally; it is especially true of India, with its already-existing universal payments system and ongoing financial inclusion efforts. Some of the other arguments in favor of CBDCs are logically or practically flawed. Very few take into account the real downside risks associated with CBDC development, including hazards to institutional actors, end-users of retail CBDCs, and the reputation of the central bank.

The third section then compares the state of debate and progress in India with obvious comparator countries. We show that, in setting an end-2022 target date for completion of its pilot project and for issuance, India is in line with the other BRICS countries, but not with other countries with comparable levels of per capita GDP (which have been more reluctant to commit to a date) or with other countries with comparably independent central banks (which have been cautious about setting a deadline, especially one in the near future).

The final section offers some tentative conclusions and a roadmap for India going forward.

2. The Cases For and Against

The first and perhaps most obvious argument for a CBDC is to facilitate payments. Consumers use a variety of different means of payment: cash and coin for hand-to-hand transactions, debit and credit cards for online and point-of-sale transactions, and bank debits and deposits for paying bills and receiving salaries. A CBDC could conceivably substitute for these other means.

A CBDC would be safe and easy to use for transactions at a distance, unlike cash (no small consideration in an age of pandemics). It would be universally accepted for transactions within the country, in contrast to credit and debit cards, which require the merchant to have an electronic connection to the bank or other issuer. In the case of a retail CBDC, the balance would be transferred between two agents' electronic wallets, or between their individual accounts at the central bank, instantaneously and with finality.⁵ In the case of a wholesale CBDC, the balance would be transferred between their CBDC accounts at their respective commercial banks, which would run on a closed circuit or blockchain.

The transaction would cost less than payment by credit or debit card, the argument goes, because the bank, when issuing and transferring CBDC balances to consumers, would not also be providing and charging for other services, such a fraud protection, overdraft protection, and a credit line that generally come packaged together with such cards. It would cost less than a bank deposit or debit because the transaction would not go through the interbank payment system, which is costly to operate; rather, it would go through a dedicated circuit where transfers were limited to fully-funded, final payments. In the case of India, however, these savings of convenience and cost may be subject to exaggeration. Electronic payments are already ubiquitous in India. Modalities include prepaid payment instruments (prepaid smart cards, etc.), mobile banking, and use of credit and debit cards at point of sale. Figure 1 shows that the value and volume of such electronic payments has been growing strongly. To be sure, that growth is somewhat less impressive when scaled by GDP or by a measure of the size of the financial system, such as M3 (see Figure 2).



Source: Payment System Indicators, RBI database.

Note: Total value of electronic payments have increased from around INR 6500 billion in January 2014 to more than INR 23,000 billion in December 2021. Total electronic payments include Prepaid Payment Instruments (PPI), Mobile banking, NACH, IMPS, CTS, and cards at PoS.

- PPIs facilitate transactions or fund transfers against the value stored in the payment instrument like smart cards, such as the one authorized by Delhi Metro Rail Corporation Limited.
- Mobile banking is service provided by banks that allows customers to conduct financial transactions remotely using a smartphone device.
- National Automated Clearing House (NACH) helps banks, corporate houses, governments and other financial institutions to make bulk payments.
- Immediate Payment Service (IMPS) is an electronic inter-bank fund transfer system using mobile phones as the medium.
- The Cheque Truncation System (CTS) allows clearance of cheques between banks using an online image based clearance method.
- Cards at Point of Sale (PoS) is the sum of credit and debit cards used for making transactions at the corresponding location of sale.



Figure 2: Electronic Payments in India as Shares of M3 and GDP

Source: Payment System Indicators, RBI database and National Accounts Statistics.

Moreover, India already possesses a relatively efficient, encompassing low-cost electronic payments infrastructure, the Unified Payments Interface (UPI). UPI is a real-time payments system developed and operated by the National Payments Corporation of India (NPCI), a nonprofit operating under the umbrella of the Reserve Bank and the Indian Banks' Association. UPI instantly transfers funds between retail bank accounts on a mobile platform (e.g. a smartphone) at negligible cost. UPI runs on both Android (version 4.2.2 and above) and iOS (version 8.1 and above).

Multiple banks and third-party e-money companies have introduced UPI-enabled mobile payment apps, allowing users to send and receive money between UPI-linked bank accounts. It can also interface with Pre-Paid Instruments (PPIs), smart cards, magnetic stripe cards and the like on which balances can be pre-loaded. As of early 2022, some 300 banks participated in the system. In its history to date, UPI has hosted some 70 billion transactions, some as small as one rupee, making it the world's largest real-time payment system by transactions. Further, NPCI is testing a voice-based version for smartphone users that will work without an internet connection (using over-the-air programming).⁶

A retail CBDC would effectively extend these services to the unbanked. CBDC balances could be loaded to the digital wallet on their smartphones or could conceivably loaded onto a smartcard (the CBDC equivalent of a bank credit card), and transferred to the wallet or smartcard of another individual or merchant without the two parties having to possess bank accounts. But it would not obviously add value for individuals already possessing a bank account, given the ubiquity and very low cost of UPI. A wholesale CBDC, which officials have suggested will be the case at least initially, will not be available to the unbanked.

This brings us to a second argument for CBDC issuance, on grounds of financial inclusion. Governments seeking to make income-support payments to low-income individuals during the pandemic were sometimes stymied by the absence of a bank account to which to transfer the payment. But if every individual had an electronic wallet into which CBDC could be transferred, such financial transfers would become easier to undertake. More generally, a CBDC wallet available to all, regardless of employment and credit history, would make it easier for the un- and under-banked to complete financial transactions. This is why CBDCs have particular appeal to developing countries and emerging markets, where financial inclusion is a first-order issue.

The problem of inadequate financial inclusion, however, can also be addressed in ways that don't involve a CBDC. Since 2010, the Reserve Bank has required banks to formulate and implement policies with the goal of enhancing financial inclusion. These may entail establishing traditional brick and mortar bank branches in rural areas or providing banking services through nonbank partners and agents. Table 1 shows how the number of commercial bank branches (per 100,000 adults) has been growing. This number still lags behind some other comparator countries (Brazil, Morocco, Russia) but exceeds others (notably China).

The number of ATMs has also been growing, although this number per 100,000 adults still lags far behind its analog in comparator countries (Figure 3). The government has also launched a mobile app *Jan Dhan Darshak* (JDD) to enable smartphone users to locate bank branches, ATM, post office banking facilities etc. Data from this app show that the number of villages not having such a banking touch point within five kilometers had declined to low levels by 2021 (see Figure 4).

	2010	2015	2020	
Ukraine	2.3	0.6	0.4	
Ghana	5.3	7.0	8.3	
Nigeria	6.6	5.0	4.8	
China	7.3	8.5	8.8	
Philippines	7.6	8.8	9.2	
Singapore	9.8	9.0	7.0	
South Africa	9.8	10.4	9.2	
India	10.0	13.5	14.7	
Thailand	11.0	12.5	10.6	
Norway	11.0	7.7	5.5	
Turkey	17.9	19.1	15.4	
Brazil	18.7	20.9	17.9	
Morocco	20.8	24.6	24.2	
Mauritius	21.3	21.7	16.4	
Sweden	22.5	19.3	13.8	
Russia	35.1	32.9	24.6	

Table 1: Commercial bank branches (per 100,000 adults)

Source: World Development Indicators.

Note: Due to non-availability of data for 2020, data for 2019 have been taken for Ghana, Nigeria, and Mauritius and 2017 for Norway.





Figure 3: ATMs per 100,000 adults

Source: Payments and financial market infrastructures, Red book statistics for CPMI (Committee on Payments and Market Infrastructures) countries, Bank for International settlements (BIS). Population data is from WDI, World Bank

Financial inclusion plans have also extended to the creation of Basic Savings Bank Deposit Accounts (BSBDAs), no-frills accounts that do not require the maintenance of a minimum balance. Table 2 shows that these have been growing strongly. The holder obtains an ATM/debit card and passbook services free of charge. The bank then allows a certain number of deposits and withdrawals per month free of cost.⁷ Banks generally pay the same rate of interest as on regular accounts.

In addition, the *Pradhan Mantri Jan Dhan Yojana* (the Prime Minister's People's Wealth Scheme), established in 2014, tasks public sector banks (including the State Bank of India, the Reserve Bank, Canara Bank, and Bank of Baroda, along with regional rural banks owned and operated by the government) with offering zero balance, low-cost bank accounts to under-banked rural residents. As of 2021, more than 400 million such accounts had been opened, although some 15% of these were inactive, and some were opened as second accounts by individuals already possessing a bank account.⁸ (For details see Table 3 and Figure 4.) Usage of many of these accounts was sparing initially, though the frequency of transactions appears to have been rising with time, as account holders gain experience and familiarity with banking services.

	March 2010	December- 2019	December 2020
Banking outlets in villages- Branches	33378	54481	55073
Banking outlets in large villages via Business			
Correspondents	8390	128980	851272
Banking outlets in small villages via Business			
Correspondents	25784	383864	385537
Total Banking Outlets in villages via Business			
Correspondents	34174	512844	1236809
Basic Saving Bank Deposit Accounts - Total (in			
Lakh)	735	5967	6492
Basic Saving Bank Deposit Accounts - Total			
(Amount in INR crore)	5500	152826	203061
Kisan Credit Cards - No. of cards (in Lakh)	240	479	490
Kisan Credit Cards - Total (Amount in INR			
crore)	124000	709377	679136
General Credit Card - No. of cards (in Lakh)	10	200	199
General Credit Card - Total (Amount in INR			
crore)	3500	184918	173968
Information and Communication Technology			
-A/C-BC-No. of Transactions (in Lakh)#	270	22500	35183
Information and Communication Technology			
-A/C-BC-Total Transactions (Amount in			
crore)#	700	606589	828795
crore) General Credit Card - No. of cards (in Lakh) General Credit Card - Total (Amount in INR crore) Information and Communication Technology -A/C-BC-No. of Transactions (in Lakh)# Information and Communication Technology -A/C-BC-Total Transactions (Amount in crore)#	124000 10 3500 270 700 <i>* RBL</i> Appuel	709377 200 184918 22500 606589 Report (May 27, 20	679136 199 173968 35183 828795

Table 2: Banking Statistics for India

Source: "Ch. 4: Credit Delivery and Financial Inclusion," *RBI Annual Report* (May 27, 2021). **Notes:** # denotes transaction during year.

- Large villages refers to villages where population is greater than 2000 and small villages refers to villages where population is less than 2000.
- BC refers to Business Correspondents, who are retail agents engaged by banks for providing banking services at locations other than a bank branch/ATM.

	March 2015	March 2016	March 2017	March 2018	March 2019	March 2020	March 2021
No. of PMJDY accounts (in Crore)	14.7	21.4	28.2	31.4	35.3	38.3	42.2
Deposit in PMJDY accounts (in INR Crore)	15670	35672	62972	78494	96107	118434	145551
Average Deposit per PMJDY account (in INR)	1065	1665	2235	2497	2725	3090	3449
Number of RuPay debit cards issued to PMJDY account-holders (in Crore)	13.1	17.8	22.0	23.7	27.9	29.3	30.9
Operative PMJDY Accounts			23.2	26.3	30.2	34.9	36.9

Table 3. Progress of Pradhan Mantri Jan Dhan Yojana (PMJDY)

Source: PMJDY Progress Report, Department of Financial Services, Ministry of Finance.

Even though "only" some 20% of India's population is unbanked, half of all Indians do not own a smartphone capable of downloading a central bank app and digital wallet and transacting over a 3G network – the minimal conditions for making internet-enabled payments using a CBDC.⁹ (See Figure 5.) The Reserve Bank of India has recognized this constraint; in March of 2020 it launched an initiative to make UPI available not just to smartphone users but also to feature phone users, feature phones having limited processing and storage capacity and being unable to access the internet (RBI 2022). One can imagine that capacity to transact using CBDC through feature phones may follow.

Figure 4: Number of Pradhan Mantri Jan Dhan Yojana (PMJDY) Accounts



Deposits Under PMJDY













Adequate 3G coverage may also be lacking in some of the relevant (relatively remote) areas. The same problem extends to internet connectivity more generally (see Table 4). Some projects have focused on addressing these issues in CBDC design – as with exploring offline CBDC payments functionality, for example.¹⁰ But any improvement in financial inclusion arising from a CBDC would require concurrent efforts to address the ancillary causes of exclusion. For the moment, at least, it would appear that there are more direct ways of effectively fostering financial inclusion.

A third rationale sometimes heard for CBDC issuance is to enable the central bank and the government to retain control of the payments system in the face of stablecoins and other private payment rails. This is a way of understanding how Facebook's announcement of its prospective stablecoin, initially dubbed Libra, galvanized so many central banks to begin thinking about a CBDC.11

Ensuring the stability and soundness of this essential public utility is a key aspect of the central bank's mandate. The fear is that, if payments migrate away from UPI and toward a private-label stablecoin, the central bank will then have limited insight into the operation of the payments system and limited ability to ensure its integrity. A related danger is that payments will migrate to a single large private provider, with market power over both payments and related services. Another related argument is that the central bank's oversight of the payments system provides it with valuable real-time information on the state of the economy, and that there would be costs of losing this were payments to migrate to a private system.

If the concern is the concentration of payments in a single or small set of private hands, then the obvious solution is to strengthen regulation of those private providers. This is the approach taken, for better or worse, by the Chinese authorities when cracking down on Alipay and WeChat Pay. These providers were required to share more information with the authorities and to build firewalls between their payments data and other operations. Similarly, and less aggressively, other countries have been moving quickly to regulate the private digital currency market in order to ensure safe operations, protect consumers from harm, and to mitigate systemic risk to the financial system.

None of these efforts require the issuance of a CBDC. Instead, they can be informed by decades of financial markets regulation precedent. In the case of India, similarly, opinion and policy seem to have shifted away, from earlier discussions of possibly banning crypto assets that may be used for digital payments, toward adopting appropriate regulation.

In particular, if private nonbanks take on more payments responsibilities of the sort traditionally executed by banks, then they can be regulated like banks. Stablecoins are beginning to be used for payments, mainly in the cryptosphere, but possibly – in the not-too-distant future - more widely. Governments are responding, appropriately, by asking whether stablecoin issuers should be required to take out bank charters and otherwise be regulated like banks. This would seem to be a more appropriate response to concerns about losing control of the payments system than issuing a CBDC.

As for the real time information about the economy, there exist myriad other sources of real-time information: financial market data, cellphone location data, web traffic data, etc.

Yet another argument is that a CBDC could facilitate cross-border transactions, making life easier for Indian exporters and importers. A digital rupee that could be seamlessly exchanged for, say a digital dollar or a digital euro would eliminate the need for an Indian firm – seeking, for example, to import machinery from the United States – to have to instruct its bank to contact a correspondent bank in the United States via SWIFT, transfer funds there, and then instruct the correspondent to credit the bank where the exporter maintains an account. Both time and expense would be saved, particularly on small purchases and transfers, where the share of the principal dissipated in bank fees can be considerable.

This argument overlooks two points. First, there already exist alternative nonbank mechanisms for making small purchases and sales abroad. The most ubiquitous of these is the credit card. In addition, Paypal, while no longer providing domestic payments services in India (due, presumably, to the ubiquity and low cost of UPI), continues to process international sales for Indian merchants (in 2020, \$1.4 US billion worth of sales by some 360,000 merchants). Google Pay can be used both for domestic payments and to send money from the United States to India, Google having partnered with Western Union and Wise (formerly TransferWise).12

It may be that officials are uncomfortable with the use of international (as opposed to homegrown) platforms for these transfers. This may be a matter of national pride – a noneconomic argument that, as economists, we are not qualified to comment on here. Or it may be regarded as a national security matter: recall how PayPal and Google Pay suspended their operations in Russia in March in response to that country's war on Ukraine.

Officials may also be concerned about data privacy and the uses to which these commercial payments platforms put their customers' transactions data. In principle, however, this issue can be addressed through regulation and legal action, rather than by creating a central-bank-based alternative. Thus, in 2020, the Delhi High Court issued a notice in response to a complaint that Google Pay was illegally sharing sensitive personal user data. In 2021, in response, Google updated its policy to allow users to delete sensitive data from the company's internal network.

Second, it is not clear that CBDCs can in fact be used to seamlessly complete cross-border transactions. Cross-border transfers of digital rupees will be subject to all the same capital account restrictions as existing rupee-denominated transfers, the only difference being that the RBI will be directly responsible for monitoring and enforcing compliance in the case of a retail CBDC (commercial banks and other authorized intermediaries remaining responsible in the case of a wholesale CBDC).

If that U.S. exporter is able and willing to accept digital rupees in payment (itself no certain proposition), he or she will then face the challenge and cost of converting these into (nondigital or perhaps digital) dollars. The Federal Reserve System in conjunction with the Reserve Bank of India could conceivably provide this service. The two central banks could establish a special platform (or "corridor") where authorized dealers (designated banks from the two countries) can convert the national CBDC into a depository receipt, at which point the CBDC is burned (extinguished) and then convert that depository receipt into the other CBDC, at which point additional CBDC is minted. The Bank of Thailand and Hong Kong Monetary Authority have been jointly exploring the possible operation of such a corridor. Alternatively, two and more national CBDCs could circulate on the same blockchain, allowing them to be automatically exchanged for one another at a rate determined by supply and demand.

The technical obstacles to CBDC interoperability are surmountable, which is why various central banks and the Bank for International Settlements' Innovation Hubs have been exploring them. The mCBDC is one key example of international cooperation that seeks to overcome this technical hurdle

in concurrent development with state-level CBDC projects. On the other hand, the governance obstacles to this arrangement are formidable:

- The participating central banks would have to agree on an architecture for their corridor.
- They would have to jointly govern its operation.
- They would have to license and regulate dealers holding inventories of currencies and depository receipts, to ensure that the exchange rate inside the corridor doesn't diverge significantly from that outside.
- They would have to agree on who provides emergency liquidity, against what collateral, in the event of a major order imbalance.

None of these traditional governance issues are inherently solved by the technical features of a CBDC, and few gains from CBDC cross-border payments can be realized without this type of governance coordination. In a world of 180 currencies, moreover, arrangements of this type would require scores of bilateral agreements. We have already seen the resulting proliferation of agreements in the fast-payments domain (fast payments systems like UPI and operating through banks being entirely different from CBDCs, as noted above).

For example, Singapore negotiated one such agreement with India and another with Malaysia in 2021; the details of the link will have to differ in the two cases, since the architectures of the Malaysian and Indian fast-payments systems differ. The same would presumably be true of CBDC linkages. And corridors of more than two countries would require rules and governance arrangements more elaborate than even those of the World Trade Organization and the International Monetary Fund.

Relatedly, one sometimes hears suggestions that a CBDC is desirable for geopolitical reasons. Having a CBDC, it is asserted, would free the issuing country from "the tyranny of SWIFT" – in other words, from the risk that its banks would be barred from using the Society for Worldwide Interbank Financial Transactions, the secure messaging system through which banks send transfer instructions to their branches and correspondents in other countries.

Here, it is important to be clear what SWIFT is and is not. SWIFT is a secure messaging system through which payments instructions are transmitted; it is not itself a set of payments rails. As payments rails, banks use Fedwire (in the U.S.), CHAPS (in the UK), or an analogous system in another country. Issuing a CBDC would not create an alternative to these systems.

Thus, for nearly a decade China has been developing its own set of cross-border payments rails, its so-called Cross-Border Interbank Payments System (CIPS), through which renminbi payments can be transferred between domestic and foreign banks. But CIPS uses SWIFT for sending instructions between participating banks. All this is separate from the e-CNY, and it is not obvious that the operation of CIPS would be significantly enhanced by cross-border use of the e-CNY. Were such enhancements in the cards, we would see SWIFT changing its operations in response to the rollout of the e-CNY. We do not. The argument linking CBDC issuance to "the tyranny of SWIFT" is a logical non sequitur.

Yet another argument for a CBDC is to provide an encompassing platform for the design and dissemination of smart contracts and other decentralized finance (DeFi) applications. Smart contracts are loan (and related) financial instruments that do not rely on intermediation and monitoring by a bank or equivalent financial institution. They can be built on a public blockchain, whose nodes then

verify the transaction, which can be executed using the native coin circulating on that blockchain (as well as other tokens defined in that chain).

Currently, the majority of DeFi transactions run on Ethereum's public blockchain, where Ether is the native coin. The smart contract terms and transactions are actually denominated in U.S. dollardenominated stablecoins, but Ether is required to execute the payment and pay the transactions fees on the network. Since Ether is a "plain vanilla cryptocurrency" whose value against central bank issued currency can (and does) fluctuate widely, this introduces an element of cost uncertainty that reduces the appeal of DeFi transactions.¹³ Further, Ethereum is not the only public blockchain on which smart contracts are built; the resulting fragmentation arguably limits efficiency gains.

A CBDC, in contrast, would be stable in terms of central bank money (since it is central bank money); costs of transacting would be predictable; and it would be universally accessible. A CBDC-based smart-contract platform, it is argued, would be a hothouse for financial innovation.

The counterarguments are of three types.

- First, if the problem is that plain-vanilla cryptocurrencies like Ethereum are volatile, then the same services could be provided by a vigorously regulated private-label stablecoin. This would overcome a serious market obstacle to CBDC smart contracts, namely government competition in private financial services markets, which can produce its own set of inefficiencies.
- Second, central banks may have reasons to avoid placing their CBDCs on a public blockchain on the grounds that this is vulnerable to hacking and other security problems. They may prefer a private blockchain where only the central bank itself can verify and finalize transactions, or they may prefer to use another non-blockchain-based form of encryption. But if the CBDC runs on a private blockchain with centralized verification, then it cannot provide a platform of smart contracts and other forms of decentralized finance.
- Third, there are still reasons for doubting that smart contract-based decentralized finance is the future. There have been a number of prominent disasters with smart contracts running on Ethereum's blockchain due to programming errors. Smart contracts have been mechanisms for siphoning off the funds of naïve investors by hackers. In most of these instances, programming problems were subtle and remained hidden despite security audits and code reviews (Allen et al. 2020). One wonders whether digital auditors working for central banks can do better.

This third reason for doubt is compounded by the almost entirely undeveloped technical requirements for a programmable CBDC, premised explicitly on the degree to which these instruments can and should be programmable. Smart contracts stand as a high-tier level of programmable CBDC comparable to Ethereum, however, many other lower tiers of programmability – such as simple API access and cryptographic keys, for example – also fall under the umbrella of programmable money. In this respect, it is not only critical for central banks to investigate precisely why, and to what end, they are creating a programmable CBDC – it is also crucial to conduct the necessary technical research and feasibility probes to identify areas of technical vulnerability that arise from any given model.

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Relatedly, there are questions about whether DeFi can replace relationship banking. Soft information of the sort that bank loan officers assemble from face-to-face interaction with borrowers may not be replicable in the digital sphere. In addition, on-chain systems like DeFi have available only borrowers' on-chain financial records.¹⁴ Holdings of cryptocurrencies appear to be concentrated in practice, giving grounds for worrying about, *inter alia*, market manipulation.

The cryptocurrencies around which DeFi transactions are organized are volatile. This makes borrowing expensive; borrowers have to overcollateralize (offer collateral worth more than what they borrow) in order to protect against sharp falls in the value of that collateral. All these are reasons to question whether DeFi will transform finance as we know it.

Yet another argument for moving quickly to issue a CBDC is the advantages of being first. Actually, it is not clear why being first should be especially advantageous or, conversely, why it should be costly to wait until there exists a proven technology. One argument is that the central banks that move first will be able to define global standards for CBDCs. But it is not clear that other countries will be forced to adopt the exact same technology standards as the first movers, any more than central banks all have to adopt the same standards and technologies as the first bank note issuers. (Bank notes continue to differ in, for instance, their security and anti-counterfeiting technologies – special papers, watermarks, luminescent inks, embedded holograms, etc.).

While concerns with interoperability may provide an incentive to converge on an early standard, we believe hopes for interoperability are overblown. It is said that countries moving first will have a leg up on providing technical assistance to later movers, thereby capturing market share for their high-tech sector. In fact, there is no reason why the technology should be developed in the same country that utilizes it for its CBDC. The Bank of Canada and Bank of England, to cite two examples, are partnering with MIT, not with Canadian or British universities, in developing its CBDC-related technology. That the Federal Reserve is moving slowly, relative to other central banks, in preparing to issue a CBDC, has not hampered the competitiveness of MIT as a technology supplier.

Notably, there have also been clear issues in the early CBDC projects that have recently gone live, especially complications arising in the rollout of Bahama's CBDC, the Sand Dollar, and Nigeria's, the e-Naira. The capacity for achieving domestic policy priorities in both cases was hampered by a lack of concurrent development in underlying infrastructure, providing important lessons on the whole-of-economy considerations relevant to these projects.

Finally, there are a wide variety of downside risks associated with rapid CBDC development that specifically implicate end-users. Key among these is the technical design and monetary nature of a CBDC. In this respect, current projects vary between two basic models: bearer instruments and account-based access. Whereas bearer instruments introduce the same privileges and constraints as physical cash, account access frameworks more closely resemble retail banking accounts with distributed liabilities. Vulnerable populations – even in economies rife with digital payments – often rely on physical cash for its bearer instrument characteristics, and India's 2016 experience with the initial rollout of demonetization demonstrates the pitfalls of rapid changes to cash-based segments of the economy.

In this respect, rapid CBDC development in an effort to be the first mover may harm vulnerable end-users of physical cash in two specific ways. First, if the CBDC competes too much with physical cash – for example, mandating acceptance among merchants in ways that limit cash transactions – then this could disenfranchise vulnerable end-users from key goods and services. Second, if the CBDC is implemented through an account access framework, its capacity to genuinely expand financial inclusion – a stated goal of several projects, including India's – would be severely limited, as described above, without a parallel effort to target other causes of financial exclusion, including infrastructural issues.

All of which is to say: the case for an Indian CBDC on a fast-track schedule may be less compelling than it first appears. At the very least, CBDC development requires significantly greater trade-offs than current accounts often discuss, and these must be carefully considered in India's potential project.

3. The State of Play

In this section we consider the state of CBDC development in countries which may reasonably be compared to India. We take four approaches to forming the comparison group, which we refer to as economic, institutional, categorical, and technological. We consider:

- countries with similar GDP per capita in purchasing power parity terms (the economic comparison);
- countries where the central bank has a similar degree of independence (the institutional comparison);
- other members of the so-called BRICS, large developing and middle-income countries with which India is frequently grouped (the categorical comparison); and
- countries comparably ranked to India on WIPO's technology competitiveness index (the technological comparison).

In each case we limit the sample to the four closest comparators. Table 5 shows the three collections of countries that are closest to India along each of those measures¹⁵. Different readers may prefer different comparison groups; we focus on all four.

Table 6 next lists eight widely stated policy and economic motivations and rationales for CBDC projects initiated by central banks around the world. (All data are based on public announcements between January 2013 and December 2021.)

- The Indian government and the Reserve Bank have recently released a report endorsing a CBDC as "a safe, robust and convenient alternative to physical cash," with the intent of focusing on the policy goals in their technical design of a basic CBDC model (Reserve Bank of India, 2021; Singh, 2021).
- In a July 2021 speech, Deputy Governor Sankar detailed the associated motivations and policy priorities, including fostering financial inclusion (through reduced payment-associated costs), responding to the declining use of cash (especially physical cash), the desire to enhance the efficiency of banking (particularly the reliability of these systems), facilitating international payments, and heightening fiscal transparency (Sankar, 2021).

Some of these motivations are shared nearly across the board, including improvements in financial inclusion, domestic banking efficiency, and cross-border international payments.

Country Name	GDP per capita PPP(most recent World Bank estimate)	Central Bank Independence (Garriga 2016)	BRICS Member (Binary)	WIPO Rank: Technology Competitiveness
India	6,503.9	0.264	Yes	48
Philippines	8,389.8	0.579	No	50
Morocco	7,369.5	0.328	No	75
Ghana	5,744.4	0.403	No	108
Nigeria	5,186.4	0.443	No	117
Sweden	55,037.7	0.257	No	2
Taiwan	[not listed]	0.273	No	[not listed]
Norway	62,644.8	0.242	No	20
Singapore	98,520.0	0.211	No	8
Brazil	14,835.4	0.385	Yes	62
Russia	29,812.2	[not listed]	Yes	47
China	17,210.8	0.384	Yes	14
South Africa	13,360.6	0.321	Yes	60
Turkey	27,235.43	0.633	No	51
Ukraine	13,054.76	0.623	No	45
Mauritius	20,530.51	0.201	No	52
Thailand	18,232.80	0.126	No	44

Table 5: Countries with Active CBDC Projects: Comparison by Indicators

Note: Cells highlighted in green in this table indicate that the country in a row was selected for comparison against India due to its similarity along the indicator in that column, among countriesactively and publicly pursuing central bank digital currencies in my dataset. These countries remain color-coded in reference to these groups in each of the tables below.

- Some counterparts share other motivations with India, such as Brazil, Sweden, Norway, and Ukraine in declining cash usage;
- Sweden and China in pursuing greater fiscal transparency in domestic operations;
- Some countries exhibit motivations not shared publicly by India, such as pursuing CBDC primarily as a precautionary project in case other countries move quickly (including Norway and Singapore).

Some countries appear to have very specific, focused motivations (Russia's wish to circumvent targeted financial sanctions, Nigeria's concern with cost and ease of cross-border payments), the Indian governments motives are more eclectic (some would say "less focused").

Country Name	Financial Inclusion	Declining Cash Use	Banking Efficiency	Internatio nal Payments	Sanctions	Precaution ary	Fiscal Transpare ncy	Financial Stability
India	Y	Y	Y	Y	-	-	Y	-
Philippines	Y	-	Y	-	-	-	-	-
`Morocco	-	-	-	-	-	-	-	-
Ghana	-	-	-	-	-	-	-	-
Nigeria	-	-	-	Y	-	-	-	-
Sweden	Y	Y	Y	-	-	-	Y	-
Taiwan	-	-	Y	-	-	-	-	-
Norway	-	Y	-	-	-	Y	-	-
Singapore	-	-	Y	Y	-	Y	-	-
Brazil	Y	Y	Y	Y	-	-	-	-
Russia	Y	-	Y	Y	Y	-	-	-
China	-	-	Y	-	-	-	Y	-
South Africa	Y	-	Y	Y	-	-	-	-
Turkey	Y	-	Y	-	-	-	-	Y
Ukraine	Y	Y	-	-	-	-	-	
Mauritius	-	-	-	-	-	-	-	-
Thailand	Y	-	Y			-		Y

Table 6: Publicly Stated Policy and Economic Motivations for CBDC Projects among Case Countries

Note: These values are coded from public statements made by central bank and other relevant government officials regarding the motivations for their respective CBDC projects. The codes were determined from review of data through mid-2021, first through an inductive coding exercised and formalized through cross-assessment on all observations in the data to ensure full coverage. No countries in the data from which this report is compiled detailed motivations that were not captured by any of these eight themes.

Table 7 then summarizes the initiation of CBDC development in each country, the latest publicly announced state of development, and target dates for next steps, if any. India's initial expression of interest came relatively late, in 2019; only Nigeria and the Philippines were later. In announcing the intent to launch a pilot project in December 2021, India is more or less in line, temporally, with the other countries, which made similar announcements slightly earlier or concurrently.

Country Name	Initially Announced	Current Known State	Target Date for Next
	State of Development	of Development	Developments
India	Interest	Intended Pilot	Pilot Finished
	(July, 2019)	(December, 2021)	(2022)
Philippines	Initial Research	Design Research	No Public
	(July, 2020)	(May 2021)	Target Dates
Morocco	Initial Discussions	Initial Research	No Public
	(November, 2017)	(February 2021)	Target Dates
Ghana	Feasibility Research	Design Research	No Public
	(November, 2018)	(October, 2021)	Target Dates
Nigeria	Announce Pilot	Issue CBDC Pilot	No Public
	(June, 2021)	(October, 2021)	Target Dates
Sweden	Initial Discussions	Announce Pilot	Issue CBDC Pilot
	(November, 2016)	(May, 2021)	(2026)
Taiwan	Announce Interest	Design Research	No Public
	(March, 2018)	(June, 2020)	Target Dates
Norway	Feasibility Research	Application Research	No Public
	(May, 2018)	(April, 2021)	Target Dates
Singapore	Initial Research	Design Research	No Public
	(November, 2016)	(November, 2021)	Target Dates
Brazil	Initial Research	Announce Pilot	Issue CBDC Pilot
	(December, 2018)	(November, 2021)	(2022/2023)
Russia	Initial Discussions	Announce Pilot	Issue, Expand Pilot
	(October, 2017)	(June 2021)	(2022)
China	Initial Research	Expanded Pilot	Expand Pilot Further
	(January, 2014)	(December, 2021)	(2022)
South Africa	Feasibility Research	Announce Pilot	Issue CBDC Pilot
	(June, 2016)	(September, 2021)	(2022)
Turkey	Research Feasibility	Announce Pilot	No Public
	(March, 2018)	(August, 2021)	Target Dates
Ukraine	Research Feasibility	Design Research	Issue CBDC
	(March, 2016)	(August, 2021)	(2025)
Mauritius	Initial Discussions	Announce Pilot	No Public
	(March, 2019)	(May, 2021)	Target Dates
Thailand	Research Feasibility	Announce Pilot	No Public
	(August, 2018)	(October, 2021)	Target Dates

Table 7: Timing of Publicly Signaled Project Development among Case Countries

Note: Initial and current states of development are coded at the general level of: (i) interest, (ii) research, (iii) development, (iv) pilot, (v) issuance, and (vi) terminating CBDC projects. The states of development listed in the table above are sub-components of each major progress code, which typically involve specificity regarding the type of research and development, or stage of pilot.

In setting an end-2022 target date for completion of that pilot project and issuance, India is in line with the other BRICS, interestingly, but not with other countries with comparable levels of per capita GDP (which have been more reluctant to commit to a date) or with other countries with comparably independent central banks (which have been cautious about setting a deadline, especially one in the near future). Notably, among its comparably competitive peers in the index of global technological capabilities, India's announcements trail behind others which began in 2018-19, and most of which are in the pilot stage.

Table 8 reports publicly stated preferences for CBDC design based on the BIS typology and Auer and Bohme (2020). This typology distinguishes four main technical features of all retail CBDCs and the distinct options available within each of them.

- Architecture refers to the actor(s) liable for claims made in CBDC; this could take the form of direct accounts with central banks, more traditional (indirect) architectures intermediated by private banks, or a hybrid model.
- Infrastructure refers to the nature of the technical ledger system that manages issuance and supply; this could take the form of distributed ledger technology, more conventional centralized ledgers, or a hybrid approach.
- Access refers to the logic of how CBDC ownership and custody is recognized and validated; the BIS organizes this as either an account (identity-based), token (bearer instrument), or hybrid of the two.
- Interlinkage indicates whether a CBDC is designed to have cross-border interoperability; this is simply a binary.

In the aforementioned report, the Reserve Bank of India appears to suggest that a hybrid architecture -- in which the CBDC is a claim on the central bank, which periodically records balances but in which authorized intermediaries (banks) onboard users, enforce know-your-customer rules and handle retail payments -- will be the best option for developing a safe and reliable alternative to physical cash. However, the report notes that such technical decisions are particularly difficult in the case of retail CBDC design, and that the "magnitude of issuance/ distribution will also help in identifying the appropriate underlying technology best suited to handle such operations" (Reserve Bank of India, 2021, p. 5).

This hybrid architecture similarly seems to be the most popular choice among comparator countries that have expressed a preference for a system operated directly by the central bank (Singapore) and for a system where the CBDC is a claim on an intermediary, not on the central bank (China). In terms of infrastructure, modalities for access (tokens versus accounts versus both), and interlinkages (including with other digital currencies at home and abroad), the intentions of the Indian government and the Reserve Bank remain unspecified, so far as we can tell. This may reflect the fact that there is no consensus, globally as well as nationally, about these aspects of a CBDC's design, as is evident in the table.

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Country Name	Architecture	Infrastructure	Access	Interlinkages
India	Hybrid	-	-	-
Philippines	-	-	-	International
Morocco	-	-	-	-
Ghana	-	-	-	-
Nigeria	-	Decentralized	-	-
Sweden	Hybrid	Centralized	-	None
Taiwan	-	-	-	-
Norway	Hybrid	Hybrid	-	International
Singapore	Direct	Hybrid	Hybrid	-
Brazil	Hybrid	Decentralized	Token	-
Russia	-	-	-	International
China	Indirect	Centralized	Hybrid	-
South Africa	-	-	Token	None
Turkey	Indirect	Decentralized	Hybrid	-
Ukraine	Hybrid	Decentralized	-	International
Mauritius	-	-	-	-
Thailand	Hybrid	Decentralized	Hybrid	International

Table 8: Design Preferences for CBDC Technology Publicly Announced by Case Countries

Note: These design features are the most recent publicly announced preferences by central bank and relevant government officials in each of these countries as of December, 2021. The design features are coded following the technical typology developed by the Bank for International Settlements.

4. Conclusion

When so many central banks and governments around the world are contemplating issuance of a CBDC, it is prudent for officials in India to likewise contemplate the possibility. Although the authorities' initial expression of interest came relatively late, compared to the other countries we consider, it has since been making up ground. The timing of its announcement to commence a pilot project was in line with other countries. Its announced intention of the date by which to complete that pilot and issue its CBDC is similarly in line with announcements from other BRICs but more ambitious than in other countries with a similar per capita GDP and similar levels of central bank independence.

But important questions remain to be answered. India has not yet gone as far as other countries in specifying the design architecture that will govern the operation of its CBDC. A pilot requires an explicit design architecture. Effectively rolling out a CBDC and ensuring that the benefits are widespread requires initiatives on multiple fronts: fostering wider smartphone penetration, specifying data privacy and know-your-customer rules, and verifying banks' technical preparation, as described in Soderberg et al. (2022).

The central bank will have to build durable, reliable relationships with software suppliers, on the plausible assumption that it does not possess all the relevant expertise in house. The experience of the East Caribbean Central Bank, which contracted with a Barbados-based fintech, Bitt, and whose CBDC, known as DCash, went offline for several months in early 2022 due to an expired system

security certificate on the blockchain hosting the ledger, leaving users in the lurch, is a cautionary tale.¹⁶

Such episodes can permanently damage confidence in a country's money; India's own experience with demonetization is a reminder of the importance of preparing infrastructure and implementation capacity in advance of a comprehensive rollout.¹⁷ How long completing these tasks will take is uncertain. In light of those uncertainties, specifying an end-2022 target or deadline strikes us as premature. Rushing may result in problems that prevent the initiative from becoming a success.

Although officials have offered a number of policy rationales for going down this road, we have argued that the case is weaker than they suggest, and that it is weaker than in other countries with which India might be compared. If the country continues to go forward with its CBDC plans, then it is incumbent on officials both to defend and elaborate their rationales and to fill in the gaps on the design front.

In view of the range of questions still to be answered, India should take a cautious and gradual approach toward launching a CBDC. To start, it may take a year for the RBI to form and make available an analysis of the rationale, impact, scope, design and the pace of the launch first of its CDDC pilots and then the digital currency itself. It will need to assess the readiness of the banks, other financial intermediaries, and the public to use that digital currency; its impact on the conduct of monetary policy and its transmission; and its implications for capital flows, the exchange rate, and the practice for other initiatives, to constitute and consult expert groups and to put their analyses and recommendations in the public domain.

It could then take an additional two to three years to run pilots and assess their results. In the Indian context it will be important to analyze the benefits and challenges of CBDC availability for population groups with different levels of literacy, access to the hardware, and internet connectivity, and to adjust design and rollout strategies in light of this analysis.

Following this pilot period, a more general rollout of the CBDC can be envisaged. As indicated by the RBI, cash will continue to coexist with the digital currency for the foreseeable future. In addition, it is important to understand that the CBDC will be used primarily for domestic transactions, requiring the continued existence of alternative vehicles for cross-border transactions.

A final point: rolling out a CBDC is not going to make stablecoins and plain vanilla cryptocurrencies go away. Quite separate from discussions around possible issuance of a CBDC, the relevant governmental agencies can learn from their experience. They can learn faster if they first put the relevant regulatory systems in place.

Appendix: Timeline of the discussions and deliberations on the CBDCs (and Crypto assets)

December 9, 2016: <u>Watal Committee Report on Digital Payments provided the earliest</u> reference on adoption of CBDCs.

The report included the following para on digital currency:

"Digital currencies are currency issued in a digital form. This could include cryptocurrencies such as Bitcoins (which are an independent form of money separate from any country's central bank issued legal tender) or digitally issued central bank currencies. In the course of consultations, the Committee was presented with a case for digitally issued Indian currency, as a means to substitute physical currency. Central bank issued digital currency seeks to retain the characteristics of central bank issued M0 currency, but merely changes the form factor from paper to digital. Such a digital currency would have to be issued by the RBI, and used by way of hardware modules. The security of the currency is ensured by cryptographic technology, inspired by existent security features on physical currency. The Committee notes that several benefits of digital currency, including the instantaneous settlement of transactions, reduction of costs of cash, ability to provide a more comprehensive and unified source of credit history and reduction in instances of tax avoidance. The most significant benefit however, is that the technology makes it extremely difficult to counterfeit, and more importantly enables the central bank to detect the existence of counterfeit currency on a real-time basis."

November 2, 2017: A high level Inter-Ministerial Committee was constituted by the Ministry of Finance, Government of India (GoI) to examine the issues related to virtual currencies and propose specific action to be taken in this matter.

February, 2018: Union Finance Minister in his Budget speech announced that the "Distributed ledger system or the Block chain technology allows organization of any chain of records or transaction without the need of intermediaries. The Government does not consider cryptocurrencies legal tender or coin and will take all measures to eliminate the use of these crypto assets in financing illegitimate activities or as part of the payment system. The Government will explore use of blockchain technology proactively for ushering in digital economy."

February 28, 2019: Inter-ministerial Committee report on Virtual Currencies was submitted. The Committee recommended a ban on private virtual currencies and recommended the study of India relevant CBDC models.

The Report highlighted the positive aspect of distributed-ledger technology (DLT) and suggested various applications, especially in financial services, for use of DLT in India. As for private cryptocurrencies, given the risks associated with them and volatility in their prices, the

Group recommended banning of the cryptocurrencies in India and imposing fines and penalties for carrying on of any activities connected with cryptocurrencies in India.

The Group proposed that the Government keeps an open mind on official digital currency. As virtual currencies and its underlying technology were still evolving, the Group has proposed that the Government may establish a Standing Committee to revisit the issues addressed in the Report as and when required.

January 1, 2021: An RBI report, Payment and Settlement Systems in India: Journey in the second decade of the Millennium 2010-20, mentioned that the RBI was examining the requirements and modalities for operationalizing a digital rupee.

February 6, 2021: It was <u>reported in the media</u> that an RBI internal panel was taking a close look at the CBDCs.

February 26, 2021: The RBI's report, Currency and Finance 2020-21, briefly discussed the potential benefits and challenges of issuing CBDCs for advanced and emerging market economies including India.

July 22, 2021: <u>Speech by RBI Deputy Governor T Rabi Shankar at a webinar organized by Vidhi</u> <u>Centre for Legal Policy, New Delhi), CBDC- Is this the future of money</u>. He described what a digital currency is, its benefits, and the rationale for India to have its own digital currency.

"Generally, countries have implemented specific purpose CBDCs in the wholesale and retail segments. Going forward, after studying the impact of these models, launch of general purpose CBDCs shall be evaluated. RBI is currently working towards a phased implementation strategy and examining use cases which could be implemented with little or no disruption. Some key issues under examination are – (i) the scope of CBDCs – whether they should be used in retail payments or also in wholesale payments; (ii) the underlying technology – whether it should be a distributed ledger or a centralized ledger, for instance, and whether the choice of technology should vary according to use cases; (iii) the validation mechanism – whether token based or account based, (iv) distribution architecture – whether direct issuance by the RBI or through banks; (v) degree of anonymity etc. However, conducting pilots in wholesale and retail segments may be a possibility in near future."

- December 28, 2021: <u>Report on Trends and Progress of banking in India 2020-21</u>. <u>Briefly discuss</u> role of CBDC and cross border transactions.

"Given its dynamic impact on macroeconomic policy making, it is necessary to adopt basic models initially, and test comprehensively so that they have minimal impact on monetary policy and the banking system. India's progress in payment systems will provide a useful backbone to make a state-of-the-art CBDC available to its citizens and financial institutions."

- December 13, 2021: Lok Sabha 23 Nov 2021 bulletin: The Cryptocurrency and Regulation of Official Digital Currency Bill, 2021: To create a facilitative framework for creation of the official digital currency to be issued by the Reserve Bank of India. The Bill also seeks to prohibit all private cryptocurrencies in India; however, it allows certain exceptions to promote the underlying technology of cryptocurrency and its uses. This bill has not been tabled yet in the parliament.
- February 1, 2022: <u>In Union Budget for 2022-23</u>, the Finance Minister announced a flat 30 % tax on income from Virtual Digital assets or crypto.
- February 1, 2022: The Finance Minister announced in the Union <u>Budget for 2022-23 that India will</u> issue a "digital rupee" during the fiscal year 2022-23 (April 1, 2022-March 30, 2023).
- March 26, 2022: Finance bill, 2022 passed by parliament. This bill, inter alia, proposes to insert a clause (aiv) in Section 2 of the Reserve Bank of India Act, 1934, which increased the ambit of the term "bank note" to include notes in digital form.
- **April 7, 2022:** ICRIER Webinar on: Getting Central Bank Digital Currency (CBDC) Right for India: Lessons from G20 and the Rest of the World. Deputy Governor T Rabi Shankar mentioned in his opening remarks that the launch of a CBDC for India was inevitable. It was not a question of whether, but how to do it well. That the RBI was working on it full time since the Finance Minister announced it in the budget. The case for a CBDC was considered to be weaker earlier due to the ubiquity of digital payments. The sentiment has changed with the advent of the stable coins. Since the stablecoins are not volatile, they are deemed to be a more credible alternative/challenge to the fiat currency. Digital Yuan has been another imperative toward a CBDC in India. That there would be a one to one convertibility between the digital and physical currency. In the RBI's balance sheet, it would be treated in a similar fashion and will be recorded along with the paper currency, not as a separate instrument (as apparently is being considered by the US). It would not earn interest. Since most of the central banks are grappling with these questions; and there is very little to draw from other countries' experiences, India was unlikely to rush through it. The RBI would introduce and implement it in a gradual/calibrated manner with the course correction as needed; and would do no harm!
- April 7, 2022: ICRIER Webinar on: Getting Central Bank Digital Currency (CBDC) Right for India: Lessons from G20 and the Rest of the World. The Chief Economic Advisor to the Government of India said, "With the advent of CBDC, virtual private currencies won't be eliminated or lose their appeal. They have to be tackled separately with other regulatory instruments." He cautioned that the success of CBDCs will be dependent on the inclusion of the lower socio-economic groups in the country; and that likely a phased roll out would be required (first at the wholesale level and then at the retail level; and in further phases even in retail level). He cautioned on

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the high **storage and processing requirements, as** the ledger grows substantially over time and the need to ensure these capabilities.

- April 8, 2022: In the <u>Post Monetary Policy Meeting Press conference</u>, the <u>RBI Deputy Governor</u> <u>clarified that India will first introduce a wholesale currency.</u>

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NOTES

¹ A 2021 survey by the Bank for International Settlements found that 86 % of central banks were researching issues around CBDCs, that 60 % were experimenting with the technology, and that 14 % were in the process of deploying pilot projects.

² As the BIS (2021) writes, "Wholesale CBDCs are intended for the settlement of interbank transfers and related wholesale transactions, for example to settle payments between financial institutions."

³ At a post Monetary Policy Committee press conference on 8 April 2022, Deputy Governor T. Rabi Sankar indicated that the RBI will debut a wholesale CBDC, possibly to be followed by a retail version.

⁴ Financial stability might be placed at risk if bank depositors, at the first sign of trouble, find it easy to run on their bank by shifting their deposits to the central bank. If such shifts are permanent or ongoing, the commercial banking system may be disintermediated. Insofar as currency substitution is facilitated by CBDCs that circulate outside the issuing country, room for independent monetary policies may be reduced. These are important issues, but they are beyond the scope of this short paper.

⁵ Compliance with know-your-customer rules would mean that the central bank would have to require identifying information (the People's Bank of China requires customers downloading its digital wallet to provide a registered phone number) and/or mean that the size of transactions and balances would be limited.

⁶ It might be argued that moving these retail transactions onto a blockchain with CBDC would reduce costs for the NPCI, increase speed of transactions and eliminate disputes. We have yet to see evidence.

⁷ Some banks also provide other services, such as a checkbook, email statements and demand drafts.

⁸ An account is treated as inactive in these data if there were no transactions in the preceding two years.

⁹ The penetration of basic mobile phone is, of course, much higher. On the other hand, not a few Indians own multiple smartphones, meaning that the number of individuals who can utilize a CBDC wallet may be lower than the raw ratio.

¹⁰ Thus, Bank of Ghana (2021, p.27) writes "From a perspective of technology, it is feasible to implement an offline eCedi [Ghana's prospective CBDC] with a smartcard (potentially – with a smartphone) using standard interfaces like NFC or Bluetooth. Transactions for offline payments are therefore instantly settled without accessing a backend system." How this would work in practice is still being explored by computer scientists and hardware designers.

Preloading CBDC with a unique digital signature onto a smartcard inserted into a smartphone eliminates the danger that the same CBDC will be used for multiple offline payments. Two smartphone users could in principle then transfer funds between their respective smartphones using Bluetooth or near-field communication (NFC). Or merchants might have a smart "point of contact" or other piece of hardware that could communicate by Bluetooth or touch with the retail customer's smartphone. The payment is peer-to-peer without any intermediary and clears instantaneously. The accounting system is then updated when reconnection to the network happens. A paper from Visa (Christodorescu et al. 2020) explains how this might work. But not only are the required software and hardware still largely hypothetical at this stage, users will also require a smartphone, which is a constraint in countries such as India, as just noted. One can also imagine CBDC being loaded onto smartphone alternatives (keyfobs, wristbands) that could then be plugged into a desktop, laptop, or similar device and updated when reconnected to a network, but how much these devices would cost and how they would work are unknown at this stage. This approach might also heighten risk of loss (since keyfobs are easy to misplace), and the size of offline transactions would have to be limited to conform to anti-money-laundering and know-your-customer rules.

¹¹ As of 2022, Libra / Diem is no more, but this doesn't change the fundamental point.

¹² Note, however, that the Google Pay app can be used for transfers between individuals but not merchants.

¹³ This leads many to prefer using US dollar-denominated stablecoins, at least in principle. However, these come in a range of operational models and are subject to little oversight and regulation, which similarly diminishes their attractions.

¹⁴ One can imagine a DeFi future in which banks use on-chain and off-chain data to generate a more accurate picture of customers' financial worth in order to craft attractive loan terms. Alternatively, one can imagine crypto companies obtaining bank licenses in order to secure additional off-chain information. We are not yet, and whether regulators will permit this kind of on- and off-chain convergence remains an open question.

¹⁵ Respectively based on World Bank's most recent estimate of GDP per capita in purchasing power parity (economic), Garriga's (2016) data for central bank independence (institutional), a binary indicator of whether a country is a co-member of BRICS (categorical), and the ranking from WIPO for global technological competitiveness (technological).

¹⁶ Evidently, neither the central bank nor Bitt knew of the expired-license problem in advance.

¹⁷ To address these risks, some countries, China for example, are attempting to build in off-line functionality, where the CBDC can be used for transactions even when the central ledger is inoperable – for example, by permitting hardware-based transactions between pair of wallets or cards embedded in two different smartphones. But absence of access to the central ledger created the danger of double spending, which has led the PBoC to limit the number of permissible offline transactions, and the danger of counterfeit transactions, since the central ledger will not be available for verifying authenticity.

Central banks are exploring the use of digital signatures and encrypted storage to address these problems. The experience of the Bahamas has revealed yet another problem also relevant to India: such direct phone-to-phone transactions presumably still have to go through a cell tower, and hurricanes and monsoons have been known to topple such towers.

India's Public Financial Management System: Need for Reforms and Way Forward

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Abstract

A robust Public Financial Management (PFM) system contributes to enhanced accountability and transparency in governance, and is associated with efficient and equitable public service delivery, poverty reduction, and economic growth. India's existing PFM framework is scattered across a wide range of provisions and is riddled with inconsistencies. There is a need to bridge the gap between the high-level PFM structure contained in the Constitution, and the operational details found across guidelines, rules, regulations, and manuals at the Union and State levels. In this context, this paper looks at the key areas in which India needs PFM reforms, building on the provisions of a draft PFM law prepared by an expert group and cited by the Fifteenth Finance Commission. These include fiscal responsibility, the Annual Budget, financial management, reporting and accounting, and legislative and executive oversight. We study the existing frameworks in these areas and propose reforms, drawing from international experience and best practices, with the aim of charting a comprehensive way forward for PFM in India.

Keywords: Public Financial Management, Public Service Delivery, Governance, Fiscal Responsibility

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I Overview

A. The scope and importance of Public Financial Management

Public Financial Management (PFM) has been defined as "the way governments manage public resources (both revenue and expenditure) and the immediate and medium- to long-term impact of such resources on the economy or society" (Andrews et al, 2014). While, initially, PFM was more about financial control and compliance, it has now grown to include the maintenance of a sustainable fiscal position, effectively allocating funds, and efficiently providing public goods.

PFM's "financial management" role has thus transformed into a more comprehensive "finance management" function. Cangiano, Curristine, and Lazare (2013) observed that PFM has now broadened to include "all aspects of managing public resources, including resource mobilisation and debt management, with a progressive extension to the medium to long term implications and risks for public finances of today's policy decisions." PFM now covers all governmental tiers, and also the public sector, including Public Sector Enterprises (PSEs) and Public-Private Partnerships (PPPs). As described by Cangiano, Curristine, and Lazare (2013), "PFM is now seen as an umbrella definition, covering a set of systems aimed at producing information, processes, and rules that can help support fiscal policymaking, as well as provide instruments for its implementation."

There is consensus in the literature that the objectives of PFM are achieving aggregate discipline, allocative efficiency, and operational efficiency (Kristensen *et al*, 2019). Along similar lines, the Fifteenth Finance Commission (2020) in its report identified four overarching objectives of PFM, namely aggregate fiscal discipline, strategic budgeting and planning, operational efficiency, and accountability and transparency:

- Under the aggregate fiscal discipline objective, it highlighted the need for adequate and consistent fiscal coverage and reporting, and accurate macroeconomic and fiscal forecasting;
- Under the strategic budgeting and planning objective, it recommended moving towards performance orientation of budgets;
- Under the operational efficiency objective, it recommended strengthening cash management practices; and
- Under accountability and transparency, it noted the importance of timely public information being widely available.

A strong PFM system is a key component of the institutional framework for an effective government, and for public service delivery across the levels of government (Schwartz *et a*l, 2020). As such, it is closely associated with reducing poverty and stimulating economic growth (Fifteenth Finance Commission, 2020). Kasoma (2018) notes that "Countries with strong, transparent, accountable PFM systems tend to deliver services more effectively and equitably and regulate markets more efficiently and fairly." On this basis, he concludes that good PFM is a "necessary condition" for development outcomes. It has been seen as instrumental in achieving broader development objectives such as macroeconomic stability, efficient resource allocation, and service delivery (Welham, Krause, & Hedger, 2013).

Good PFM can thus be a "linchpin that ties together available resources, delivery of services, and achievement of government policy objectives" (Public Expenditure and Financial Accountability [PEFA] Secretariat, 2016). The need to move in this direction has been accentuated by the implications of COVID-19 on public finances and its 'scissor' effect on revenues and expenditures.

B. Public Financial Management in India

India's existing PFM framework encompasses a wide canvas of provisions, including constitutional provisions, legislations, rules and regulations, and other documents. The basic framework for PFM in India is enshrined in the Constitution, which provides for a PFM structure at a high level. This constitutional structure is supplemented by many statutes, subordinate legislations, guidelines, manuals, government orders, and other such instruments, framed at different points in time (Fifteenth Finance Commission, 2020).

Even though multiple reforms have been undertaken over the years, they have largely been piecemeal and driven by the need to incorporate developments in Information and Communications Technology (ICT) (such as the Integrated Financial Management Information System (IFMIS)). So far, reform efforts have not targeted the underlying PFM structure in any significant way.

There is a gap between the broad PFM structure, as contained in the Constitution, and the more operational PFM guidelines, rules, regulations, and manuals.

- The Constitution provides for the relative powers of the executive and legislature on financial matters; the independence of constitutional authorities; independent external audit by the Comptroller & Auditor General of India (C&AG); distribution of powers between the Union and the States; the institutional mechanism of the Finance Commission to divide financial resources between the two levels of government (and to provide for the third tier as well); preparation, presentation, and management of the Annual Budget; and so on.
- On the other hand, operational guidelines are found in other instruments such as the General Financial Rules, 2017 (GFR), Government Accounting Rules, 1990 (GAR), Receipt and Payment (R&P) Rules, 1983, Delegation of Financial Rules, Budget Manual, and Treasury Manuals, at the levels of both the Union and the States.

As recommended by the Fifteenth Finance Commission (2020), there is a need to bridge this gap and encapsulate the essential and core PFM principles in a succinct, consolidated, and organised manner.

Apart from this, since existing PFM provisions have been developed at different points in time and at different levels, there are *inter se* inconsistencies in the underlying provisions and processes. Moreover, many such provisions are outdated. For instance, while the GFR had been amended in 2017 to adopt new changes in ICT, the GAR and R&P Rules still need updating to accommodate the new ICT systems.¹ There is thus a need to rationalise existing rules and regulations, make them internally consistent, and address any gaps and infirmities in them. At the same time, there is a need for overarching, multi-level binding standards that increase consistency and accountability in governance across the tiers of government.

Hence, a number of structural reforms are needed, such as upgrading internal audit, increasing fiduciary duties applicable to all stakeholders, and improving levels of transparency. The crucial role

of legislative oversight needs to be better recognised and enhanced. One way in which this can be achieved is through mandating ex-ante reporting through strategies, plans, and budgets (to establish the government's medium- to long-term intentions), coupled with ex-post reporting through budget execution reports, mid-year and end-year reporting, as well as reporting on the achievement of, and deviation from, fiscal objectives.

Essentially, governments need to be held accountable for their decisions on spending and revenue. While the existing Fiscal Responsibility and Budget Management (FRBM) laws at the Union and State levels do this to an important extent, this regime needs to be built and made consistent across all levels of government.

To address the gaps in transparency and meaningful fiscal analysis, it is essential to have common, comprehensive definitions and formulations of fiscal indicators and standard reporting across levels of government. In practice, the fiscal rules contained in the FRBM Acts have been circumvented by, for instance, using entities outside the government for off-budget borrowings, misclassification of revenue expenditures as capital expenditure, etc. Fiscal deficit or public debt should be defined and calculated in the same way across governments. Presently, however, there is variability in these definitions across State FRBM Acts. This creates room for differences in reported deficit and debt, making them non-comparable, and thereby, difficult to consolidate.

In this context, the Fifteenth Finance Commission (2020) recommended a range of essential PFM reforms for India. It also cited a draft law, prepared by an expert group, that could potentially serve as a comprehensive, overarching legal framework for PFM in India, and usher in these reforms (Alamuru & Vidhi Centre for Legal Policy, 2020).

This paper builds on the provisions of this draft law and takes a close look at the key areas in which India needs PFM reforms. These include fiscal responsibility, the Annual Budget, financial management, reporting and accounting, and legislative and executive oversight (Chapters III, IV, V, VI, & VII of the draft PFM law). We study the existing frameworks in these areas and argue for reform, drawing from a wide range of international PFM experience. On this basis, and elaborating on the provisions of the draft PFM law, we present various recommendations for these reforms. Overall, we aim to chart out a comprehensive way forward for PFM in India.

II Fiscal Responsibility

At the Union as well as State levels, the government's fiscal policy framework needs strengthening in order to ensure that governments make credible and prudent decisions about their spending and revenue, and do so in a transparent manner, over a medium-term horizon.

Governments need to be held accountable against clear fiscal responsibility principles, such as achieving a sustainable budget balance over a reasonable time period, maintaining a prudent level of public debt, managing fiscal risks in a prudent manner, ensuring value for money in the use of resources, and pursuing macroeconomic stability, inclusive growth, environmental sustainability, and intergenerational equity (Section 11(1) of the draft PFM law). These principles should not be time-bound, but should allow governments to manage and tide over the economic cycle or the period over which an adverse situation persists, such as the COVID-19 pandemic.

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The draft PFM law cited by the Fifteenth Finance Commission complements the existing regime of FRBM laws at the Union and State levels (Sections 20 & 21 of the draft PFM law). These existing FRBM laws at the Union and State levels, and the rules issued under them, typically include a range of numerical fiscal targets, including fiscal deficits and debt ceilings. The draft PFM law can support both the present numerical-based fiscal rules framework as well as a principles-based one, such as the one in New Zealand.²

To strengthen the existing FRBM regime, governments should be required to prepare and table a Fiscal Strategy before their legislatures, linked to the budgeting exercise (Section 12 read with the Second Schedule of the draft PFM law). The Fiscal Strategy should be accompanied by a suite of allied strategies and plans, including a medium- to long-term outlook in terms of sustainability reporting of existing policies, an investment statement to explain the significant assets and liabilities of the Government, and a Public Investment Programme (PIP) to provide a medium-term list of prioritised programmes and projects (Sections 13, 14, & 15 of the draft PFM law). While the Fiscal Strategy does exist under the existing FRBM regime, albeit in a limited manner, the other documents represent new proposals that do not have any parallels in India currently.

These are not mere reporting requirements. To implement these, governments would need to strengthen underlying capabilities and processes through reforms such as pubic investment management, financial reporting and accounting, policies on budget allocation, and introducing e-governance applications. This is critical, especially because post-COVID-19, governments should re-evaluate and take medium- to long-term views of their assets and liabilities.

Consistent with international experience, compliance with these strategies and principles should be reviewed by independent institutions, which are created and mandated by law. These reviews should include an analysis of the achievement of and compliance with the fiscal responsibility principles; an analysis of the trends in economic and fiscal forecasts; a review of the accounting and forecasting methods used; and an analysis of the reports and disclosures made for transparency. In the first instance, the government should conduct such a review of its own performance, followed by relevant legislative committees reviewing their respective government's performance, and supplemented by an independent fiscal institution's (such as a fiscal council³) review.

Currently, the C&AG is legally mandated to review the compliance of the Union Government under the Union FRBM Act. This arrangement could continue, for the time being, until an independent fiscal institution is established for this purpose (Section 19 of the draft PFM law). The State FRBM Acts do not require the C&AG to perform this review function. Until independent fiscal institutions are established at the State level as well, it may be desirable to legally mandate such a function to the C&AG in the States as well.⁴

A. Fiscal Strategy

It is critical to lay down a well-defined Fiscal Strategy, so that governments are required to frequently provide information that reveals their intentions. Against this, their performance can be judged. Presently, the Union FRBM Act and most State FRBM Acts do require their respective governments to table a document in the nature of a fiscal strategy in their legislatures.

To take the example of the Union FRBM Act, its "Fiscal Policy Strategy Statement" is expected to include:
- government policies relating to taxation, expenditure, market borrowings, lending and investments, pricing of administered goods and services, securities, and guarantees;
- the government's strategic fiscal priorities;
- key fiscal measures and the rationale for any major deviation in fiscal measures relating to taxation, subsidies, expenditure, administered pricing and borrowings; and
- an evaluation of how current governmental policies are in conformity with fiscal management principles and the objectives set out in the Medium-term Fiscal Policy Statement, as specified in the FRBM Act.

The draft PFM law seeks to strengthen and enhance this critical document, and introduce an element of uniformity in this practice across Union and State levels. The Fiscal Strategy should incorporate the aforesaid fiscal principles in the form of measurable fiscal objectives and monitoring indicators. It should include:

- a report for the recently concluded financial year;
- a medium-term macroeconomic forecast setting out the values of economic variables such as inflation, employment, and interest rates;
- a statement of assumptions and methodologies on which the forecasts are based;
- information on longer-term macroeconomic forecasts;
- medium-term fiscal forecasts setting out the values of fiscal variables such as revenues, aggregate expenditures, budget balance, and sources of budget financing;
- fiscal forecasts for the longer term that have been used in formulating the fiscal policies in the Fiscal Strategy;
- fiscal policy priorities and information for revenues, debt, deficit, expenditure, and assets;
- medium-term expenditure intentions and an explanation of any changes in the proposed ceilings from previous Fiscal Strategies; and
- an explanation of how fiscal policy supports macroeconomic stability, inclusive growth, and intergenerational equity (Section 12 read with the Second Schedule of the draft PFM law).

The Fiscal Strategy can serve as a key accountability document, and can be considered as the frontend of the budget process. It can capture governments' intentions for economic and fiscal performance in terms of budget balance and debt objectives, along with long-term fiscal objectives and short-term goals, with fiscal forecasts for up to the next 10 years. It should also include a fiscal risk statement which details the risks to the forecasts, contingent liabilities, and other material risks including mitigation strategies. This will provide governments with more scope to use fiscal policy to meet emerging economic and fiscal situations, such as the ongoing COVID-19 pandemic. Consistent with this view, while the strategy document must contain a minimum set of fiscal objectives that are numerically measurable, legislatively stipulating such fixed numerical values may not be desirable.

This strategy should be prepared by the time the budgeting exercise commences, as opposed to submissions made at the time the budget is presented. In the future, the Union FRBM Act's fourpart Fiscal Policy Statement, comprising the Medium-Term Fiscal Policy Statement, the Fiscal Policy Strategy Statement described above, the Macro-economic Framework Statement, and the Medium-Term Expenditure Framework Statement, could be subsumed within the comprehensive Fiscal Strategy proposed in the draft PFM law.

It is important to note that in certain circumstances, deviations from the fiscal objectives contained in the Fiscal Strategy might be justified (Section 18 of the draft PFM law). Such circumstances must be clearly specified, and crucially, there should be a mitigation and reporting process that gets triggered in the event of such deviations. For example, such circumstances might cover events that are truly outside the control of governments and severely affect their fiscal positions, such as national security issues, natural calamities, structural reforms in the economy, severe economic shocks, and significant downturns in a productive sector.

The need for this flexibility has been reinforced in the context of the COVID-19 pandemic. This flexibility should be accompanied with a reporting process that requires the deviating government to specify its plan to address the deviation and secure its path back to compliance. The aim should be to allow governments some leeway to act in times of crises, while also requiring them to explain their actions transparently. This should facilitate both flexibility as well as accountability.

B. Long-term Fiscal Sustainability Report

The long-term fiscal sustainability report should attempt to assess the impact and implications of the country's demographics, economy, environment, and other factors, based on various scenarios, on the fiscal metrics. Fiscal sustainability in the long-term looks at whether a government has the ability capacity to finance its future policies and debt obligations without casting an undue burden on future generations. To achieve such sustainability, there needs to be greater economic growth compared to public debt over time. The need for this arises as governments' fiscal strategies and policies are increasingly being challenged on account of foreseeable demographic trends for the future and their impact on the country's public finances in the long-term. This can be seen through indicators such as governmental expenditure as a proportion of Gross Domestic Product (GDP).

The assessment should identify significant actions that need to be taken by various players, and what sectors will put pressure on government expenditure. This report should provide long-term projections of public finances and sustainability of debt, and should include a discussion on fiscal risks. Ultimately, this report should help governments in understanding how to reorient their fiscal policy in a manner that prevents the accumulation of unsustainable government debt in the long-term. This would require governments to prioritise based on relative risk to public finances.

Many countries are now reporting on fiscal sustainability over different time horizons such as Brazil (10 years), Canada (70 years), Ireland (25 years), Switzerland and the United States of America (30 years), Slovakia and the United Kingdom (50 years), Portugal (15 years), and Lithuania (20 years). The frequency of these reports varies from annual to once every two or three years.

A useful example of the benefits of such reporting can be seen through a brief overview of Switzerland's Long Term Sustainability Report from 2016. This report noted that if Switzerland's economy, demographic structure, and net immigration rate do indeed develop in line with forecasted scenarios, then its ratio of general government expenditure to GDP would rise from 32 percent to 36 percent by 2045. It also observed that the foreseeable upward pressure on spending on healthcare and long-term care will make reforms inevitable. To make these burdens manageable, it identified a need

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to secure the financing of the country's social security mechanisms in a timely way. On the positive side, it noted that the disposable income of the working-age population was set to rise further thanks to continued economic growth.

Similarly, the 2020 Canadian report concludes that the ageing of the population will move an increasing share of Canadians out of their prime working-age years and into their retirement years, resulting in slower growth in the Canadian economy. Slower economic growth will put a downward pressure on government revenues as growth in the tax base slows. At the same time, population ageing will put upward pressure on other government programmes such as health care, old age security, and pension benefits. Programmes targeted to younger age groups will face reduced pressure as the population ages.

We believe that India should consider introducing long-term sustainability reporting with a time horizon of around 20 years, with such a report needing to be published once every five years.

C. Investment Statement

The Investment Statement should provide details of the state and value of governments' significant assets and liabilities, both current and forecasted, and explanations for these change. These Investment Statements should lay out how public resources have been or will be used. It would hinge on good balance sheet management that includes efficient asset management, sustainable funding, and prudent risk management, accompanied with information that can guide subsequent government decisions and actions.

New Zealand is the pioneer in implementing this futuristic reporting framework, and it produces such a report every four years. New Zealand's 2018 Investment Statement, titled "Investing for Well Being (*He Puna Hao Patiki*)", noted that the task of policymakers is incomplete without having a view on how the application of good balance sheet management principles support living standards. It observed that the government's balance sheet was currently strong, and this provided resilience in the face of adverse events. It stated its long-term aim and vision to further broaden their approach of linking balance sheet management to well-being, using the organising principles of New Zealand's Living Standards Framework.

We believe that India should consider adopting this practice and producing an Investment Statement every two years. However, to meet the Investment Statement's requirement of preparing the government balance sheet, India would need to follow the accrual basis of accounting. Presently, most entities of Union and State governments maintain cash-based system. This issue is addressed in a subsequent section of this paper.

D. Public Investment Programme

The PIP should contain a rolling list of priorities and costed programmes/projects within the medium-term, aligned with the Fiscal Strategy, that aim to achieve the goals of the Government. It should translate the strategies and policies into concrete, prioritised programmes and projects over a 5-6-year horizon, and should be based on an overarching long-term plan or vision statement of the Government.

Under Australia's Financial Management and Accountability Act, 1997, the heads of spending agencies are required to promote "proper use" of public resources, defined as "efficient, effective, and ethical use" that is "not inconsistent with the policies" of the country. New Zealand and the United Kingdom also employ a comparable approach. Once the need for sound public investment management is established, it has to be supplemented by a detailed framework encompassing roles and responsibilities, relevant procedures and methodologies, and assessment criteria (Jay-Hyung, Fallov, & Groom, 2020). For example, Cyprus' Fiscal Responsibility and Budget Systems Law, 2014 details five stages as part of its public investment management process:

- 1. Pre-selection of projects
- 2. Project assessment
- 3. Project selection
- 4. Project implementation
- 5. Monitoring of projects and amendments to contracts

The preparation of a PIP would be greatly facilitated through an online ICT application with a database of programmes and projects. This could serve as a tool to link planning, budgeting, and monitoring to move towards performance-based resource allocation and to monitor project implementation and generate reports. For example, the Philippines uses an ICT tool called PIP Online or PIPOL, which contains a database of government programmes and projects.

Beyond serving as a database of projects, the PIP should cover project identification, project screening, and project prioritisation. It should also categorise projects into those that are to be financed by the Government's budget, by development assistance, and by PPPs. It could also serve as a valuable source of data for commitment control, by facilitating some much-needed control over multi-year public investments.

Currently, governments in India do not need to obtain separate legislative approval for multi-year investment projects and commitments. While legislative approval should not be needed for individual projects, governments should be required to table a PIP before their legislatures. This would ensure that the legislature is informed about the projects that the government intends to undertake over the next several years, and enable meaningful legislative oversight over such expenditure as part of the budget approval process. Union Ministries and State Departments should be allowed to enter into multi-year contracts only if the overall contractual amount is within the amount that was disclosed to the legislature through the PIP.

The Union Government and some State Governments are presently working on introducing such a framework for public investment management, and its guidelines are at various stages of development and/or implementation. Also, some State Governments in India have introduced a volume containing a list of programmes and projects (for example, Appendix D in Karnataka). However, these are not prioritised, and are generally presented ex-post after the budget is presented.

E. Financial Memorandum for extra-budgetary proposals

A cardinal principle in financial management requires the spending Ministry or Department not to enter commitments or incur expenditure beyond its remit or above those approved in the Annual

There is a need to create a formal requirement that whenever a Ministry or Department proposes any policy or measure that would require expenditure beyond what was authorised by the legislature in the Annual Budget, it should prepare a financial memorandum that contains projections of financial implications for the government over the short, medium, and long term (Section 16 of the draft PFM law).

- This memorandum should be submitted to the finance minister, who should provide a written opinion regarding the same to the Council of Ministers as to whether to proceed with the proposal.
- If approved, the government should then table a new statement before the legislature ٠ regarding the additional expenditure that needs to be incurred on account of the new policy or measure.
- The additional expenditure would then need to be formally approved by the legislature through a new grant and Appropriation Act.

III. The Annual Budget

The broad principles and directions with respect to the Annual Budget are laid down in the Constitution for both the Union (Articles 112-117) and the States (Articles 202-207), while the detailed procedures and processes are provided in the respective Budget Manuals and Financial Rules of the Union and the States.

The Constitution requires the Executive to annually present a statement of the estimated receipts and expenditure of the Government, and this is referred to as the 'annual financial statement'. It seeks to distinguishing revenue from other expenditure, and lists expenditure charged on the Consolidated Fund which the Legislature may discuss but not vote upon. The Constitution also provides for supplementary and excess grants, vote on account, and vote on credit to facilitate management of requirement of funds during budget execution.

The Budget Manuals, on the other hand, stipulate the responsibilities of the Finance Ministry or Department and the line departments with regard to the preparation of budget; the timelines, formats for submitting the budget/revised/ supplementary estimates; the principles guiding re-appropriation; and so on.

The annual budgeting exercise is undoubtedly the most important component of PFM, as it is through this exercise that the government seeks to fulfil its promises to the electorate. Important social and economic obligations, as also aspirations of citizens, are met through this annual exercise of raising resources and spending them on various government programs.

Between the very broad guidelines in the Constitution and the minute details in the Budget Manuals, however, the essential principles and necessary good practices are often obscured. As with

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PFM generally, there is a need to bridge the existing gap between budgeting guidelines and principles on the one hand, and budgeting practices on the other.

A. The Budget calendar

One of the first issues is about the dates for the presentation and approval of the budget. The PEFA programme's methodology for assessing PFM performance identifies the budget preparation process as a key indicator to assess a country's PFM system. It notes the importance of an orderly budget process that allows budget proposals to be developed in a manner that adequately takes into account all relevant factors (PEFA Secretariat, 2018).

PEFA notes that this increases the likelihood of the budget process being supportive of both, fiscal discipline as well as efficient resource allocation and service delivery. Conversely, it observes that delays in the process and ultimate passing of the budget tend to create uncertainty about approved expenditure and in turn, to delays in government activities. The International Monetary Fund (IMF, 2019), in its fiscal transparency code, also highlights the importance of timeliness of budget documents, such that the legislature and wider public are consistently given sufficient time to scrutinise and approve the annual budget.

These observations are borne out in India's experience. Until 2017, while the Union's Annual Budget was presented on the last day of February, the State Governments would not follow a single fixed date for presentation of the budget. After presentation of the Union budget, Parliament would go into a recess and the departmental standing committees would examine the estimates. Then, Parliament would reconvene sometime in April, and the budget would be finally passed sometime in the second half of May. Parliament would, in the meantime, pass a vote on account that allowed the Government to draw funds from the Consolidated Fund until the budget was approved by the Legislature.

Because of the delayed presentation of the Union Budget, the States would not have a clear idea of their share of devolved funds and grants-in-aid. This led to the States also delaying their budget presentations, sometimes even beyond the start of the new financial year. As a result, governments were unable to start incurring expenditure before the monsoon season, which would effectively put the brakes on public expenditure (especially expenditure on public works).

This was rectified in 2017 when the Union finance minister presented the Union Budget on 1 February, and it is now being approved before the end of the financial year. While this is a positive development, there is a need to formalise this and set a hard deadline for both the Union as well as the States to present their budgets. Ideally, the Union Budget should continue to be presented on the first day of February, and all State Budgets should be presented before the last day of February (Section 22(2) of the draft PFM law).

B. Budget comprehensiveness and guiding principles

Beyond the dates, there is a need to enhance the scrutiny of the schemes that are included in the budget. For this, these schemes should be consistent with the PIP mentioned in the previous section, and they should contain, where practicable, a sunset clause, outcome-based measurable objectives, and a provision for periodic and end-term evaluation (Section 22(6) of the draft PFM law).

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PEFA (2018) identifies four basic elements of fiscal information that are critical for enabling the legislature to adequately comprehend and scrutinise the government's fiscal position. These are:

• Forecast of the fiscal deficit or surplus;

Schedule of the draft PFM law).

- Previous year's budget outturn, in the same format as the budget proposal;
- Current fiscal year's budget presented in the same format as the budget proposal; and
- Aggregated budget data for both revenue and expenditure according to the main heads of the classifications used, including data for the current and previous year with a detailed breakdown of revenue and expenditure estimates.

PEFA (2018) also lists certain additional elements, which it considers to be good practice to include as part of budget documentation. These include details regarding deficit financing, macroeconomic assumptions, debt stock, financial assets, fiscal risks, explanation of budget implications of new policy initiatives, medium-term fiscal forecasts, and quantification of tax expenditures.

In India, the Union and State Budgets should depict information relating to budgeted and actual receipts and expenditure for the two preceding financial years, budgeted and revised estimates of receipts and expenditure for the current financial year, budget estimates of receipts and expenditures for the ensuing financial year, and projected estimates of receipts and expenditure for one financial year thereafter.

- The estimates of receipts should show revenue estimates as well as financing estimates, with the latter including information on matters such as external financing in the form of borrowing and grants, domestic issuance of government bonds, issuance of guarantees, divestment of government assets, and approval of new PPP contracts.
- The estimates of expenditure should separately show the expenditure charged on the Consolidated Fund and other expenditure, and distinguish expenditure on revenue account from other expenditure (Section 23 of the draft PFM law). The issue of comprehensive reporting is elaborated upon in a later section of this paper.

Apart from the contents, it is also important to have clear principles that govern the budget (Section 24 of the draft PFM law). Currently, budget principles are dispersed across budget manuals and financial rules, and in some cases, not expressed explicitly at all. We propose that the following budget principles need to be consolidated and consistently followed:

• The Government should ensure that the budget is consistent with the fiscal responsibility principles and the Fiscal Strategy mentioned in the previous section, and any deviation should be explained in the budget itself.

- All public servants that have responsibilities related to preparing or approving the budget submissions should ensure that the submissions support the efficient, effective, and economical use of public resources.
- The budget should be prepared on a cash basis (for the time being, and subject to the eventual transition to accrual-based accounting as discussed in a later section), and all amounts that are expected to be actually received or paid during a financial year should be budgeted in that financial year, including arrears of previous financial years.
- Generally, the budget should present receipts and expenditures on a gross basis (IMF, 2019).
- Generally, receipts should not be assigned to specific types of expenditure.
- All appropriations should be authorised in the Appropriation Act and should be made for one financial year.

C. Performance- and Outcome-orientation

Fundamentally, annual budgeting in India remains an input-based incremental budgeting exercise. There is now an increased focus on linking the budget with performance in terms of outputs and outcomes, but these have largely remained academic exercises. The underlying enabling budget structures and processes have not been modernised towards this approach.

For instance, the departments of the Union Government have been preparing an "Outcome Budget" since 2005, and many States have since started preparing outcome budgets themselves. And yet, the main budget continues to be the same as in the past. The outcome budget is prepared separately and tabled in the legislature along with the main budget. This replaces the performance budget which was hitherto being prepared following the recommendation of the First Administrative Reforms Commission. Against each outlay, the expected outcome is identified, and sometimes indicators to measure the outcome as well as the targets are mentioned. There is no consistency in either the form or content of these documents between the Union and the States.

There are several issues with this practice, with the most significant one being that it is an offline ex-post exercise that does not result in the prioritisation of expenditure based on the desirability of the outcomes. Though termed 'budget', it is essentially not a budgeting exercise. If the desired objective of prioritisation of expenditure outlays is to be realised, then the expenditure must be aggregated around a larger or broader objective or a programme.

As noted by the Fifteenth Finance Commission (2020), "there is a misalignment between the annual budget exercise, medium-term planning, and outcome budgets." Outcomes, output indicators, and targets need to be defined and integrated into the budget documentation process at the Union as well as State levels. The focus of legislative oversight in this regard also needs to shift towards intended outcomes. To facilitate these changes, and to build outcome-based spending more generally, reforms will be needed to the underlying budget structures and processes.

The critical impediment has been the archaic chart of accounts⁵ which is completely at odds with the internationally followed good practices like the COFOG⁶ and the GFS Manual.⁷ India must move towards outcome-oriented budgeting. In consultation with the C&AG, the budget classification and chart of accounts need to be reformed in a manner that facilitates budgeting based on programmes and their expected outcomes. Currently, legislative appropriation is done at the lowest unit of

classification which is object-head level. This makes it difficult to make mid-year corrections and reappropriations leading to inefficient utilisation of the budget. It should be changed to programme-level instead of the current 'object head' level appropriations. (Section 26 of the draft PFM law).

Moreover, programme managers across the different tiers of government⁸ in India presently have very little flexibility in the use of budgetary funds. They lack the freedom to move funds from one head to another within the same program, as re-appropriation of funds is permitted only between one primary unit of appropriation (the lowest level of "object head" in the chart of accounts) and with the permission of the Finance Department/Ministry. Instead, programme managers should be afforded the flexibility and discretion to move funds within the programme based on needs and within predefined rules (Section 38 of the draft PFM law).

D. Supplementary grants and rush of expenditure

The Constitution enables the Legislature to approve supplementary grants during the course of the year, to provide funds where there is a requirement for additional funds for an existing scheme, or for new services or new instruments of service (Articles 115 and 205).

Such grants are expected to be few and far in between, so that the sanctity and integrity of the original budget remains intact. However, in the absence of any limits in terms of the frequency and volume of such supplementary estimates, presentation of several supplementary estimates has become quite common. There is thus a need to restrict supplementary estimates, ideally to no more than two in a financial year. Additionally, the finance minister should be required to disclose the impact of such additional expenditure or financing on the performance of the Government against the fiscal objectives contained in the Fiscal Strategy (Section 29 of the draft PFM law).

One major concern in expenditure management has been unproductive expenditure in the last month of the financial year, mainly to avoid budgetary allocations from lapsing. The present system of appropriations lapsing at the end of each financial year encourages undesirable practices such as rush of expenditure at the year-end, involving procurement of unwanted and unnecessary items that may result in lower quality of public expenditure; transfer of funds from the Consolidated Fund to either the Public Account, or parking them outside.

There is a distortion in accounts, as cheques are drawn but not issued to vendors. This also results in an indeterminate cash liability, as no record of such withdrawal is maintained in the books of accounts. These practices are a legacy from the past and need to be phased out. International experience is clear that the annuality of the budget is a crucial principle and should not be distorted. In summary, the accounts should close at year-end, with payments authorised only for commitments made and goods or services delivered before year-end.⁹

E. Facilitating participation

Finally, governments should also endeavour to make the budgetary exercise a more participatory one (Section 22(7) of the draft PFM law). As recommended by the Organisation for Economic Cooperation and Development (OECD, 2015b), governments need to ensure that "budget documents and data are open, transparent, and accessible." Budget reports need to be published fully, promptly, and routinely, in a manner that is widely and easily accessible.

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Governments could prepare a simplified summary of the budget, which would be more accessible to the common citizen, and make it available on the government website soon after the presentation of budget (Section 28(c) of the draft PFM law; IMF, 2019). This should help in providing for an "inclusive, participative, and realistic debate on budgetary choices", and governments should additionally facilitate engagement by legislatures, citizens, civil society organisations, and other stakeholders in realistic debates about priorities, trade-offs, and opportunity costs (OECD, 2015b).

IV Financial Management

A. Debt Management

Achieving and maintaining a prudent level of public debt is a fundamental fiscal responsibility principle.¹⁰ In addition to the Union and State FRBM Acts, the current regulations and practices in debt management in India stem from the Public Debt Act, 1944 (which focuses on government securities and management of public debt by the central bank), and the Government Guarantee Policy of 2010, with operational details contained in the Government Financial Rules, 2017. However, to truly operationalise this principle, there needs to be a comprehensive and consolidated framework for the determination, approval, and risk management of public debt.

In particular, principles need to be established for the issue of government guarantees to PSEs and other parastatals (Sections 64-67 of the draft PFM law). Some of the borrowings by parastatals become contingent liabilities of the government, thereby exerting pressure on the government's debt sustainability levels. To increase transparency in debt reporting, governments should be required to disclose all the guarantees that they have given. With respect to parastatals, debt includes not only guarantees but specifically also their off-budget borrowings.

While the FRBM Acts (at the Union, and in some States) have amended the definition of debt to include the above understanding, other States still have to incorporate this change. Such borrowings need to be brought explicitly into the overall debt of the government, depending on the relationship of the entity with the government.

To accurately capture the full picture, public debt should be defined as the total outstanding liabilities of the Government on the security of the Consolidated Fund, including external debt, the total outstanding liabilities in the Public Account, and such financial liabilities of any body corporate or other entity owned or controlled by the Government, which the Government is to repay or service from the Annual Budget (as made clear in the Union FRBM Act after its amendment in 2018) (Section 2(ee) of the draft PFM law).

Effective public debt management is financing of government's spending and payment obligations at the lowest possible cost and with prudent degree of risk. For effective debt management, it might be helpful if governments prepare a Medium-Term Debt Management Strategy (MTDMS) as part of their Annual Budget documentation (Section 56 of the draft PFM law). The MTDMS framework typically comprises a methodology and an analytical tool aimed at facilitating prudent debt management. It can help governments to formulate, adjust, and effectively implement their debt management strategy (World Bank & IMF, 2017).

While the Reserve Bank of India had issued a debt management strategy for 2015-2018, it was not laid before Parliament. No State Government prepares such a document. An MTDMS could be a first step in liability management and can appraise the Government's performance on public debt, reassesses debt sustainability conditions, and continue to guide debt policy over the medium term.

The MTDMS can serve as an annual performance evaluation of government debt management activities, besides having development aspects. These development aspects can include guidelines and specified targets for the composition of the Government's debt portfolio and new debt, to ensure that the risks in the portfolio remain at acceptable levels. It can also include planned measures to support a functioning domestic market for government securities, and policies and guidelines for lending and the issuance of debt guarantees.

The MTDMS should be prepared within the fiscal responsibility principles mentioned previously, and with the Fiscal Strategy. In many countries, the broader coverage provided by the MTDMS was crucial in identifying the true extent and trajectory of vulnerabilities by capturing and highlighting debt management issues linked to PSEs (World Bank & IMF, 2017).

As the economy and operations of a country get increasingly integrated and intertwined with the international economy, risks increase and there are opportunities to reduce the cost of government operations, particularly public debt. The overall objectives of debt portfolio management operations should be to meet the government's financing needs, make payment obligations, ensure lowest possible costs over the medium- to long-term, and maintain prudent level of risks. Modern day practices such as derivatives and hedging can help in achieving these objectives and can be a part of good debt portfolio management practices (Sections 61 & 62 of draft PFM law):

• <u>Derivatives</u> - Derivatives are complex financial instruments and include swaps, futures contract, options, foreign currency contracts, and forward agreements. The Union finance minister could be empowered to enter derivatives which are authorised by the Cabinet, in consideration of the risks involved and the public interest. The ultimate objective is to lower the cost of public debt by anticipating interest and/or foreign exchange movements or manage the average maturity of public debt, particularly when exposed to foreign markets.

Derivatives have long been used in the private sector, but are now increasingly being introduced in government operations. However, in the context of public debt, they should be used sensibly, responsively, and transparently. New Zealand and Sweden are examples of sovereign borrowers that frequently use derivatives, and other examples include Ireland, Denmark, and Australia. In Sweden, active debt management is achieved by separating decisions on funding and characteristics of the debt portfolio. Sweden's National Debt Office seeks low-cost funding, irrespective of the currency or maturity, and then transforms the cash flows using derivatives.

• <u>Hedging</u> - India's composition of public debt comprises a significant portion of external debt, and hence risk management of this external debt assumes significance. Hedging may be a good option for countries whose debt portfolios have a significant proportion of foreign currencies, given their exchange risk exposures. India too can consider entering into hedging¹¹ transactions or arrangements for avoiding or reducing the effect of currency or

interest rate fluctuations. Such transactions or arrangements should, however, be consistent with the aforesaid MTDMS.

The importance of strictly controlling and monitoring sovereign guarantees was mentioned, earlier. Razlog, Irwin, and Morrison (2020) suggest a checklist of ideas to improve management of government guarantees. They note that legislating binding limits on guarantees and centralising the authority to grant guarantees can help in controlling them. In some countries, such as Austria, the legislature has specified that only the finance minister can issue guarantees. It may also be useful to frame guidelines and restrictions for the issuance of guarantees, such as specifying the circumstances in which they may be issued. Once a guarantee is issued, they must also be effectively recorded, reported, and monitored (Razlog, Irwin, & Morrison, 2020).

In India, provisions relating to guarantees are currently provided in the Government Guarantee Policy of 2010, with operational details in the Government Financial Rules, 2017, and in some Statelevel fiscal responsibility and other legislations. In addition to these, guarantees should comply with the fiscal responsibility principles mentioned earlier, the MTDMS, and be subject to risk-assessment.

The sole authority for issuing guarantees should be vested in the finance minister, and the government should not be liable to pay any liability under a guarantee unless it is a formal guarantee (Sections 64 & 65 of the draft PFM law). In other words, documents such as "letter of comfort" or a communication conveying the intent of the government should not be considered as guarantees under any circumstances.

All debt recording and reporting needs to be formalised, such that all loans taken or guarantees given are required to be disclosed in the Annual Accounts of the government (Section 67 of the draft PFM law). While this is currently being followed both at the Union and State levels, and disclosures are made in the Finance Accounts and in the Annual Budget documentation, there is merit in making this a mandatory requirement.

Additionally, a quarterly report on public debt should be presented to the Cabinet, summarising the debt operations during the reporting quarter. While this is being currently followed at the Union level, there is a need to make this a mandatory requirement at the State level too. The Finance Ministry/Department should be vested with the formal responsibility for debt recording, including recording information on principal, terms of payment, drawls, interest and other charges, repayment of principal and payment of interest, alteration of the terms, and outstanding balance. Lastly, parastatals should also be vested with the responsibility of maintaining debt records and submitting periodical reports to their concerned administrative ministry/department.

B. Commitment Control

It is critical to implement commitment control as part of the overall budget control framework (Section 37 of the draft PFM law). In India, excess levels of commitments plague government finances and result either in expenditure payment arrears or resources being thinly spread over large items. Commitment typically is a guarantee given by the government to any entity for raising a loan/debt from the market. In case of loan default by the borrowing entity, it becomes a financial liability to the government, including in the case of PPPs.

Public servants need to be given certain responsibilities that can serve as checks and balances, prior to their taking action that results in committing the government to a financial liability. They should only commit the Government to financial liability if they are expressly authorised to do so; the commitment should not exceed the approved amount and should follow all relevant procedures; and they must maintain a proper record of all commitments, linked to appropriation and expenditure line.

Additionally, multi-year commitments should be consistent with the fiscal responsibility principles reflected in the Fiscal Strategy, be approved by the finance minister, and should be within the expenditure limits set in the approved budget. The Government should specify limits on financial commitments and provide guidelines to link public investments to multi-year commitments.

Moreover, commitments should be included in the fiscal forecasts, financial reporting, and annual accounts of the Government. This transparency is facilitated through accrual accounting, which is presently not followed in India. Multi-year commitments should be included in the Annual Budget at least, so that appropriate expenditure limits may be set. Further, a statement of commitment would be included in the annual accounts of the government, which will help in assessing fiscal risks arising out of commitments (Section 78 of the draft PFM law). This would be facilitated if governments implement an ICT application that includes a dynamic database of commitments.

C. Internal Audit

The internal audit system in government needs to be institutionalised. Internal audit in government at the Union-level is spearheaded by the Controller General of Accounts (CGA). While there are operational guidelines regarding this vital function in chapter 12 of the Civil Accounts Manual of the Union Government, they are not legally binding at the moment.

The current system includes a decentralised internal audit institutional structure that has been implemented under the Chief Controller of Accounts of each Ministry reporting to the Financial Adviser, under the overall responsibility of the relevant Secretary. The CGA has brought out a Generic Internal Audit Manual and some instructions that are followed by the Ministries. On the other hand, internal audit function in the States follow different institutional structures and practices with a few States having their own audit legislations. Some States are pursuing reforms that aim to strengthen their internal audit mechanisms.

Thus, while a system of sorts does exist, there remains ample scope to strengthen it. By and large, the coverage and effectiveness of the internal audit function in the country needs to be enhanced by adopting the contemporary approach to audit based on risk assessment, establishing auditing standards, and defining the scope and ensuring executive compliance to the internal audit function. Internal audit should have a focus on providing assurance to the Secretary of the auditee-department that operations are being carried out economically, efficiently, and in compliance with applicable laws. It should also be able to provide professional and impartial opinion and advise on systems of risk management, control, and governance.

Specifically, annual internal audit reports that include organisational structure, work done, and major findings, should be published along with risk-based internal audit plans. The CGA should develop standards and guidelines for effective internal audit under the direction of the Finance Secretary, and these can be adopted by Finance Secretaries at the State level too. These standards and guidelines should be published. The scope of internal audit should include an assessment of the risk management, control, and governance process, including:

- whether risks are appropriately identified and managed;
- whether public money and assets are adequately safeguarded and used as intended;
- whether financial and operating information is accurate, complete, reliable, and timely;
- whether ethical standards and values are established and followed;
- whether all applicable laws, policies, and procedures are complied with; and
- whether resources are applied to achieve the strategic objectives of the Government (Section 71 of the draft PFM law).

While the departmental secretaries should have the primary responsibility for ensuring compliance, the finance minister should also set up internal audit committees at various levels of government to provide oversight over compliance (Section 72 of the draft PFM law).

V. Reporting and Accounting

All governments should produce annual financial statements based on internationally-recognised reporting and accounting standards. This is important for accountability, transparency, and decision-making. Article 150 of the Constitution provides that the accounts of the Union and State Governments would be kept in such form as may be prescribed by the President, on the advice of the C&AG.

This function is exercised by the CGA, on behalf of the President, and the CGA thus has to prescribe the form of accounts of the Union and States, and to frame or revise the related rules and manuals in consultation with the C&AG. The procedures for reporting and accounting are primarily contained in the GFR and the GAR. The C&AG (Duties, Powers and Conditions of Service) Act, 1971 also has provisions relating to financial reporting and accounting.

The annual accounts of the Union Government comprise the Appropriation Account and the Finance Accounts. The former is prepared by each Ministry and shared with the CGA for consolidation, and the latter is prepared by the CGA. While at the Union level, the responsibility for accounting of government transactions vests with the CGA, at the State level, accounting is done by the Finance Department through the Treasuries. These accounts are then supplemented and compiled by the State Accountant General (A&E) to produce the monthly accounts and the annual accounts comprising the Finance Accounts and Appropriation Accounts.

Annual financial statements of the governments at the Union and State levels in India are produced primarily based on the cash-based accounting system. The Union Government constituted the Government Accounting Standards Advisory Board (GASAB) in 2002 to act as an advisory body under the C&AG.

GASAB's objective is to formulate standards relating to accounting and financial reporting by the Union and the States. It works on two sets of accounting standards, based on cash and accrual basis of accounting, and standards formulated by it are recommended to the Union Government for notification.¹² These standards, however, are not consistent with international accounting standards

such as the International Public Sector Accounting Standards (IPSAS), which is issued by the International Federation of Accountants.

In India, financial reporting needs to be strengthened in two key areas: one, enhancing the contents of the government's annual financial statements; and two, mandating the setting of government accounting standards in line with international standards.

A. Enhanced reporting

There needs to be a comprehensive and consolidated system of government reporting, including components such as:

- a consolidated quarterly report that covers the government's financial performance, covering all public entities against the Annual Budget and the Appropriation Act;
- a mid-year review report that sets out the progress against the Fiscal Strategy and the Annual Budget;
- annual accounts comprising the finance and appropriation accounts;
- an annual report; and
- simplified summaries of the Annual Budget and reports (Sections 76, 77 read with the Fourth Schedule, 78, 80, & 83 of the draft PFM law).

The mid-year review report should specifically present the progress, achievements, and challenges of the government in budget execution during the first six months of the fiscal year, including important developments and an updated fiscal outlook including items such as revenue outturn and budget balance. This would help in informing all stakeholders, including elected representatives and citizens, of the progress in the use of public resources and implementation of plans. It should contain updated macro-economic forecasts, progress on government priorities, information on reallocations, matters such as divestments, major PPP contracts, and tax arrears and reliefs.

Currently in India, Ministries and Departments at the Union and State levels produce Annual Administrative Reports containing information regarding their mandate, achievements made during the year, their future plans, budgetary achievement, and staffing. These are then tabled in Parliament or the Legislative Assembly, as the case may be. However, in practice, these reports are often delayed.

The practice of preparation and submission of Annual Financial Reports by the governments is internationally recognised, and prevalent in countries such as the United States of America and South Africa. There is a need to mandate and institutionalise this practice, at the levels of individual Ministries and Departments, as well as the Union and State Governments, to capture the whole of government. Moreover, minimum contents for these reports should be specified. It should contain the government's views on major activities during the year, and its commentary on revenue, expenditure, budget balance, borrowings, and so on. To some extent, this is discussed in the budget speech, but the practice and extent of the discussion differs *inter se* between governments.

In addition to these components of reporting, clear timelines are needed for the production of accounts, completion of audit (Section 79 of the draft PFM law), and tabling before the legislature. Presently, these matters are frequently delayed and there is no system of informing the legislature of the reasons for the delays and the action proposed to be taken. Beyond clear timelines, the finance minister should have to explain delays in the legislature, and in the case of delays in auditing the

Annual Accounts, the C&AG should submit an explanatory memorandum to the Legislature (Section 81 of the draft PFM law).

B. Accounting Standards

Several countries have established accounting standards in their financial reporting framework, based on the IPSAS. IPSAS aims to "improve the quality of general purpose financial reporting by public sector entities, leading to better informed assessments of the resource allocation decisions made by governments, thereby increasing transparency and accountability" (Ahmad & Nassereddine, 2020). Adoption of IPSAS is expected to enhance financial accountability in the government and improve the quality of available information, on the basis of which governments can make better informed decisions and improve service delivery. IPSAS is a benchmark for evaluating and improving government accounting (Kasoma, 2018).¹³

For example, in New Zealand, the External Reporting Board or XRB, an independent body set up by the government, is responsible for developing and issuing accounting standards in the country. It has delegated its authority regarding accounting standards to the New Zealand Accounting Standards Board or NZASB, and the standards differ based on the sector in which the reporting organisation operates (for-profit, not-for-profit, or public sector). From 2014 onwards, for public sector entities, New Zealand moved the basis of its accounting standards to IPSAS.

While, as aforesaid, the GASAB currently formulates accounting standards in India, there is a need to change the present approach for implementing standards-based accounting. Rather than drafting new accounting standards, India could consider adopting cash-based IPSAS with minor adjustments for Indian systems. That way, it can spare more time and resources for the implementation of standards.

The standards-setting body should also have powers to notify its standards after adequate stakeholder consultations. Apart from being set and notified by an independent body, the accounting standards should be implemented progressively, including the transition from cash-based to accrual-based accounting. They should also be uniformly applicable to government accounts at the Union as well as State levels, and should be duly notified and made publicly available.

The annual accounts of the government should be prepared in accordance with these notified standards. In case any delay or temporary deviation from the accounting standards are required, their details should be clearly specified in the published standards (Section 73 of the draft PFM law).

VI. Legislative and Executive oversight

A. Legislative oversight of the Executive

Legislatures play a crucial oversight role in PFM. Through increasing transparency and accountability, legislative oversight can, in theory, contribute to better resource allocation and use of scarce public resources. This responsibility is indispensable, ensuring, among other things, that all public money is accounted for, public expenditure is properly incurred, and conditions on the use

and appropriations of public money imposed by the Constitution or the Legislature are duly respected.

The role of the Legislature, therefore, is to supervise the use of public resources and prevent corruption. Legislative oversight, in addition to being an important institutional check and balance on the executive, leads to greater transparency and oversight by civil society as well. This is because documents placed before the Legislature become public documents, available to all.

In India, while there are constitutional provisions regarding legislative oversight of certain broad aspects of PFM, there remains considerable scope to strengthen and enhance this function. Legislative oversight measures exercised in India include debates and review by legislative committees. The legislature should be adequately empowered to approve the Annual Budget and the supplementary estimates, authorise to borrow and invest in public entities, and review audit reports.

For legislative oversight to be effective, there first needs to be an effective system of reporting by the executive, as covered in the preceding section. The existing system in India requires the executive to table specific reports before the legislature, including performance reports and audit reports. The FRBM Acts also contain some requirements in this regard.

As mentioned previously (in the section on fiscal responsibility), there is a need to bolster these requirements, and the government should table a range of ex-ante strategies and plans in the legislature including an investment statement, a financial asset management strategy, a liability/debt management strategy, and a PIP.

The current framework casts responsibility on the government to provide ex-post reports for legislative oversight such as actual spending to budget approvals. As argued in this paper, the ex-post reporting framework should also be strengthened by introducing certain additional responsibilities for the executive, to supplement the FRBM Acts. The discussion in the fiscal responsibility section of this paper regarding the need to report deviations from fiscal objectives to the legislature, and the review role that can be played by the C&AG (for the time being), are also relevant for increasing legislative oversight.

B. Executive oversight of Public Sector Enterprises and other government bodies

Beyond legislative oversight of the executive, executive oversight of PSEs and other government bodies that are owned, controlled, or managed by the government also needs to be bolstered. PSEs and government bodies in India, both at the Union and State levels, are large entities that play an important part in the delivery of goods and services. They play a major role in the economy in many sectors, ranging from infrastructure, energy, and transport, to banking, insurance, and manufacturing.

The activities of these bodies often create fiscal risks for their governments, including contingent liabilities, accentuated by serious gaps in timely and adequate reporting of financial information. Even though the Companies Act, 2013 or the specific statutes under which certain PSEs are established have robust accountability and financial reporting provisions, their implementation, particularly at the sub-national level, leaves much to be desired. In case of other bodies, such as those incorporated under the Societies Registration Act, 1860, the situation is much worse, characterised by incomplete and inadequate financial information.

This ultimately results in poor oversight. Financial reporting by PSEs under the Union Government is quite strong, but there are significant gaps when it comes to State-level bodies, where the consistency, uniformity, and reliability of information needs considerable improvement. This creates gaps in timely reporting of liabilities, improperly-informed policy decisions, and delayed reforms in the sector.

While the Department of Public Enterprises in the Union Ministry of Heavy Industries and Public Enterprises has some oversight role and collects information, such a central body is generally lacking at the State level. In cases where such a body exists (such as a Bureau of Public Enterprises), it tends to be non-operative and/or lacks statutory authority. This points to the importance of extending such arrangements at the State-level as well.

The OECD Guidelines on Corporate Governance of State-Owned Enterprises (SOEs) provide that, "The state should act as an informed and active owner, ensuring that the governance of SOEs is carried out in a transparent and accountable manner, with a high degree of professionalism and effectiveness" (OECD, 2015a). They further elaborate that to perform such a role, the State should set and monitor the implementation of broad mandates and objectives for SOEs, reporting systems that enable regular monitoring, auditing, and assessment of SOE performance, and mechanisms for ensuring quality of information provided by SOEs (OECD, 2015a).

In pursuance of these guidelines, Germany's Federal Ministry of Finance implemented a standardised monitoring system for State-owned small- and medium-sized enterprises. This monitoring system was designed with the objective of providing government authorities with an analysis and alert tool that could highlight potential financial risks associated with such enterprises (OECD, 2020).

Presently, in India, such bodies come under the purview of their respective administrative Ministries and the Finance Ministry.

- Administrative Ministries need to proactively and effectively monitor the fiscal risks of PSEs under their purview, and to facilitate this, PSEs should be required to report, ex-ante and expost, matters such as the preparation of corporate intent and annual plans, and mid-year and end-year reporting on actual performance (Section 90 of the draft PFM law).
- They should be allowed to borrow only in accordance with their approved annual plans, and they should additionally provide periodic debt reports to their respective administrative Ministry for monitoring and oversight (Section 96 of the draft PFM law).
- Their annual plans should include strategic priorities, changes from the previous plan, outputs planned to be achieved, expected government contributions, human resource development, a statement of fiscal risks, and a budget (Section 89 of the draft PFM law).

This should be a mandatory requirement, as presently, while some PSEs and government bodies do prepare annual plans, most do not. More generally, there is a need for a comprehensive framework of control and oversight, covering both financial management as well as fiscal risks (Section 88 of the draft PFM law).

The responsibilities of the Finance Ministry and the administrative Ministry, vis-à-vis PSEs and other government bodies, need to be clearly defined (Sections 85 & 86 of the draft PFM law).

- The finance minister should be responsible for approving loans and guarantees to be provided by the government and major financing and investment proposals, monitoring financial performance and risks, and enforcing the expectations of the government.
- The Minister of the concerned administrative Ministry, on the other hand, should have the • power to issue relevant directions to the Board of such bodies,¹⁴ conduct performance reviews (Sections 87 & 91 of the draft PFM law), and fulfil the responsibilities that arise from the shareholding or ownership roles.
- The minister of the administrative Ministry should also be responsible to the legislature for the performance of the bodies under their purview on matters relevant to PFM.

There should also be certain principles and procedures that are applicable at the time of formation of such government bodies. For instance, in order to establish such a body, a due diligence process must be followed that requires the relevant administrative Ministry to consult the Finance Ministry and present a report to the Cabinet on the need, costs, benefits, and fiscal risks over the long term, in case such a body is established (Section 84 of the draft PFM law).

VII. Conclusion and way forward

As argued in this paper, India needs to improve its PFM system in a comprehensive, integrated, and consistent manner, at the earliest. The case for PFM reform has only become stronger in light of the disruptions and strains caused by the COVID-19 pandemic and its continuing effects, which have highlighted and exacerbated existing fault lines in national fiscal architectures around the world. The pandemic has also illustrated the importance of building resilient public finance frameworks that can effectively manage and mitigate future crises.

A strong PFM framework, built on learnings from international experience and best practices as highlighted in this paper, will also help in enhancing accountability and transparency, and ultimately contribute to improving governance. As India emerges from the pandemic, PFM reforms at the Union and State levels are also essential for improving its human capital outcomes (Dahiya et al., 2021).

This paper complements the Fifteenth Finance Commission's (2020) recommendations regarding building India's fiscal architecture for the 21st century, and specifically, the key elements of PFM reforms that it identified. The paper addresses various aspects of India's PFM architecture ranging from fiscal responsibility, budgeting, financial management, reporting and accounting, and oversight, drawing extensively from global best practices.

Based on this study and analysis, and elaborating upon the provisions contained in a draft PFM law prepared by an expert group and cited by the Fifteenth Finance Commission (2020), several recommendations have been suggested for each of these areas (Alamuru & Vidhi Centre for Legal Policy, 2020). This draft legal framework also incorporates the principles-based fiscal responsibility paradigm, as argued in this paper.

Around the world, countries are enacting overarching, comprehensive, and modern legislative frameworks for PFM, along the lines of the draft PFM law discussed in this paper. This approach is emerging as a preferred means for implementing PFM reforms, and examples of countries that have

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enacted such laws include large, emerging markets such as Indonesia and South Africa, as well as advanced countries such as Canada, Australia, and the United Kingdom.

For these reforms to be effective, they need to be implemented at the Union as well as State levels, with careful integration and coordination. Future research can look at how some of these PFM reforms may be appropriately extended to the level of India's third tier as well, comprising panchayats and municipalities.

While the need for these reforms is urgent, it would still be advisable, and perhaps practical, to proceed in an incremental and sequenced manner. As recommended by the Fifteenth Finance Commission (2020), the Union Ministry of Finance is best-placed to take the lead in conducting extensive and wide-ranging stakeholder consultations, bringing together State Finance Departments, the C&AG and its subordinate State Accountant Generals, the CGA, the Reserve Bank of India, and research bodies and civil society organisations that work in the area of PFM. These consultations could also be carried out through existing institutional fora such as the Inter-State Council or the NITI Aayog's governing council.

Once the Union and State Governments begin to reform their PFM systems, important learnings from their individual experiences should be widely shared, discussed, and benchmarked. Given the nature and scope of the suggested reforms, a long-term implementation strategy should be developed, and it should be designed and executed in the spirit of deliberation, inclusiveness, consensus, and transparency.

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Notes

¹ The Government of India's Civil Accounts Manual, which supplements the R&P rules, does incorporate process changes that were brought out in pursuance of adopting ICT systems and electronic transactions.

² Under New Zealand's Public Finance Act, 1989, the government's fiscal policy needs to comply with certain specified principles of responsible fiscal management. In contrast to legislated numerical fiscal rules, the New Zealand government has to articulate how its fiscal strategy is consistent with these principles, including by self-setting measurable, numerical fiscal objectives in the strategy document. This approach has been successful, as governments are more likely to achieve principles-based fiscal objectives that they have determined and set for themselves, as opposed to legislatively stipulated numerical rules (Parkyn, 2019). For India to move towards this framework, changes would be needed in its existing FRBM laws and rules.

³ For a discussion on fiscal councils, see Singh, Patel, and James (2021).

⁴ It should be noted that even after an independent fiscal institution is established, the C&AG's role would remain critical, given its constitutional authority and mandate to provide a true and fair view of accounts (among other responsibilities in constitutional and statutory compliance matters).

⁵ There have been attempts in the past to revise the List of Major and Minor Heads (India's chart of accounts applicable to both the Union and State Governments). The Sundaramurti Committee's report made recommendations towards amending the economic segment of the chart of accounts to ensure compliance with the IMF's Government Financial Statistics Manual (CGA, 2016). The CGA was in the process of updating the chart of accounts as proposed by this report, but these changes have not been implemented yet.

⁶ Classification of the Functions of Government, issued by the United Nations (2000) and developed by OECD. It provides a classification of functions of government (Major Heads in the Indian context).

⁷ The Government Financial Statistical Manual, issued by the IMF (2014), provides guidance for economic (Object Head) classification.

⁸ LMMH follows functional 6-tier classification where Programmes/Schemes are depicted at Minor Head level or below. Person authorized to operate these heads could be identified as Programme/Scheme manager. ⁹ Another concern in expenditure management is that unauthorised excess expenditure, such as on salaries and pensions, often remain without regularisation for years. It should be ensured that these are consistently regularised through a demand for excess grant in the new financial year (Section 31 of the draft PFM law).

¹⁰ It is difficult to numerically define the level of prudent debt, since there is no one level of debt that could always and universally be considered prudent. What is prudent is influenced by the prevailing economic conditions, vulnerability to shocks, demographic changes, cost of debt servicing, and other factors. As these are likely to change over time, the prudent debt level will also undergo changes.

¹¹ Hedging is a risk management strategy employed to offset losses in investments by taking an opposite position in a related asset. It is like an insurance against occurrence of unfavorable events.

¹² Since 2002, GASAB has developed six accounting standards on cash basis of accounting (called the Indian Government Accounting Standards or IGAS), of which three have been notified by the Union Government; and five accounting standards on accrual basis of accounting (called the Indian Government Financial Reporting Framework or IGFRS), none of which have been notified by the Union Government as on date.

¹³ There are three ways in which the IPSAS can be implemented:

(i) directly implementing IPSAS without altering any requirements;

(ii) indirectly implementing IPSAS through a national endorsement process that adjusts for any local features; and

(iii) developing national standards using IPSAS as a reference point. IPSAS are available both for cash and accrual basis of accounting.

¹⁴ The scope of the power to issue such directions should be appropriately defined and limited, to ensure a balance between oversight and non-interference.



Outcome of FPTP in a Diversified Society: Evidence on Disproportionality from Lok Sabha Constituencies

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Abstract

Democracy across the world has witnessed the evolution of the electoral system. The First-past-the-post (FPTP) system practiced in India has certain disadvantages, such as disproportional representation. This paper analyses the election outcome in FPTP electoral system in a diverse society like India using constituency-level information for the Lok Sabha election. I examine how social diversity, religious diversity, and fractionalization affect the outcome in the FPTP system. The fractionalization index for religious diversity, polarization index for religious polarization, and Herfindahl-Hirschman Index for vote concentration are formed for Lok Sabha constituencies to understand the impact of diversity on vote concentration as well as vote share of winning candidates. Further regression analysis is done where state-specific and timespecific effects are controlled. It is found that fractionalization i.e. religious diversity affects the vote concentration negatively. It is also found that on average the vote concentration for SC/ST reserved constituencies is lower than general constituencies. This suggests that religious diversity reduces the vote concentration which further leads to disproportionality. It is important to think of ways to provide the space for the parties which are getting votes but not getting seats in Lok Sabha, especially for reserved constituencies.

Keywords: Religious Polarization, Electoral System, Religious Fractionalization, Vote Concentration

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1. INTRODUCTION

The role of social and religious polarization on development is widely discussed. Banerjee (1997) and Banerjee and Pande (2007) suggest that ethnic polarization affects the efficiency of democratic systems, through inefficient politicians winning elections because of caste affiliations. On the other hand, Alesina, et.al. (1999), Bardhan and Mukherjee (2012), and Afridi, Iversen and Sharan (2016) suggest that polarization affects development, through a decline in investments in local public goods. Banerjee and Somanathan (2007) also argue that access to public goods is adversely affected by religious fragmentation.

Polarization and fragmentation also play an important role in election outcomes. Recent works by Hansen (2001), Shah (2007), and Banerjee (2007) aim to understand the association between religious nationalism, caste, and politics at the local level. In this study, I have tried to understand the role of religious polarization and diversity in the determining the outcome of Lok Sabha elections.

India follows the First-past-the-post (FPTP) system. FPTP is viewed as the simplest form of the electoral system, as each voter can give one vote and the candidate with the highest number of votes wins – even without necessarily having the absolute majority in the constituency.

FPTP has certain disadvantages.

- FPTP favours large parties, and can exclude the small and regional parties, which mean the FPTP system tends to create a scenario where a single party forms the government¹. By contrast, proportional representation (PR) leads to a multiparty system.
- FPTP also creates a discrepancy in the vote share obtained by the parties and the share of seats they win in the legislature. Voters may not vote for their most preferred candidate in an FPTP system, to avoid 'wastage' of their vote (Monroe, 1995). This creates a problem for small parties.

As far as Indian democracy is concerned, even though the FPTP system is implemented, small and regional parties are established and have survived. Indian democracy, however, does witness the discrepancy in vote share and seat share.

Duverger (1963) suggests that

- 1. Proportional representation tends to lead to the formation of many independent parties,
- 2. The two-ballot majority system tends to lead to the formation of many parties that are allied with each other,
- 3. The plurality rule² tends to produce a two-party system.

India, contrary to this theory, has multiparty system with high level of disproportionality, and a clearly dominant party after votes are converted into seats (Sartori, 1986; Chhibber and Murali, 2006).

Figure 1 suggests that the number of political parties is increasing rapidly over a period of time. With coalition and alliances, the number of parties forming the government is also increasing. Even under an FPTP system, a multiparty structure is developing. Chhibber and Murali (2006) find that 'Duverger's law' gets violated in states like Bihar and Uttar Pradesh, whereas in the Southern states, the situation is close to Duverger's law. Chandra (2007) suggests that ethnic identity can be a reason for high number of parties in Uttar Pradesh which violates the Duverger's law. The geographicallyconcentrated minority parties can also play an important role in explaining this trend.



Data Source: Election Results, Full Statistical Reports, the Election Commission of India (https://eci.gov.in/statistical-report/statistical-reports/)

Figure No. 2 shows the trends for Gallagher Index. Gallagher (1991) proposed the disproportionality index, also known as the Gallagher Index, which measures the disproportionality between the seats won by the party and votes received by the party. It is calculated as:

Gallagher Index =
$$\left(\frac{1}{2}\sum_{i=1}^{n}(v_i - s_i)^2\right)^{\frac{1}{2}}$$

where v_i and s_i are percentage of vote and seat obtained by the ith party.

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Figure 2: Disproportionality for Indian Lok Sabha Election

Data Source: Author uses the data from Election Results, Full Statistical Reports, the Election Commission of India (<u>https://eci.gov.in/statistical-report/statistical-reports/</u>) to calculate the Gallagher Index to measure the disproportionality.

The higher the Gallagher index, higher will be the disproportionality, which means the parties winning higher seats are actually receiving fewer votes. Therefore, the government formed by these parties can be viewed as relatively less representative.

The Canadian Parliament's Special Committee on Electoral Reform has suggested that, for Canada, the Gallagher Index should be 5 or lower. This Committee also recommends the government take efforts to reduce the Gallagher Index, so that more efficient (i.e., inclusive) representation can be brought into politics.

For India, the Gallagher Index is higher than 5. Tillin (2015) also finds disproportionality in the national election results. The Law Commission of India's 2015 report on electoral reforms similarly highlights the disproportionality; they find that even if the FPTP system supports a single major party, the government can't uphold majoritarianism in a multiparty system because a candidate who receives around 20-30% of the votes cast in their constituency can manage to win3.

The Report of the Committee on Electoral Reforms (1990) saw disagreement among the member regarding the continuation of the FPTP system, precisely due to the issue of disproportionality4. Mishra (2018) suggests that elected representatives, as they receive fewer than 50% of the votes cast in their constituencies do not represent the majority of the population.

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2. Data and methodology

To understand why disproportionality exists, a constituency-level analysis is required. In this study, I have tried to understand how religious polarization and diversity are affecting the election outcome.

Easterly and Levine (1997), Collier and Hoffler (2004), and Miguel, Satyanath and Sergenti (2004) use the fractionalization index⁵ to identify social diversity. For polarization, Esteban and Ray (1994) and Wolfson (1994) propose the polarization index. The fractionalization index and polarization index have been used to measure social diversity and political polarization in the society respectively. In this work, the polarization index proposed by Montalvo and Reynal-Querol (2005) is used; this is also known as Reynal-Querol index (Reynal-Querol, 2002).

Both indices range from 0 to 1. More the fractionalization index, more the diversity in society. In other words, a higher fractionalization index suggests that there is a larger number of social groups in that society. Polarisation is a measure of the relative size of those groups, where a higher polarization index suggests that one group among all social groups tends to have more representation in the society, i.e. that one social group dominates others in terms of population share.

- a. Fractionalization Index = $1 \sum_{i=1}^{n} ($ Share of ith religion in total population $)^{2}$
- b. Polarization Index = $1 \sum_{i=1}^{n} \left(\left(\frac{0.5 \text{Share of } i^{\text{th}} \text{religion in total population}}{0.5} \right)^2 *$

Share of i^{th} religion in total population)

There are two challenges encountered while calculating the fractionalization and polarization indices.

- 1. The first challenge is predicting the population for election years, as census year (1991, 2001, 2011) and elections years (1991, 1996, 1998, 1999, 2004, 2009) are different. To predict the population for every religious group at district level, the growth rate for each such group at district level is calculated based on census data, based on which the population is predicted for election years.
- 2. The second challenge is matching the district information with Lok Sabha constituencies. In many cases, the district itself is a Lok Sabha constituency; however, one district may have more than one Lok Sabha constituency, or one Lok Sabha constituency may be shared by more than one district. In the first case, where one district has more than one Lok Sabha constituency, the district-level population is divided into the constituencies proportional to the valid votes of the constituencies. In the second case, where one constituency has more than one district, the population of these districts is added to get the population at constituency level.

Further, to understand the election results, two key variables are used as dependent variables. First, the concentration of votes at constituencies, and second, vote share of winning candidates. These

variables represent whether there is concentration at the constituency level, and whether the winning candidate is getting more than 50% of the votes cast.

The Herfindahl-Hirschman Index (HHI)⁶ is calculated by adding the square of vote shares of all candidates in each constituency. HHI shows the voting concentration, i.e. a higher HHI value suggests that one candidate has managed to win high vote share. Lower HHI and lower vote share of winning candidate suggests that votes are getting divided among other candidates too.

Since the candidate with the highest number of votes wins the election in an FPTP system, voters may prefer a given candidate, yet vote for another, whom they think is more likely to win (so that their vote is not 'wasted'). At the national level, this behaviour is reflected in vote-seat disproportionality.

 $HHI = \sum_{i=0}^{n} x_i^2$

Where x_I is vote share of i^{th} candidate in given constituency.

Further it is also interesting to understand how vote concentration changes for Scheduled Caste or Scheduled Tribe (SC/ST) reserved constituencies compared to general constituencies. Therefore, a dummy variable for reserved constituencies is used in the analysis. Further, since concentration and vote share of wining candidates can be affected by the number of candidates contesting the elections in given constituency, incumbency, number of terms, and which party the candidates belong to, I introduce controls for each of these variables into the analysis.

Since the 2011 census is the most recent available, extrapolation of population data after 2011 is avoided. The focus of the study is thus on the 1991, 1996, 1998, 1999, 2004, and 2009 Lok Sabha elections; it is interesting to focus on the post-1991 period, where alliance politics becoming a routine.

Every state can have a different pattern of voting; to control for this, state dummy variables are included, to allow for state-specific effects. Adding to the state-specific effect, time-specific effect is also controlled. Appendix table no. 1 summarizes the variables which are used in this work.

Equation 1:

 $\begin{array}{l} HHI_i = \alpha + \beta_1 * Fractionalization \ Index_i + \beta_2 * Polarization \ Index_i + \beta_3 * Incumbent_i + \\ \beta_4 * SC_i + \beta_5 * ST_i + \beta_6 * Same \ Party_i + \beta_7 * Number \ of \ Candidates + \beta_8 * \\ Number \ of \ Terms_i + \sum_{i=2}^n D_i * \ State_i + \sum_{i=2}^n \theta_i * \ Year_i + \epsilon_i \end{array}$

In equation one, HHI is the dependent variable; fractionalization index, polarization index, incumbent dummy variable, same party dummy variable, number of candidates, and number of terms are independent variables.

Equation 2:

Vote Share of Winner_i = $\alpha + \beta_1 *$ Fractionalization Index_i + $\beta_2 *$ Polarization Index_i + $\beta_3 *$ Incumbent_i + $\beta_4 *$ SC_i + $\beta_5 *$ ST_i + $\beta_6 *$ Same Party_i + $\beta_7 *$ Number of Candidates + $\beta_8 *$ Number of Terms_i + $\sum_{i=2}^{n} D_i *$ State_i + $\sum_{i=2}^{n} \theta_i *$ Year_i + ε_i

In equation two, independent variables are the same, but the dependent variable is the vote share of the winning candidate. In both equations, state dummies and time dummies are incorporated to control for state-specific and time specific effects. Appendix table 4 explains the coefficient in equation one and equation two.

3. RESULT

Appendix table 5 shows the result for Equation 1.

- In three models, the fractionalization index has statistically significant and negative impact on HHI.
- In all models, the coefficient of SC and ST dummies are statistically significant and negative.
- In all models, the number of candidates has a statistically significant and negative impact on HHI, albeit a very small one.
- In all models, the number of terms served by the winning candidate has a statistically significant and positive impact on HHI.

Appendix table 6 shows the result for Equation 2.

- In three models, the fractionalization index has a statistically significant and negative impact on vote share of the winning candidate.
- In three models, the coefficient of the ST dummy is statistically significant and negative.
- In three models, the number of candidates has a statistically significant and negative impact on vote share.
- In all models, the number of terms already served by the winning candidate has a statistically significant and positive impact on their vote share.

Both the HHI and the vote share of the winner are negatively impacted when the fractionalization index is included. The fractionalization index provides insight into the religious diversity. The more diverse the population, the more likely it is that votes will be split. As a result, there will be a lesser concentration of votes in a society with a high level of diversity.

Due to the fact that votes are being split, whomever comes out on top will also obtain a low vote share. Since the winner is determined by the number of votes received, and since the winner's share of the vote is decreasing as a result of increasing diversity, the disproportionality of representation at the national level – i.e. seats held by candidates who received a low vote share, hence are less representative of their constituents – is growing along with the religious diversity.

It is interesting to note that the concentration of votes in reserved seats (SC/ST) is, on average, lower than in general constituencies. This indicates that votes are being split more in SC/ST reserved constituencies in comparison to general constituencies. When compared to general constituencies, reserved seats often result in the winner obtaining a smaller share of the votes cast. This suggests that in reserved seats, parties who are not winning are nevertheless able to get a good percentage of vote shares.

Both the extent of concentration and the vote share are being influenced by another factor: the number of terms. This has a positive and significant influence on both the vote share and the HHI, which shows that candidates with a large number of terms manage to obtain the greater vote share, which also translates into a higher degree of voting concentration.

4. CONCLUSION

It is a well-known fact that the FPTP system causes disproportionality. This study seeks to explain how the FPTP system contributes to disproportionality in diverse societies. In diversified constituencies, votes are distributed among a larger number of parties, which results in a lower vote concentration in any one party, as well as a lower vote share for the winner of that constituency.

This suggests that in the more diverse constituencies, the parties that did not end up winning the election are also attracting voters; however, because the winner of an election under the FPTP system is the candidate who receives the highest number of votes, these preferences do not end up being represented in the house. This results in a disproportionality, since parties are getting votes yet are unable to win the election as a result of the situation.

When compared to general constituencies, the vote concentration in SC/ST reserved constituencies is much lower. The parties who ended up losing the election in SC/ST reserved constituencies have been able to get votes, but they were unable to reflect these votes in the house. Therefore, it is vital to discover the means by which these parties may be provided a place in the house.

The problem of disproportionality is a worrying aspect of the FPTP system. Are parties becoming seatless even though voters are preferring them? If candidates are winning the election by gaining 30–40% of the vote, then what happens to the remaining 60–70% of the vote? If this also occurs in reserved constituencies, then the issue of disproportionality becomes more severe. It becomes relevant to ask whether it is fair to reserve seats instead of votes. These are important questions that need answers.

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Variables	Description in general sense	How indices are implemented in this work	Interpretation
Fractionalization Index	Easterly and Levine (1997) discusses the fractionalization index to identify the social diversity.	In this work, census data is used. As religious data is available compared to caste-based data, religious data is used to calculate the fractionalization index.	High fractionalization index suggests that there are large numbers of religious groups in a given constituency.
Polarization Index	Polarization index discussed by Montalvo and Reynal-Querol (2005) and Reynal- Querol (2002) gives an idea about polarization across the social groups. It helps to identify whether one group has higher representation in society compared to others.	In this work census data is used. As religious data is available compared to caste-based data, religious data is used to calculate the polarization index.	High polarization index suggests that one religious group has higher representation or higher population compared to other religious groups in a given constituency.
ННІ	Hirschman (1958) discusses Herfindahl- Hirschman Index (HHI). HHI helps to understand the market concentration and competitiveness.	HHI in this work is used to calculate the voting concentration. Vote shares received by the candidates in a given constituency are used to calculate the HHI.	Higher HHI suggests that the concentration of votes is high, which suggest the winning candidate is dominating the other candidates in terms of votes.
Vote share of winning candidate	Vote share of winning is calculated as: $\left(\frac{Votes\ received\ by\ winnign\ candidates}{Total\ votes\ in\ given\ constituency}\right)*100$ Data from Election Commission of India is used.		Vote share is the percentage of total votes received by the winning candidate.

APPENDIX

Table 1: Summary of variables

Incumbent (dummy variable)	Data available from Election Commission of India is used to identify whether a given	This is a dummy variable. It is one if			
(duminy variable)	candidate won in the immediate previous	the given candidate is			
	election.	incumbent and zero			
		otherwise.			
Same party	Data available from Election Commission of	This is a dummy			
(dummy variable)	India is used to identify whether a given	variable. It is one if			
	candidate is contesting the election from the	given candidate is			
	same party as when they contested before, or if	contesting the			
	they have changed their party affiliation.	election from same			
		party which they were			
		representing in the			
		previous election.			
Number of	Data available from Election Commission of	I his shows the total			
candidates	India is used to identify the total number of	number of candidates			
	candidates contesting the election.	election in given			
		constituency			
Number of terms	Data available from Election Commission of	This shows how many			
	India is used to identify how many times a given	times a given			
	candidate has won the elections previously.	candidate managed to			
	1 5	win the election in the			
		past.			
SC dummy	Notifications from Election Commission of	This is a dummy			
variable	India are used to identify whether a given	variable. It is one if a			
	constituency is reserved for SC candidates.	given constituency is			
		reserve for Scheduled			
		Caste and zero			
		otherwise.			
ST dummy	Notifications from Election Commission of	This is a dummy			
variables	India are used to identify whether a given	variable. It is one if a			
	constituency is reserved for 51 candidates.	given constituency is			
		Triba and zoro			
		otherwise			
		otherwise.			
		r			
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Variable	Obs	Mean	Std. Dev.	Min	Max
HHI	2,803	0.372025	0.085857	0.1	0.813008
Vote share	2,803	47.82154	10.20984	15.04	91.67
Fractionalization Index	2,804	0.272003	0.155018	0.000277	0.730423
Polarization Index	2,804	0.643503	0.284259	0.002994	0.999764
Number of Candidates	2,805	13.86346	13.57579	1	456
Number of Terms	2,805	2.276649	1.588039	1	10

Table 2: Descriptive Statistics

Table 3: Descriptive Statistics (State-wise)

State	HHI	Vote share	Fraction- alization Index	Polarizatio n Index	Number of Candidates	Number of Terms
Andaman and Nicobar	0.40854	50.855	•	•	8.333333	4.833333
Andhra Pradesh	0.39868	49.48293	0.204475	0.511016	12.01596	2
Arunachal Pradesh	0.417678	54.84			4.25	1.583333
Assam	0.313515	46.12532	0.379434	0.825199	9.367089	2.164557
Bihar	0.356299	46.72661	0.274368	0.656841	16.38976	2.192913
Chandigarh	0.340187	43.675	0.262676	0.730676	28	2.166667
Chhattisgarh	0.370729	47.02143	0.083478	0.217156	12.92857	2.214286
Dadra and Nagar Haveli	0.403404	54.68	0.11099	0.325983	5.666667	3.5
Daman and Diu	0.408417	51.59833	0.232871	0.61312	6.666667	1.666667
Delhi	0.414797	49.21207	0.358731	0.845813	38.68966	2.068966
Goa	0.368921	45.931	0.478103	0.95365	10.9	1.8
Gujarat	0.43665	51.4597	0.190185	0.494497	11.65909	2.606061
Haryana	0.320863	45.80614	0.164201	0.421461	18.45614	1.842105
Himachal Pradesh	0.456067	53.869	0.061711	0.164628	8.1	2.35
Jammu and Kashmir	0.318715	42.49143	0.36427	0.99	13.92857	1.535714
Jharkhand	0.248959	43.02684	0.36752	0.765092	15.47368	2.421053

Karnataka	0.35773	47.59603	0.272646	0.679166	14.14103	2.173077
Kerala	0.420849	51.52826	0.511832	0.969302	8.669725	2.477064
Lakshadweep	0.490385	56.86167			3	6
Madhya Pradesh	0.388574	47.82742	0.150995	0.411924	15.68681	2.67033
Maharashtra	0.38557	48.1836	0.335756	0.776998	12.8692	2.253165
Manipur	0.275831	41.84417			9.083333	1.75
Meghalaya	0.427055	55.221	0.565133	0.987269	5.9	3.6
Mizoram	0.414687	50.535			5.166667	1.666667
Nagaland	0.584948	72.415			3.5	1.333333
Odisha	0.407923	52.21125	0.103504	0.274171	7.455357	2.446429
Puducherry	0.34621	44.146	0.191402	0.519889	16	1.6
Punjab	0.39478	50.31197	0.45092	0.978622	12.0303	1.787879
Rajasthan	0.413416	49.40205	0.210558	0.552249	14.56818	2.25
Sikkim	0.576233	70.29333			5.333333	1.666667
Tamil Nadu	0.419308	52.28974	0.214247	0.545038	13.43455	1.879581
Telangana	0.282539	39.59333	0.421402	0.829392	16.25	1.666667
Tripura	0.482455	61.21538			8.076923	3.076923
Uttar Pradesh	0.282049	39.14889	0.275858	0.670787	19.54989	2.05765
Uttarakhand	0.340077	45.8	0.292704	0.655331	12.14286	2.571429
West Bengal	0.401048	52.58014	0.369467	0.841188	8.213636	3.109091
Total	0.372025	47.82154	0.272902	0.644683	13.86346	2.276649

Coefficient Interpretation in equation one Interpretation in equation two Represents the impact of Represents the impact of fractionalization fractionalization index on HHI. If it index on vote share. If it is positive, then an is positive, then an increase in increase in fractionalization index increases β_1 fractionalization index increases the the vote share of the winning candidate. HHI. Represents the impact of Represents the impact of polarization index polarization index on HHI. If it is on vote share. If it is positive, then an increase β_2 positive, then an increase in in polarization index increases the vote share polarization index increases the of the winning candidate. HHI. It is a coefficient of incumbent It is a coefficient of incumbent dummy. It dummy. It shows on an average how shows on an average how much difference much difference exists between exists between vote share of the winning HHI of the constituency in which candidate in a constituency in which the β_3 incumbent candidate wins the incumbent candidate wins than that in other election and HHI of other constituencies. constituencies. It is a coefficient of SC dummy. It It is a coefficient of SC dummy. It shows on an average how much difference exists shows on an average how much difference exists between HHI of between vote share of the winning candidate β_4 SC reserved constituency and in an SC reserved constituency and general constituencies. general constituencies. It is a coefficient of ST dummy. It shows on It is a coefficient of ST dummy. It shows on an average how much an average how much difference exists difference exists between HHI of ST between vote share of the winning candidate β_5 reserved constituency and general in an ST reserved constituency and general constituencies. constituencies. It is a coefficient of same party It is a coefficient of same party dummy. It dummy. It shows on an average how shows on an average how much difference much difference exists between exists between vote share of the winning HHI of the constituency where a candidate in a constituency where that β_6 candidate contesting from the same candidate is contesting from the same party party wins the election and other as in previous elections, and that in other constituencies. constituencies.

Table 4: Interpretation of coefficient

β ₇	Represents the impact of number of candidates on HHI. If it is positive, then an increase in number of candidates increases the HHI.	Represents the impact of number of candidates on vote share. If it is positive, then an increase in number of candidates increases the vote share of the winning candidate.
β ₈	Represents the impact of number of terms already served by the winning candidate on HHI. If it is positive, then an increase in the number of terms increases the HHI.	Represents the impact of number of terms already served by the winning candidate on their vote share. If it is positive, then an increase in number of terms increases the vote share.
D	It is a coefficient of state dummy. It al	lows us to control for state-specific effects.
θ	It is a coefficient of year dummy. It all	ows us to control for time-specific effects.

HHI (Concentration of	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Votes)						
Fractionalization Index	-0.141** (0.01)	-0.035** (0.03)		-0.119** (0.02)	-0.031 (0.05)	-0.011 (0.17)
Polarization Index	0.059** (0.03)		-0.012 (0.15)	0.049 (0.08)		
Incumbent (1 if incumbent)	0.003 (0.40)	0.003 (0.43)	0.003 (0.44)	-0.001 (0.87)	-0.001 (0.82)	-0.001 (0.82)
Reserved for SC (1 if constituency is reserved for SC)	-0.014*** (0.00)	-0.014** (0.01)	-0.014*** (0.00)	-0.013** (0.01)	-0.012** (0.010	-0.012** (0.01)
Reserved for ST (1 if constituency is reserved for ST)	-0.028*** (0.00)	-0.029*** (0.00)	-0.030*** (0.00)	-0.025** (0.01)	-0.027*** (0.00)	-0.027*** (0.00)
Same Party (1 if candidate contesting the election with same party)	0.000 (0.93)	0.001 (0.88)	0.001 (0.91)	0.014** (0.03)	0.014** (0.03)	0.014** (0.03)
Number of Candidates Contesting the election	-0.001*** (0.00)	-0.001*** (0.00)	-0.001*** (0.00)	-0.001*** (0.00)	-0.001*** (0.00)	-0.001*** (0.00)
Number of terms for the candidates	0.003** (0.03)	0.003** (0.02)	0.003** (0.02)	0.004*** (0.00)	0.004*** (0.00)	0.004*** (0.00)
Constant	0.432*** (0.00)	0.440*** (0.00)	0.439*** (0.00)	0.352*** (0.00)	0.361*** (0.00)	0.360*** (0.00)
Controlling for Party of previous winner	No	No	No	Yes	Yes	Yes
Controlling the State Specific Effect	Yes	Yes	Yes	Yes	Yes	Yes
Controlling the Time Specific Effect	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	1407.00	1407.00	1407.00	1407.00	1407.00	1407.00

Table 5: Regression results for Equa	tion	1
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F	27.01	27.51	27.38	13.08	13.15	13.11
Prob > F	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R-squared	0.44	0.44	0.44	0.52	0.52	0.51
Adjusted R-squared	0.43	0.42	0.42	0.48	0.48	0.48
Joint test for State	24.61	24.60	24.31	20.43	20.37	20.21
Specific and Time	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Specific Effect:						
F value (P value)						

Vote Share of Winner	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Fractionalization Index	-13.012**	-4.322**		-10.098	-4.090**	
	(0.04)	(0.02)		(0.11)	(0.03)	
Polarization Index	4.853		-1.737	3.315		-1.754
	(0.14)		(0.08)	(0.32)		(0.08)
incumbent (1 if	0.409	0.392	0.384	-0.113	-0.128	-0.135
incumbent)	(0.39)	(0.41)	(0.42)	(0.82)	(0.79)	(0.78)
Reserved for SC (1 if	-0.909	-0.885	-0.892	-0.841	-0.825	-0.828
constituency is reserved for SC)	(0.11)	(0.12)	(0.12)	(0.14)	(0.15)	(0.15)
Reserved for ST (1 if	-2.416**	-2.531**	-2.583**	-1.971	-2.045	-2.084
constituency is reserved for ST)	(0.03)	(0.02)	(0.02)	(0.07)	(0.06)	(0.06)
Same Party (1 if	-0.129	-0.108	-0.122	1.372	1.394	1.393
candidate contesting the election with same party)	(0.82)	(0.85)	(0.83)	(0.07)	(0.07)	(0.07)
Number of Candidates	-0.057**	-0.057**	-0.058**	-0.040	-0.040	-0.040
Contesting the election	(0.03)	(0.03)	(0.03)	(0.13)	(0.14)	(0.13)
Number of terms for the	0.396**	0.405***	0.412***	0.492***	0.496***	0.501***
candidates	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	50.840***	51.4731***	51.494***	44.589***	45.167***	45.231***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

Table 6: Regression results for Equation 2

Controlling for Party of	No	No	No	Yes	Yes	Yes
previous winner						
Controlling the State	Yes	Yes	Yes	Yes	Yes	Yes
Specific Effect						
Controlling the Time	Yes	Yes	Yes	Yes	Yes	Yes
Specific Effect						
Number of observations	1407.00	1407.00	1407.00	1407.00	1407.00	1407.00
F	24.85	25.41	25.31	11.62	11.72	11.69
Prob > F	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R-squared	0.42	0.42	0.43	0.49	0.49	0.49
Adjusted R-squared	0.40	0.40	0.40	0.44	0.44	0.44
Joint test for State	25.60	25.65	25.44	22.45	22.47	22.34
Specific and Time	(0, 00)	(0,00)	(0, 00)	(0, 00)	(0, 00)	(0, 00)
Specific Effect: F value	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
(P value)						

Notes

¹Refer to Reynolds, Reilly, and Ellis (2008). In FPTP, every voter can give one vote and the candidate who receives the highest votes wins the election. Therefore, votes received by minor parties or parties representing a smaller section of the population can be seen as wasted votes as these votes don't get any "voice" and "value" in parliament. Therefore, even those voters who prefer smaller parties can vote for other parties rather than "wasting their votes".

²Under plurality rule, the candidate who receives more votes than his/her opponents wins the election. FPTP systems are an example of plurality rule.

³Refer to Law Commission of India, Report No. 255 Electoral Reforms March 2015 <u>http://lawcommissionofindia.nic.in/reports/report255.pdf</u>

⁴Refer to Report of the Committee on Electoral Reforms, May 1990, Government of India, Ministry of Law and Justice, Legislative Department,

https://adrindia.org/sites/default/files/Dinesh%20Goswami%20Report%20on%20Electoral%20Reform s.pdf

⁵The fractionalization index identifies the chances of selecting two individuals randomly belonging to the different groups. This fractionalization index doesn't discuss the cultural and economic differences among groups (Baldwin and Huber, 2010)

⁶HHI index is commonly used index to measure the market concentration.



Flexible Inflation Targeting: Performance Evaluation Overlooks Vital Issues

Renu Kohli*

Abstract

The paper analyses some vital aspects of India's flexible inflation targeting (FIT) regime, whose first-term performance was evaluated by the RBI in 2021. The absence of negative shocks, collapse of international commodity prices at the time of its introduction, and decelerating growth are pointed out in this article as notable contributors to achieving inflation target than the change of regime as claimed by the RBI. The success in anchoring inflation expectations is contestable in the light of their rigid persistence, association with fuel prices and upward drift with resurgence of inflation in recent times, indicating that the task remains unaccomplished. The post-FIT rise in output volatility is highlighted, raising the question if increased inflation focus contributed to slower growth. Macroeconomic stability ascribed to credibility gained under FIT is similarly shown without basis as indicated by oil-price spikes and exchange rate pressures. Overall, FIT's performance awaits further testing, especially over different economic cycles.

Keywords: Inflation targeting, monetary policy, emerging market economies, inflation expectations, exchange rates

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ndia's flexible inflation targeting (FIT) framework for monetary policy was evaluated by the RBI ahead of its renewal in 2021 (*Report on Currency and Finance*, 2020-21, henceforth RCF). Based on the assessment, the central bank advocated FIT's continuation for another five years, especially due to the success in anchoring inflationary expectations. This commentary offers a critical perspective on some aspects of the review.

How has the FIT regime performed in a downswing?

From the time of its formal adoption in August 2016, the FIT regime faced little challenge in its first term of operation except the first few months of the Covid-19 shock. This period, 2016-17 to 2019-20, was marked by a widening output gap as GDP growth plunged from 8.3% to 3.7%. Disturbances such as the oil price spike and exchange rate pressures in 2018 were short-lived. This made it somewhat easier for the monetary policy committee (MPC) to look through the rise in inflation expectations. CPI headline inflation stayed mostly within the 2% tolerance band, averaging close to 4% in the 54 months since FIT's adoption and even lower in the first 40 months (3.4% until November 2019). In the next 12 months, a period dominated by Covid-related supply disruptions, it breached the 6% mark (Figures 1 & 2).





Source: MoSPI with author's calculations



Figure 2: Inflation Expectations (3 months and 1 year ahead)

FIT's smooth-sailing can however be attributed to developments before its official, or *de jure* rollout.¹ Nearly two years before, in August 2014, CPI inflation slipped under 6%. The RCF claims that the signalling effect of FIT regime shift in September 2013, its *de facto* (informal) rollout in January 2014, and some good luck that tamed the beast (RCF, pg. 19). It also presents a counterfactual exercise with CPI-headline inflation as nominal anchor in 2009-11 to illustrate how this would have triggered monetary tightening much earlier, preventing inflation expectations from reaching double-digits (*Ibid.* pgs. 11-13). Further proof is offered in coincidence of a structural breakpoint in the inflation series in 2014:Q3 "...with the *de facto* adoption of FIT in India" (Chart II.6, RCF, pg. 49)!

This may well be true, but surely the claim that *de facto* FIT-introduction caused inflationary expectations to collapse in one quarter - from 13.5% in September 2014 to 9.3% in December 2014 (Chart 2) - is far-fetched. Consider some other developments. One, the disinflationary glide path announced to lower CPI inflation to 8% by January 2015 and 6% by January 2016 was undershot by the rapid, steep decline sixteen months ahead - to 6.8% in June 2014 and 5.6% by September 2014 - much to the RBI's surprise! Two, much the same happened in other countries, coinciding with the fall of commodity prices in mid-2014 to early 2016 (BIS, 2019, pg. 32) and with sharp, offsetting depreciations across commodity-exporters but not in India.

Three, the FIT's claim of success crucially overlooks the steep drop in WPI-inflation to under-5% in April 2013 and negative by November 2014. A large divergence in WPI and CPI was untenable and CPI inflation would have fallen regardless of the FIT regime. Last, the regular coincidence of other structural breaks identified, viz., 2008Q2-2014Q2 and 2000Q3-2008Q1(RCF: pp 49) with oil price swings cannot be ignored. These years were marked by progressively sharp increases in oil prices

- from \$26bbl annual average (2000-01) to peak \$112bbl (2011-12) and \$106-108bbl to 2013-14. Indeed, the recent reversal and rise of crude oil prices in the second phase of FIT buttresses their role in inflation and inflationary expectations *irrespective* of the monetary regime.

Are inflation expectations well anchored?

Under IT, committing to low inflation yields a friendlier trade-off in the short-term as inflationary expectations stay 'anchored'; that is, the public remains "relatively insensitive to incoming data" (Bernanke, 2007). Conversely, these are poorly anchored if the public reacts to temporary spurts in inflation by raising long-run expectations considerably (*Ibid.*). In its appraisal, the RCF indicates their broad alignment by pointing to decline in median, one-year ahead inflation expectations of *urban* households (from average 12.5% before-FIT to 8.7% under FIT) and in some survey-derived measures such as consumer confidence, industrial outlook and professional forecasters. Lowered inflation persistence under FIT implies diminishing costs of future disinflation, it says, although backward-looking adjustments to current and future wage-price setting moderated throughout, not just post-FIT (RCF, pg. 60).

Here, and in the context of influencing actual inflation, it is noteworthy that although professional forecasters' expectations may have been fairly aligned, as in many other IT economies (for Asia, see Mehrotra and Yetman, 2014), the consumer and firm surveys carry far greater relevance. This is because of the information they provide on wages and price setting and which impact actual inflation.² Indeed, with inflation returning globally, signs of rising medium-term expectations of the public in the US and other countries including advanced ones, and grave concerns about deanchoring, the divergence in households and business expectations with those of professional forecasters and the comparative predictiveness are under fresh re-examination. Research evidence shows consumers' beliefs do not align with targets as few people pay attention to a central bank's messaging unlike financial markets and professional forecasters; this creates doubt if central banks could bring down expectations (see *Economist*, June 19, 2022 for a recent discussion). In this regard, the decline in inflation expectations of Indian households, following fuel levy cuts last November and in April 2022 – both government actions – is pertinent.

Second, the 3-month and 1-year ahead household inflation expectations in India have never fallen below 8%; their 8-10% range suggests that long public memory has probably remained unchanged. It is as inconsistent to claim early 'signalling' success with sudden collapse in expectations as in December 2014, but shift focus to their direction and stability when expectations remained sticky above 8% thereafter! Or to draw attention to some other countries where household inflation expectations remained above-target in the early years and took long to align (RCF, pg. 61). These observations are true, but India's urgencies in adopting FIT were different – the entire edifice of Urjit Patel Committee (UPC) was based upon anchoring households' inflationary expectations that feed into wage negotiations, triggering second-round effects. This was also why core inflation converged to the headline, compelling the UPC to recommend targeting headline inflation, unlike in other countries.

Last, a successful anchoring should decrease persistence by guiding the public's expectations and forecasts towards the announced inflation target. The extent of anchoring has first-order implications

for inflation performance and for the economy overall (Mishkin, 2007). That successful anchoring is yet unaccomplished is well illustrated in the inflationary resurgence towards the end of FIT's first phase as expectations drifted above 10% and into the 12% region with continued susceptibility to fuel price shocks (Box II.3, RCF, pg. 65).

The claim of a credibility payoff in the form of enhanced scope for policy manoeuvre under FIT is thus questionable. There could be several sound and alternate reasons as to why the persistently high household expectations have not triggered a wage-price spiral after 2014. *Inter alia*, a large output gap with a three-year slowdown before Covid, increased unemployment, persisting slack in manufacturing, low producer-price expectations and weak bargaining power. With a cyclical recovery, things could change.

Output sacrifice: Low, stable inflation associated with slowing growth

Low, stable inflation is understood to promote growth, efficiency and stability in the long run. This is why a large number of advanced and emerging market central banks have adopted frameworks setting low inflation as the primary goal of monetary policy, explicit or otherwise. However, India's case has been to the contrary in FIT-I.

The RCF also acknowledges that low, stable inflation in India is not associated with higher growth. It accepts the commodity prices' collapse helped minimize output losses "...that typically take their toll in these regime changes". However, the subsequent analysis is narrow and simplistic. This is confined to the decline in level of GDP growth and overlooks its increased volatility. A crude narrative recounts the FIT period's coincidence with the sequential decline in real GDP growth from 2018-19, ascribing it to various external and domestic factors. *Inter alia*, global slowdown, geopolitical developments, trade wars, financial and corporate balance sheet strains, reversal in the terms of trade, and a weakening pace of trend growth after 2008, are highlighted. It is then concluded "...the question of low stable inflation during FIT not being associated with higher growth has to be addressed by investigating the structural changes underway in the Indian economy" (RCF, pgs., 31 & 4).

Why? Unsophisticated analyses that neither account for nor control for the myriad factors impacting growth are incomplete; formal empirical methods to identify their relative roles are necessary. There's little justification for appeal to structural forces or trend output decline either.

While most assessments of inflation targeting (IT) have examined if its adoption contributed to substantial declines in average inflation, inflation volatility and imparted macroeconomic stability in general (BIS, 2019, pg. 34), implications for the level and volatility of output as well as other macroeconomic effects³ have also been studied. Changes in output volatility under different monetary regimes are important because aggregate supply shocks move output and inflation in opposite directions. The trade-off so created between output and inflation variability forces a choice upon central bankers (Cecchetti & Ehrmann, 2002). Because monetary policy can only move both in the same direction, differences due to the extent of accommodation of supply shocks lead to divergent outcomes in output and inflation variability, reflecting the relative weights on either in a central bank's preferences (*Ibid*.).

Output volatility and growth are also found negatively associated (Ramey and Ramey, 1995), the causality running from volatility (Hnatkovska and Loaza, 2004). The proximate causes can be several, e.g., discretionary fiscal policy and government size in general, effects of economic uncertainty upon investment, credit market imperfections, movements in inflation volatility, trade openness, etc. For India, the dominant role of monetary policy is highlighted by Ghosh (2012).

	Pre-FIT	Pre-FIT
	2012/13-2015/16	2016/17-2019/20
Inflation	2.4	1.4
Real GDP	1.4	1.8
Exchange rate (REER, 36-	16	13
country	1.0	1.5
Manufacturing ¹	2.9	4.1
General industrial output ²	2.9	3.5

Table 1: Inflation and Output Volatility

Source: Table 1.6, Report on Currency & Finance, 2020-21, RBI

^{1,2} CSO with author's calculations

Table 1, drawn from the RCF, presents the average level and volatility of key macroeconomic variables, with my additions. Post-FIT, inflation and real GDP growth levels declined. Inflation volatility fell 100 basis points. While output volatility rose 40 basis points. There's no further analysis of the increased volatility of output or its impact upon growth (level) in the RCF however. For better understanding, a naïve attempt is made here to examine differences in sensitivities to interest rate changes and asymmetric effects of monetary policy. The corresponding variabilities of industrial and manufacturing output presented along with show comparably larger increases than aggregate GDP growth. Notably, the variability of manufacturing output is seen increasing threefold under FIT.

What explains the relatively harsher incidence upon manufacturing? Does the exchange rate have a role to play? It is well known the exchange rate is considered too important a variable to ignore under inflation targeting given its role in the determination of domestic prices in emerging market economies (EMEs) and their higher vulnerability to external shocks. The real exchange rate is certainly more stable under FIT (Table). Chart 3 shows the exchange rate smoothing scaled-up under FIT, dejure and defacto, even though external shocks of magnitudes comparable to the previous monetary regime (e.g., the global financial crisis, 2008, 'taper shock', 2013) were absent. The complementarity of exchange rate and monetary management is also supported by the fact that monetary conditions, combining interest rate and exchange rate changes4, remained tighter during FIT than the pre-FIT period as stated in the RCF (pg. 179).









To reinforce the same point, Chart 4 plots the relative volatility ratios for real GDP and manufacturing against inflation. The relative variability of real GDP is seen declining after 2016-17

as growth slowed but that of manufacturing output remained relatively higher and even increased. Actual volatility magnitudes indicate the positive terms-of-trade environment in 2014-16 lowered both output and inflation volatility, but the latter far more. With their subsequent reversal, the cumulative increase in inflation volatility to 2017-18 and entire duration of FIT-1 was respectively half and one-fourth the increase in manufacturing volatility in these two intervals.

Whether the relative variabilities characterize a change in the monetary regime in which the focus on inflation increased is subject to important shortcomings such as the short tenure, 'good luck' and cumulative 11.1% appreciation in the currency. What the simple exercise underscores is that on average, monetary policy under FIT may have been conducted in a way that lowered inflation volatility at the expense of output, with possibly adverse effects upon investment and growth. A combined effect of exchange rate and interest rate changes could be a reason.

Several studies find an increased volatility of output growth under IT. Most formal assessments employ control groups or countries with different or non-IT regimes. For example, Cecchetti & Ehrmann's (2002) cross-section study of 23 countries (9 explicit inflation targeters) found a uniform increase in aversion to inflation variability in the 1990s (compared to 1985-89, pre-IT period) but more for inflation targeters who likely faced the most increases in output volatility as result. Banerjee et al's (2016) performance comparison of IT vs non-IT EMEs shows larger increases in output volatility for the IT group (more than doubled in 2007–12 over 2000–06); inflation volatility rose much less despite the later period being of high inflation. Meta-regression analysis (Balima et al, 2017) finds significant effects of IT upon growth volatility but not on the level of GDP growth; effects on the level of inflation are significant but no robust effect found for inflation volatility. The evidence varies due to differences in sample period, empirical methodology, treatment of country-specific factors and the control group used (BIS, 2019, pg. 37).

The RCF's analysis skips over the relevant cross-country evidence, moving to a discussion on the temporary and permanent output effects of monetary policy. However, the post-FIT increase in output variability is too fundamental to be excluded from a performance evaluation, which is incomplete especially because of the claim that monetary policy was neither overtight nor more hawkish (RCF, pg., 42) despite hints to the contrary in fine-tuning the balance. At least one reason to suspect negative growth effects of increased volatility is that it implies riskier returns to investments, similar to the well-known effects of raised uncertainty or fluctuations of output in macroeconomics.

Last but not the least, choices made under the trade-offs posed by supply shocks are important for FIT's appraisal because of their domination in India. Recall it is the frequency of food price shocks, their role in formation of inflation expectations, resulting feedback to wages and price-setting, and the spill overs to general inflation that were identified as the transmission mechanism by the Urjit Patel Committee (UPC, 2014) and led to choosing of headline retail inflation as the nominal anchor.

Has macroeconomic stability been secured?

A large stock of foreign exchange reserves, smaller current account and fiscal deficits, lower inflation and credibility from the FIT regime have all contributed to the perception that India's external sector is fundamentally stronger than in 2013. It stands to reason this claim requires further

testing. In addition to the role of munificent terms of trade discussed earlier, external shocks of past severity have been absent in FIT-I which too is underlined before. This especially applies to the capital account, where the peak shares in GDP are 42.3% and 2.5% in gross and net terms under FIT. These compare with a respective 67.4% and 9.3% of GDP in 2007-08, and 52.5% and 2.6% of GDP in 2013-14 (gross and net).

To illustrate that fragility and susceptibility to shocks endures, we need look no further back than 2018. Crude oil prices rose from \$51bbl in the September 2017 quarter to \$60, \$73 and \$75bbl in the next three quarters and to \$80bbl in October 2018. In correspondence, the current account rapidly doubled to -2.8% of GDP in December 2017, and -3% and -3.6% of GDP in the following two quarters. To offset the \$8.5 billion of net capital outflow in April-June 2018, the RBI expended nearly \$25 billion of reserves in combination with additional measures⁵ and yet, the rupee depreciated 5%! In fact, the peak-to-trough decline in reserves in mid-April-July 2018 equalled that in April-August 2013 when the rupee depreciated threefold or 15% with the net capital account at -\$4.7 billion July-Sept 2013 (in April-June 2018, this was \$4.8 billion).

That vulnerability to oil price shocks persists can also we well seen in the present instance of oil prices surges and notwithstanding robust growth of exports. Vulnerability may have even risen with progressive increase in financial openness and structural weakening of the current account (Kohli, 2018). With the commodity prices' resurgence rekindling cost-push elements and the return of fiscal dominance to revive post-pandemic growth, a more considered assessment may be possible ahead.

Conclusion

The assessment of FIT's performance as a success in its first and initial phase lacks sufficient foundation. Overall, the framework's performance awaits testing against stiffer challenges than faced in the benign configuration in its first tenure, and which deserves fuller recognition than the RCF accords. It is argued here the evidence on anchoring inflationary expectations is unconvincing and needs further test of withstanding different cycles. In dimensions such as the growth impact in relation to an increased focus on inflation, both evidence and reasoning need firmer, more sophisticated footing.

Recent developments or a turnaround in inflation portend testing times ahead. Headline inflation, which averaged 4.8% in 2019-20, before the Covid-19 shock and with growth slowing to 3.7%, has climbed up since due to a combination of factors. Significant features here are a series of domestic and external supply shocks that include pandemic-related ones with inflation persistence, a reversal of producer price deflation after 2017 with rapid acceleration of WPI inflation that swung to 14% year-on-year growth in 2021-22 from 1.3% the previous year, elevated core-CPI inflation averaging 5.1% in long-term and 6% recently, an enlarged producer-consumer price gap including respective rates of core inflation (Kohli, 2022), the rise in inflation expectations of households into double-digits from a sticky, 8% perch before, upswing in the international commodities cycle, reversal of the low inflation and ultra-loose monetary and financial conditions with US monetary tightening and many other countries, and precariously high stock of public debt and enlarged fiscal deficit.

If oil and commodity prices continue to rise in conjunction with tighter financial conditions, India could face extreme uncertainty and capital outflows that may not augur well as the increased fiscal dominance could ripen the situation for testing the FIT regime (Kohli, 2021). Undoubtedly, the central bank is seized of these implications.

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Notes

¹ The *de jure* and *de facto* classification refers to formal adoption against the informal or pre-conditions fulfilment period from January 2014 (RCF, pgs. 7 & 28).

² For example, managers' surveys for New Zealand show little anchoring of inflation expectations despite 25 years of IT (Afrouzi et al, 2015)

³ Other appraisals include the degree of exchange rate pass-through, nominal and real exchange rate volatility, size of fiscal imbalances and fiscal discipline (BIS, 2019, pg. 34).

⁴ Weighted average call rate (0.65) and real effective exchange rate (0.35) in MCI correspond to 1.83 ratio, i.e., equivalent effects of 1 percentage point change in real interest rate and 1.83 percentage point change in real effective exchange rate upon real aggregate demand over time (RCF, Box V.5, pg 179).

⁵ *Inter alia*, expanded eligibility for external corporate borrowings (viz. Housing Finance Companies, Port Trusts and maintenance-repair-overhaul-freight firms), removal of end-use restrictions for all but real estate, capital market and equity investments, rationalizing cost structures and changing permitted ECB liability-equity ratio provisions, withdrawal of minimum three-year residual maturity restrictions imposed in July 2014 upon FPI's g-sec investments with 10 basis points increase in aggregate investment caps to 30% of outstanding stock.



History Matters: How China leverages the Past to Serve the Future

A book review of *How China Sees India and the World* by Shyam Saran

Manoj Kewalramani^{*}

In November 2021, the Communist Party of China (CCP) adopted a landmark resolution on the Major Achievements and Historical Experience of the Party over the Past Century. Prior to this, the CCP had approved only two resolutions on history. The first, approved in 1945, established Mao Zedong's unchallenged authority over the party; the second, under Deng Xiaoping, condemned Mao's 'Leftist' errors and permitted a pivot towards Reform and Opening Up.

In an explanatory note published alongside the third resolution adopted in 2021, General Secretary Xi Jinping was clear that the CCP's approach to history was not an academic exercise. Xi argued that the resolution was important both in "*a practical and historical sense*."

The goal was to "build a broader consensus and stronger unity in will and action" among Party members and society. To do so, it was important to adopt a "rational outlook" for "setting things straight, taking a clear-cut stance against historical nihilism, strengthening ideological guidance and theoretical analysis, and clearing up confusion and misunderstandings over certain major questions in the Party's history."¹

In other words, for the CCP, engaging with history is not necessarily about the past, but a purposeful political endeavour to shape future direction. In his new book, *How China Sees India and the World*, scholar and former diplomat Shyam Saran argues that this instrumental approach to history has been a hallmark of Chinese political life.

The book is a well-researched, extremely accessible account spanning a vast period of history and geopolitical twists and turns. The author traces this Chinese tradition of leveraging history as a political instrument back to the Zhou Dynasty (1046-256 BCE). Saran writes that the Zhou assumed power in a bloody, violent change of guard, but soon cloaked themselves "in the mantle of benevolent rule" and "rewrote the history of their violent overthrow of the Shang," initiating a tradition of dynastic history-writing. This tradition – of successor dynasties writing the histories of their predecessors to legitimise their reigns – is the impulse animating the CCP's approach to history even today.

A corollary to this is the idea that for Chinese rulers, "there is always a fear of the past to discredit the future." This has led to regimes constructing self-serving narratives and working to ensure that

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these stories are told and re-told, bestowing upon them the aura of fact. Saran's book engages with these stories that subsequent Chinese dynasties and now the CCP have told. He argues that doing so is critical to understand claims of legitimacy and external behaviour.

The central argument of the book is this: the narrative of China's history as one of the linear growth and expansion of a benevolent, civilising empire (an "eternal China" that merely experienced minor, episodic interruptions) and its existence as the Middle Kingdom (the centre of Asia, with tributaries acceding to its power) is a political construct that does not accord with facts.

In dismantling this narrative, Saran sometimes uses a scalpel, carefully slicing through the minute details of the past to identify inconsistencies and wilful mis-representations; and sometimes, he uses the pickaxe, bringing down the very edifice.

"There is little in history to support the proposition that China was indeed the centre of the Asian universe, its economic hub, commanding deference among less civilised states on its periphery...its contemporary rise is indeed remarkable, but history does not give it the centrality it claims," writes Saran.

For instance, he argues that at different times in the past, there existed multiple, independent power centres across Asia. These included Japan, the Chola empire in India, and Southeast Asian kingdoms like Majapahit and Srivijaya, to name a few. The author argues that when it comes to cultural influence, Indian civilisation had a far deeper impact on China and East Asia, through the export of Buddhism as compared to Chinese dynasties. Even when it comes to trade, he debunks the modern-day projection of the Belt and Road Initiative as a revival of China's centrality to the global economy, as was once the case through the ancient Silk Road.

Saran writes the Silk Road was a "network of intersecting caravan routes which connected several countries and along which several commodities were transported and traded." He argues that Chinese empires were never at the heart of these ancient trading routes. On the contrary, Indian trading communities (in the form of Gujarati and Tamil merchants), along with Arab and Central Asian traders, were key to exchanges along the routes. Chinese traders, in contrast, "rarely ventured too far from the Chinese heartland," Saran writes. "*The Road is not a revival of some historical role of China as a great trading power. An imagined history is being put forward to seek legitimacy for China's claim to Asian hegemony*", Saran adds.

This notion of the Chinese heartland is also critical to the author's broader argument. Saran explains that a "distinctive Chinese identity" first emerged among communities settled in the middle reaches of the Yellow and Yangtze rivers, dating back to around 1500 BCE. This "civilisational core," he argues, expanded over time to encompass mountainous and forested terrain toward the south and south-west, and was settled by the Han people from the north.

Saran writes that the political ideas and experiences of the settlers in this heartland region were shaped by the difficult early encounters that they had with communities along the periphery. These comprised nomadic tribes associated with the Xiongnu, based in what is present-day Mongolia, to the Tibetan empire and Central Asian kingdoms in the west. The Hans, Saran explains, met these challenges through a mix of military coercion and diplomacy, which involved marriages for alliances, tributes and grant of high honours. He argues that the history of coping with these constant threats led to a sense of the Middle Kingdom complex, "a sense of superiority over these ethnicities on the periphery."

In other words, the Hans saw these communities as less civilised and their accommodation – often a decision in political expediency – was explained and internalised as a civilising activity. At this point, it is important to note that Saran views the Hans not necessarily as an ethnically homogenous group, but rather as a group united by cultural homogeneity, reinforced by shared attitudes and a unified script. This construct of cultural homogeneity was not only critical for subsequent Han-dominated dynasties to usurp the legacies of (what were essentially) foreign rulers, but is also at the heart of the present-day assimilationist policies of the CCP with regard to ethnic minorities.

The key examples that Saran offers are the eventual assimilation of the rule of the Mongol Yuan Dynasty and the Manchu Qing Dynasty as *Chinese dynasties*. The author argues that in both these instances, a massive empire was established incorporating different territories and multiple ethnicities, with the Chinese heartland being merely one of the territories within the empire.

Later-day Chinese nationalists and reformers during the late 19th and 20th century weaved this legacy of the Yuan and the Qing as essentially Chinese dynasties to construct a new national identity. In doing so, they also constructed a sense of historical territory linked to the lands controlled at different times by these empires.

This has implications for present-day territorial claims by Beijing. For instance, Saran argues that while Tibet did fall to Mongol rule under the Yuan dynasty in the 13th century, the Tibetan leadership's relationship with the Mongol ruler was not one of a "Chinese-style tributary." Rather, there was an "emperor-preceptor or patron-priest" relationship. Moreover, during the Yuan dynasty's rule, "*Tibet's relationship was with the Mongols and not with the Han. Tibet was part of the Mongol empire, as were China, Korea and Vietnam. When the Mongol empire ended, Tibet shed the Mongol yoke and became an independent kingdom under King Changchub Gyaltsen of the Phagmodru dynasty.*"

Likewise, during the Qing rule, while Tibet "was made a tributary state of the Qing empire," it is important to note that the Qing was a Manchu empire. The author argues that "*neither the Mongols nor the Manchus considered Tibet as part of China. It was part of their empires, just as China and other countries on the periphery were.*"

This, Saran says, is obfuscated in the modern narrative from Beijing, which claims that Tibet since ancient times has been governed by political authority from the Central Plains or the political authority of the Chinese central government. Pointing to this, the author calls for a need for careful study and vigorous contestation of the Chinese narrative with regard to territorial claims, lest they begin to take hold in international discourse as something self-evident.

Apart from the above, as the title suggests, the book offers a fairly broad – yet remarkably detailed – overview of Chinese perceptions of India through the centuries. Saran discusses the deep, religious, cultural economic exchanges between the two civilisations, along with essential differences. For instance, the author points to the diversity of spoken languages in China existing with uniformity in written script, a situation that lent itself to a centralising impulse. In contrast, in India, "spoken Sanskrit was the same as courtly and written Sanskrit whenever it was used, but it could be written in

different scripts," he writes. This led to the emergence of vernacular languages with their own scripts and created a diversity of literary forms and idioms unlike in China.

In addition, while Chinese culture has historically emphasised the importance of the written word, in Indian culture, the spoken word was per-eminent. This has had a significant impact in terms of the documentation of historical records. In fact, often in discussing early engagements between the two civilizations, the author relies on Chinese records of interactions.

The earliest documentary references to India date back to emperor Han Wudi (147 BCE-87) dispatching an envoy, Zhang Qian, to the west in order to seek an alliance against the Xiongnu. After a tumultuous trip of 13 years, which entailed being captured by the Xiongnu, Zhang returned with information about countries in the west, including one called Shendu. This began the process of cultural and religious exchanges, with Chinese monks travelling to India to learn and acquire Buddhist texts.

In these early records, historically, there existed a deep sense of admiration for India as a land of wisdom, spirituality, and learning. In addition, records of diplomatic and trade embassies point to Indian kingdoms being seen as thriving economic centres. But this sense of appreciation vanished over the centuries. A number of factors contributed to this. These ranged from the dwindling influence of Buddhism in India around the 11th and 12th centuries (which in turn led to China emerging as a key centre for Buddhism); the perception of colonised India as a weak, slavish nation; the encounters with Indian soldiers who were part of the British forces that launched campaigns in China through the mid- and late 1800s; the role of Indian trading communities in the opium trade; the perception of the Indian freedom movement being submissive rather than revolutionary; and view of post-independence India as an inheritor of Britain's colonial legacy.

These perceptions, Saran argues, continue to play a role in modern-day Chinese political imagination, impinging on ties between the two countries even today. The present-day India-China relationship and geopolitical churn is the focus of the final few chapters of the book.

Examining Chinese diplomacy and discourse, Saran argues China today is simultaneously a deeply insecure and extremely confident power. He explains that on one hand, Beijing believes that the global balance of power began to shift in its favour following the 2008 global economic crisis. The COVID-19 pandemic, the rise of populism in the West, and post-Trump political turmoil in the United States has accelerated this trend.

China is no longer defensive about its Communist ideology and authoritarian state. Rather, it believes that it can offer developing countries another option for advancement. This situation presents difficult challenges for India, given Beijing's perception of its historic centrality in a hierarchical Asian political order. On the other hand, stability continues to be a critical concern for the CCP, particularly with growth decelerating and the sense of ideological contestation with the West intensifying.

In addition, the implications of Xi Jinping's centralisation of power and authority has created fresh challenges. Sooner or later, there will have to be a transition of power. How that is managed will impact the CCP's future rule. Consequently, it is useful for New Delhi and others to bear in mind that a China-centric world is not a given. It will take "sustained pre-eminence over a considerable time" to achieve such an architecture – which is not going to be easy, considering that significant power centres exist around the world and in Asia. For India, therefore, Saran argues that a return to

focussing on economic growth and constitutional values will allow it to compete effectively in shaping the regional order and safeguard its national interests.

How China Sees India and the World by Shyam Saran, Juggernaut, India, 2022. Pages 304. ₹640 (Hardcover); ₹608 (Kindle)

Notes

¹ An explanatory address was delivered by Xi Jinping on a landmark resolution on the major achievements and historical experience of the Communist Party of China (CPC) over the past century on 11th November 2021. <u>Full text</u>

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