The journey of Indian finance

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XKDR Forum

23rd November 2023

Abstract

Indian finance went through a first phase of central planning (1947-1992) and a second phase (1992-2016) with conflicting themes of liberalisation and enhanced state control. In the first phase, the financial system was a handmaiden for state control of the economy, directing resources in harmony with the wishes of the government. State control was achieved through government ownership.

In many areas, private financial firms are now important. The full ecosystem of modern finance, with information processing and risk-taking by private persons, blossomed in the equity market. For two decades there was a remarkable policy process that yielded gains in fields such as the equity market, pension reforms, bankruptcy code, etc. But alongside this there was the expansion of 'the administrative state' in the form of financial regulators. Regulators engage in micro-management of products and processes. While there is isomorphic mimicry with many things that look like a financial system, officials retain substantial control over how finance works. In a functional perspective, Indian finance today resembles the environment of the 1980s more than meets the eye.

*This paper is a chapter in *Cambridge Economic History of Modern South Asia*, edited by Latika Chaudhary, Tirthankar Roy, and Anand V. Swamy, forthcoming, Cambridge University Press. I acknowledge the role of conversations with Surendra Dave and Harsh Vardhan that helped in shaping this paper.

Contents

1 Banking 3

2 The equity market 6

3 Other financial firms 8

4 Capital controls 9

5 Bankruptcy 11

6 Monetary policy 12

7 Household finance 14

8 Systemic risk 15

9 The working of financial agencies 16

10 The policy process 17

11 Evaluation 19

Indian finance was built out after independence with bans on private production, public sector firms which were often monopolies, and central planning of products and processes. These levers were used by the state to finance itself and to reshape the allocation of capital in ways that were desirable to the state. From the 1980s onwards, in some respects, economic freedom improved. The emergence of private financial firms created the need for regulatory capacity. Some kinds of state capacity in financial regulation have emerged. The improvements in finance, which came about from the 1980s onwards, were an important ingredient of the growth acceleration.

At the same time, in many respects, the central planning is intact or has worsened. The capabilities of the financial sector have consistently lagged the requirements of the real sector. State interventions in finance have prohibited rational activities, and policy risk has hindered the commitment of private persons in building organisational capacity in private financial firms. State intervention in finance has had deficiencies on objectives and implementation. The intellectual and policy community has been weakened in recent years.

This chapter is organised around ten aspects through which the evolution of the financial system can be understood. An intricate treatment of each of these aspects would merit a book-length treatment which achieves precision on dates, events, sentences of law and statistics about the economy. In this chapter, we seek a strategic sense of this economic history. What were the important changes? How did change come about? How did ideas, interests, institutions and crises interact to induce change? What worked and what didn't? What were the interconnections between finance and the economy?

1 Banking

Hundreds of banks were in operation at 1913, when global economic conditions started deteriorating. The Reserve Bank of India ("RBI") was created in 1934 as a monetary authority, and banks were largely unregulated at the time. Bank failure took place on a large scale in the early part of the 20th century, leading to the Bank Regulation Act (1949) and the initiation of bank regulation at the RBI. Building this regulatory capability with a footprint all across the country is hard, and a spate of bank failures continued. The failure of Palai Central Bank in 1960 led to the establishment of certain deposit insurance capabilities.

The fragility of private banks was accompanied by the emergence of an ideology of state domination. The Communist Manifesto (1848) had famously

proposed *'Centralisation of credit in the hands of the state, by means of a national bank with State capital and an exclusive monopoly'.* Banks were criticised for supporting the financing goals of related parties. The idea of public sector banks gained prominence. This began with the nationalisation of the largest bank, the Imperial Bank, in 1955, which was renamed as the State Bank of India. This was followed by two waves of nationalisation, in 1969 and then 1980, through which the bulk of banking was nationalised. With commonality in regulation and ownership, all banks in India became significantly alike in their products, processes and financial risk-taking. Households trusted government backed banks, and banks gave out credit in ways controlled by the state as owner and regulator.

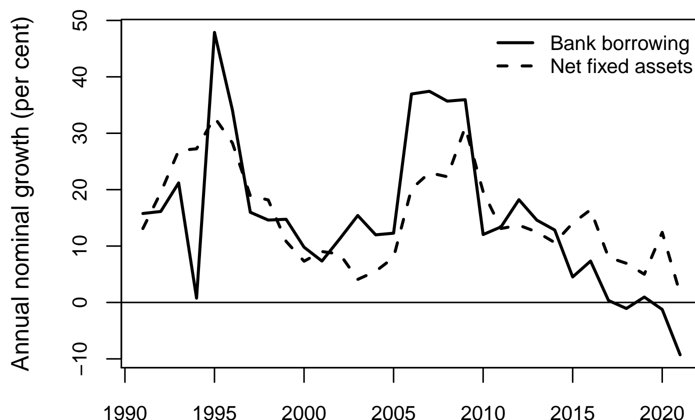
In the contemporary discourse, when a financial system fails to produce certain kinds of products or services, this triggers off a search for the government restrictions that hold back profitable transactions between private financial firms and their customers. At many points in the Indian journey, deficiencies of the financial system were addressed by creating new public sector firms.

In the 1950s, there was a gap in long-term credit. This was sought to be addressed by the creation of 'Development financial institutions' (DFIs). The most important three were ICICI, IDBI and HDFC. Industrial Credit and Investment Corporation of India (ICICI) was established in 1955 with support from the World Bank. Industrial Development Bank of India (IDBI) was established in 1964 and rapidly became bigger than ICICI. IDBI and ICICI dominated long-term financing for firms. Housing Development Finance Corporation (HDFC) was established in 1977 to produce home loans.

Public sector banks, and the DFIs, dominated the credit market. Powers bestowed upon RBI for the purpose of banking regulation were used in three ways. The growth of private and foreign banks was blocked. A system of financial repression was operated: depositors got negative real rates, and banks were forced to lend to the government and to DFIs. Industrial policy was conducted with 'directed credit': banks were forced to lend certain fractions of their assets to chosen targets of industrial policy such as agriculturists or exporters.

Basic features of banking regulation at the time was lacking. Bad assets were recognised well after the date of default, and held at valuations that were well above market value. This induced chronic bank fragility. Figure 1 shows evidence for the large private non-financial firms (the CMIE Prowess database). Investment activity is measured through the growth of net fixed assets and corporate lending by banks is measured through the growth of bank lending, within the firms observed. We see two boom-and-bust episodes

Figure 1 The two booms in firm investment and bank borrowing



in banking, that align with the boom-and-bust in corporate investment.

These cycles were partly rooted in optimism and business cycle expansion. Monetary policy and banking regulation came together to foster these surges. Currency pegging converted the pro-cyclicality of capital flows into pro-cyclicality of interest rates. In each boom, real rates declined and fuelled the boom. Weaknesses in bank regulation accentuated each boom: once banks were caught up in the moment, and poor loans were given, regulation was structured to hide this news.

Each of these booms in bank lending was followed, with a lag, by a crisis in bank capital. Bad asset recognition and provisioning happened with a lag, and there was inadequate equity capital to absorb the losses. There is no resolution framework for financial firms, so firm failure was addressed by policy makers through creative fire fighting.

Over the 1995-2020 period, in total, about 5 per cent of GDP was injected into financial firms by the state. This induced discontent. The waters of the public discourse were considerably muddied by a class of bad assets that were termed 'wilful defaulters', where it is argued that the shareholders of limited liability firms should have unlimited liability. These developments led to a heightened scrutiny of bad debts by criminal investigation agencies. Equity capital shortfalls, and the increased concerns about personal criminal liability of bank employees, came together to exert a chilling effect upon lending by banks to large firms. An important bankruptcy reform was undertaken in 2016 (Thomas, 2022), but the stance of banks towards corporate credit did not significantly change.

Table 1 Share in total liabilities of the large private non-financial firms

Year	1991-92	2001-02	2010-11	2019-20
Equity	24.03	30.37	37.42	36.83
Banks and FIs	26.51	22.65	20.59	13.41
Bonds and CP	8.15	6.99	2.99	4.83
Foreign borrowing	1.40	2.31	4.29	2.01
Number of firms	2284	7231	19410	24792

How has the evolution of finance impacted on the the evolution of firm financing? Table 1 shows the structure of liabilities of large private non-financial firms, constructed from the CMIE Prowess database. At each year, the average values across three years centred upon the year of interest is shown. This shows that the share of banks and financial institutions dropped sharply from 26.51% in 1991-92 to 13.41% in 2019-20.

2 The equity market

The Bombay Stock Exchange was Asia's first stock exchange in 1874, and this field was quite free of government intervention after 1947. Trading took place through open outcry on the trading floor. There were entry barriers into securities trading with a fixed supply of exchange memberships. The open outcry had low transparency, so the end-users of the market knew little about prices and spreads. This lent itself to customer abuse, termed '*gala*', in the form of adverse prices being charged by brokers to customers for trades.

Trading on the spot market took place with 'weekly settlement', where trading took place through the week, and then one settlement took place. The '*badla*' system offered a leveraged mechanism to not settle at the end of the week. Physical share certificates, and the extent to which these were counterfeited, induced another layer of risk in the trading process.

These practices went with inadequate risk management and market surveillance practices. The BSE was an association of members, with elected managers who faced tugs of pressure from one member or the other to not enforce certain rules. These problems came together into turbulence in the ordinary working of the market. There was a recurrence of stock market scandals, and 'payments crises' where the settlement system broke down.

These problems had been present for many decades. By the early 1990s, financial markets had became more important. The weaknesses of the equity market then created the impetus for one of the most important elements of the Indian economic reforms.

The Ministry of Finance constructed a new stock exchange, the National Stock Exchange (NSE). NSE created a new market mechanism, featuring computerised order matching, the removal of entry barriers in exchange membership, daily settlement, risk management at the clearing corporation, and dematerialised settlement.

There was a remarkable sequence of innovations from the establishment of the NSE in 1992, the onset of electronic trading in 1994, the establishment of the clearing corporation and depository in 1996 and equity derivatives trading in 2000. Equity derivatives in the form of futures and options opened up pathways to efficient leveraged speculation and hedging, while retaining systemic stability. These developments involved a new stock market index, the NSE-50 or 'Nifty' (Shah & Thomas, 1998), and a novel intra-day real-time risk management system at the clearing corporation based on 'value at risk' (Sarma et al., 2003). Once the foundations of electronic trading and derivatives trading were in place, the market rapidly moved up the ladder of capability to algorithmic trading. These changes induced improvements in market quality (Aggarwal & Thomas, 2014; Agrawal et al., 2015; Berkman & Eleswarapu, 1998; Corwin & Schultz, 2012; Shah, 2012; Shah & Thomas, 1996).

Alongside the establishment of NSE, there was a new securities regulator, SEBI, which started rolling out the basics of securities regulation once the SEBI Act was enacted in 1992.

This journey of institution building was a remarkable one in Indian economic history (Shah & Thomas, 1997; Thomas, 2006). In the international experience, new exchanges are generally unable to take liquidity away from the established exchange. NSE was unusual in displacing the BSE (Shah & Thomas, 2000). The leadership of NSE, and the gains associated with electronic trading, help explain this unusual outcome.

The emergence of liquidity in the secondary market reshaped incentives of financiers and entrepreneurs in the early stages of firm formation. An entire pipeline came together, with startups backed by angel investors, which were then sold to venture capitalists, which then scaled up through private equity investment, and then came to the public market as IPOs.

The big fact seen in Table 1 is that equity as a source of capital went up from 24% to 37%, while banks/FIs dropped from 27% to 13%. This reflected the combination of difficulties in banking coupled by the achievements of NSE and SEBI in the 25 years from 1992. Indeed, it is hard to envision successes of the Indian economy in areas such as software (Shah, 2022) without the

new capabilities of the equity market from the mid 1990s onwards.

3 Other financial firms

We have described the emergence of public sector domination in banking and DFIs. That economic policy philosophy was also applied to other important categories of financial firms:

- As with banking, there were many difficulties with failure of private insurance companies in the economic distress of 1913-1947. This was addressed through nationalisation and the construction of a public sector monopoly, the Life Insurance Corporation (LIC) in 1956.
- The mutual fund industry began with a public sector monopoly, the Unit Trust of India (UTI) in 1963. For a while, the securities brokerage firms and the exchange itself were private, but the biggest player on the exchange, UTI, was a public sector firm.
- Finally, pension arrangements (of a certain weak nature) began with the establishment of the Employee Provident Fund Organisation (EPFO) in 1952, alongside laws that coerced private firms to enroll workers and establish contributions into the programs of the EPFO. EPFO embarked on a chronically underfunded defined-benefit scheme, the Employee Pension Scheme (EPS), in 1995 based on advice from the ILO.

In the reforms of the 1990s, insurance and mutual funds were opened up to private sector participation. With pensions, a fundamental reform took place in 2002.

In the case of banking, the regulator (RBI) was already in place, and there was a stroke of the pen reform in the form of opening up banking to private entry. This entry was done extremely cautiously, on account of concerns about high powered incentives of private banks in a context of low regulatory capacity. In the other three industries under discussion here, the legal and regulatory systems did not exist and had to be constructed.

Mutual funds Entry of private mutual funds began with the young SEBI as the regulator. The market share of UTI rapidly declined, to a greater extent when compared with public sector market share in banking or insurance.

Insurance. The foundations were laid by the Malhotra committee in 1994. A new regulator, the IRDA, was established in 1999. There was a capital control which inhibited foreign investment in this field, which hampered the

private industry. There was a long period where private insurance companies gained market share at a glacial rate.

Pensions. The most fundamental transformation was achieved in the field of pensions. There was an intellectual ferment in this field in the late 1990s, led by 'Project OASIS' which was established by the Ministry of Social Justice and Empowerment, Invest India Economic Foundation and Surendra Dave (Dave, 2006; Sane & Shah, 2023; Shah, 2006). New ideas in pension reform coalesced into the idea of the 'New Pension System', a portable individual account, defined-contribution system. This thinking was assisted by the fact that state government finances were under immense stress in the late 1990s, and there were some episodes of state governments failing to pay pensions on time.

The NPS featured novel ideas, by world standards, in order to keep down costs. Centralisation of recordkeeping into a single recordkeeping agency (NSDL) was a way to keep costs down and enhance portability between fund managers. Index fund management was procured using auctions, as a way to keep the costs of fund management down. A new regulator, PFRDA, was established to oversee these private providers.

In December 2002, the union government decided to build the NPS, and to shift all new recruits into government after 1/1/2004 into the NPS. There would thus be a 'transition generation' where the exchequer would have elevated pension expenditures, on account of paying pensions to the old and contributions to the young. The NPS was a fundamental and structural reform of pension arranagements. A process of reversal of this reform began in 2022 with some state governments trying to undo this reform.

There is an important link between 'other financial firms' described here, and the financing of government borrowing. The Indian system of financial repression, at first, relied heavily on forced purchases of government bonds by banks. The share of banks in government borrowing has declined, with a combination of weak growth in banking and a small retreat of financial repression. Insurance companies and pension funds have become particularly important in the borrowing of the government.

4 Capital controls

Exchange controls had been introduced in India as a temporary wartime measure in September 1939. The Foreign Exchange Regulation Act ("FERA") was enacted in 1947. In 1973 it was overhauled to become more restrictive,

with imprisonment for violators. Indian capital controls law has the framework where all cross-border activities are banned by default, and laws define a limited set of specific exceptions. The 'Enforcement Directorate' ("ED") was established to police violations.

Liberalisation of capital controls was attempted with the transition from FERA to the Foreign Exchange Management Act (FEMA) in 1999. However, FEMA continued to have the framework that all cross-border activities are banned unless explicitly permitted. At first, FEMA got down from criminal liabilities to civil liabilities. But after 15 years, criminal liabilities were back into FEMA. The capital account thus remains a world of extreme administrative control upon all activities, with rules that vary by asset, foreign counterparty, Indian counterparty, etc. The Enforcement Directorate runs hundreds of raids in each year, policing the economy for violations of FEMA.

In 1993, the government decreed a new world of current account convertibility. However, a careful examination of the legal situation suggests that such a transition did not take place. At the level of economic principle, convertibility on the current account should mean the freedom to convert between rupees and other currency for use in current account transactions without restrictions. This was not the case in 1993 and it is not the case today (Shah & Zaveri-Shah, 2021).[1] The capital controls system acts as a steady source of friction, rent-seeking and policy risk for economic agents, not just for the financial account but for all cross-border activities. For a recent example, see Das and PM, 2022.

At a practical level, there is openness for equity flows, for portfolio flows into listed shares and for FDI, though at the cost of substantial payments to lawyers and ensuing policy risk. In recent decades, there was a substantial increase in cross-border economic engagement across a variety of metrics (Shah & Patnaik, 2013) such as gross flows on the current and capital account, and the share of large firms who are multinationals (Demirbas et al., 2013). The size of *current account* activity, coupled with modest rates of trade misinvoicing (Patnaik et al., 2012), create large possibilities for large scale capital mobility. These channels have created substantial *de facto* convertibility for the economy. This is reflected in the gains seen in price-based measures of *de facto* convertibility (Aggarwal et al., 2021).

Capital controls interlink with monetary policy strategy. The Indian au-

[1] On a related note, financial economic policy decisions of the Indian state recently blocked access for residents to subscription services from overseas (Sane et al., 2023), which is inconsistent with the idea of current account convertibility.

thorities have tried to navigate the 'impossible trinity' – the idea that once the capital account is open, exchange rate policy intrudes upon autonomy of monetary policy rate setting – with limited success. Exchange rate policy objectives have often not been met, because the required monetary policy distortions were large enough to be unpalatable Another way to achieve exchange rate policy objectives was to tighten the capital controls, to reverse the gains in *de facto* financial integration, which was also unpalatable (Pandey et al., 2019; Patnaik & Shah, 2012; Shah, 2015).

5 Bankruptcy

Legislation about companies in India dates back to the Joint Stock Companies Act (1850) which led up to the Companies Act (1857), which was rewritten many times including in 2013. Creditors rights were weak: neither could creditors repossess collateral, nor did company law feature a bankruptcy mechanism. The CEO of HDFC famously said in 2001 that they had never repossessed a house. The first stage of bankruptcy reform was the SARFAESI Act, 2002, which established the right of the lender to repossess collateral.

A bankruptcy process involves (a) Establishing a committee of creditors, with votes in proportion to the magnitude of debt, and (b) Expropriating the shareholders, giving control of the defaulted company to the committee of creditors. In the absence of the institutional mechanism governing firm failure, there were messy *de facto* arrangements that sprang up on the ground, e.g. Mishra, 2015.

In the absence of this bankruptcy process, the RBI played a leadership role in attempting to bring banks (though not other lenders) into some multi-lender cooperation when faced with default. While there was an alphabet soup of these arrangements (e.g. CDR, 5/25, SDR, S4A), they worked poorly. Failures in banking regulation implied that banks tended to carry stressed assets on their balance sheet at an over-optimistic value, which hindered their incentive to vigorously enforce against a borrower.

Thinking on bankruptcy was improved in the Financial Sector Legislative Reforms Commission (FSLRC), 2011-2015, in two respects. First, FSLRC obtained clarity on the overall question of firm resolution, which was broken up into two parts: the resolution of financial firms with unsophisticated consumers (which required a more state-led approach, analogous to the US FDIC), vs. the resolution of all other firms (which required the bankruptcy code). Second, FSLRC showed a new level of capability in the expert com-

munity to tackle a complex problem and draft a sophisticated law.

After FSLRC was completed in 2013, the Ministry of Finance moved on the problem of the bankruptcy code. The Bankruptcy Legislative Reforms Commission (BLRC) led by T. K. Vishwanathan was established. As with FSLRC, a small team of experts and researchers wrote the report and a draft law. A modified version of this law was enacted by the Parliament as the Insolvency and Bankruptcy Code ("IBC"), 2016.

The IBC embeds a healthy skepticism about how many elements of procedural detail will actually function; malleability was achieved through delegated legislation. This inspired the creation of a new regulator, the Insolvency and Bankruptcy Board of India (IBBI). An unusual level of thinking and effort was put into the construction of the IBBI (Narain, 2016).

The bankruptcy reform faced many difficulties (Thomas, 2022). Even though the law was designed in a way which minimised the role for judicial discretion, courts are essential in the working of any bankruptcy process, and the Indian legal system is weak. The political system was alarmed and reacted adversely when low recovery rates were obtained from the early cases. Banks are important players in the committee of creditors, and have an upward bias in their internal value of assets through frailty of banking regulation. This takes away the incentive for banks to behave optimally and recover value from the bankruptcy process.

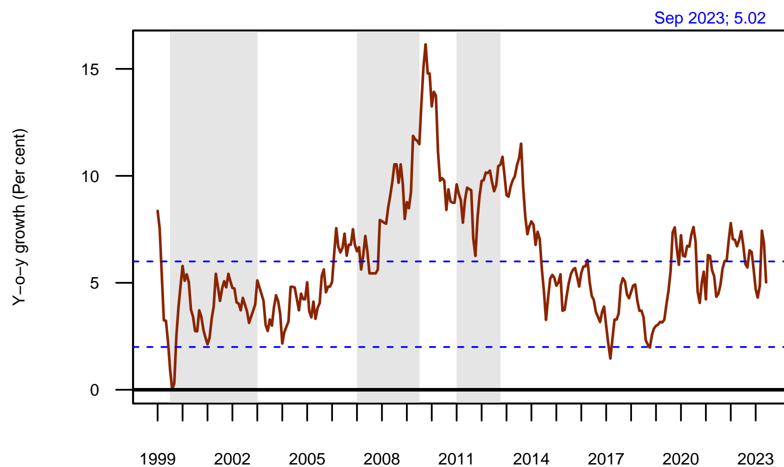
These problems have come together to hamper the recovery rates obtained from the bankruptcy process. At the same time, even with these flaws, bankruptcy filings have changed the payoff diagram as viewed by a borrower, and may improve credit culture in coming years.

6 Monetary policy

The preamble to the RBI Act, 1934, described the RBI as 'a temporary measure'. The RBI has an explicit mandate to be the investment banker for the government. Three objectives competed for attention in the temporary RBI: exchange rate policy, inflation control and cheap financing for government debt.

Through the early decades, there was a lack of monetary policy strategy. RBI had all discretion and no rules; it felt free to pursue multiple objectives, based on multiple indicators, and using multiple instruments. This gave low predictability in the eyes of an external observer.

Figure 2 Headline inflation (year-on-year change of CPI)



The first milestone in the modernisation of the monetary policy arrangement was the 'Ways and Means Agreement' (RBI, 1997). This was a contract signed between the Finance Secretary and the RBI Governor, which put an end to deficit financing by money creation. This rule graduated into Parliamentary law in the FRBM Act, 2003.

Alongside this there were debates about exchange rate policy and the puzzle of establishing an objective for monetary policy (Shah, 2008; Shah & Patnaik, 2010). Growing *de facto* international financial integration, as described in Section 4, was creating an increasing conflict between currency intervention and monetary policy autonomy.

Capital inflows are pro-cyclical (more money comes into India in good times). When RBI purchases dollars in order to stabilise the exchange rate, it converts the pro-cyclicality of capital flows into pro-cyclicality of monetary policy. This was particularly apparent in the business cycle boom of the early 2000s which attracted capital flows. Exchange rate policy forced low interest rates, a bank credit boom and an inflation crisis. Headline inflation took off in early 2006 and there was a sustained inflation crisis all the way to influencing the general election of 2014. This inflation crisis, and the problems of currency policy during the taper tantrum (Shah, 2015), helped shift the consensus away from the status quo.

Monetary policy reform was a priority at the Ministry of Finance from late 2013. At RBI, there was an Urjit Patel committee on the monetary policy framework. On 20 February 2015, a 'Monetary Policy Framework Agreement'

(MPFA) was signed between the Finance Secretary and the RBI Governor. This established 4% inflation as the objective of RBI. This was followed by an amendment to the RBI Act in 2016, which enshrined this objective into the law, and also established the Monetary Policy Committee (MPC). Fittingly, this amendment also removed the phrase 'temporary measure' from the preamble of the Act.

A central feature of establishing the institutional capacity for monetary policy is exchange rate flexibility. This creates conditions for high *de facto* capital account openness (that is required for prosperity) and the ability of monetary policy to respond to domestic economic conditions. When the methods of Zeileis et al., 2010 are applied, in order to obtain an empirical economic history of the exchange rate regime, we see an increase in exchange rate flexibility in 2004 but not when the inflation targeting regime came about in 2015.

There is now a new level of public pressure that holds RBI accountable for delivering on the 4% inflation target. The institution is being gradually reshaped to perform towards this objective. As an example, the inflation crisis visible in Figure 2 from 2006 to 2013 is now less likely. But the exchange rate regime measurement reminds us that there is more to obtaining institutional capacity for monetary policy than amending a law.

7 Household finance

In the initial conditions, there was low participation in formal finance at the household level. Households largely obtained credit from moneylenders, shopkeepers, and other such informal channels. Banks were forced to give loans to persons thought deserving by policy makers through 'directed credit', and there was a steady incidence of debt waiver programs from the government (De & Tantri, 2013; Gine & Kanz, 2018).

Tremendous changes in the environment for household participation in finance have come about in recent decades. Banks and other financial firms built out distribution all over the country, assisted by information technology. Palta et al., 2022 show that in the 2014-2022 period, almost all households had atleast one formal financial connection in the form of a bank account.

Lenders are able to repossess collateral from individuals. Loans against cars or loans against houses, which used to be relatively rare, have proliferated and become competitive markets. A major change of this period was the rise of credit bureaus from 2004. Credit bureaus created conditions for households

and financial firms to enter into debt contracts and vastly enhanced formal sector access to credit. While banks lent more to households in this credit-score enhanced world, improved business models in lending particularly came from the new class of 'Non-bank finance companys' (NBFC).

Business model innovations based on joint liability enabled growth of 'micro finance', and that became another line of attack through which financial innovation connected into households. This process experienced turbulence with government bans (Sane & Thomas, 2016) and hiccups in access to financing in the procession of financial crises.

By the early 2010s there was an increasing awareness of problems of consumer protection and mis-selling by financial firms who had setup large agent networks with high powered incentives. A small academic literature came up about these problems (Anagol et al., 2017; Halan et al., 2014; Malhotra et al., 2018). The old environment with under-motivated employees of public sector financial firms morphed into hard-driving employees of private financial firms (Sane & Halan, 2017). These problems shaped the government committee process (Swarup, 2010) and the legal thinking on consumer protection in finance, in FSLRC.

After the 9/11 attacks, the US Treasury pushed countries into 'Anti money laundering' (AML), 'Countering the Financing of Terror' (CFT) and the 'Financial Action Task Force' (FATF). Within India, these global initiatives morphed into relatively extreme responses by financial regulators, and the establishment of the Prevention of Money Laundering Act (PMLA), 2002, with the associated 'Enforcement Directorate' that now enforces against violations of the PMLA and of FEMA. These initiatives have given little by way of improved enforcement against terrorism but have hampered access to finance for many households, and introduced new threats of state action in a low rule of law environment (Bailey et al., 2021; Neumann, 2017).

8 Systemic risk

In an advanced economy, systemic crises – where the working of the financial system is impaired as seen by real sector users of the financial system – are relatively rare. Under normal circumstances, financial market liquidity is deep and robust.

Internally-generated crises intruded upon the working of the Indian financial system in 1992, 2000 and 2012. The 2008 global crisis had significant spillovers in India and has been studied in some detail (Aziz et al., 2008;

Iyer, 2010; Patnaik & Shah, 2009-10). In 2018 the failure of IL&FS triggered off a crisis in the bond market and NBFC financing. In 2013 a financial crisis was triggered off by the currency defence. These six events (1992,2000,2008,2012,2013,2018) impinged on a broad array of financial firms and sub-industries, and imply a an average systemic crisis incidence rate of about once in each five years. Alongside this, there have been many smaller events. For example, when Andhra Pradesh banned micro finance firms in 2010, all across the country, micro finance firms lost access to upstream finance and there was a crisis in that sector.

Systemic risk is more prevalent in Indian finance than is the case in advanced economies. The consistent delivery of sound liquidity and the pricing of risk has not come about. In the terminology of Avinash Persaud, 'liquidity black holes' abound in India. Borrowing short term with the expectation of rollover is more risky.

Global thinking on systemic risk has been imported into India. However, the problem in India lies in the poor liquidity and resilience of liquidity, owing to difficulties of financial sector development. This manifests itself in a regular procession of systemic crises.

9 The working of financial agencies

After independence, the main strand of financial economic policy emphasised the establishment of public sector companies or even monopolies (PSU banks, DFIs, LIC, UTI, EPFO). Under these conditions, the job of regulators was relatively limited. Regulation involved banning private sector participation, and participating in the central planning process.

It was only in the 1990s and 2000s that financial economic policy started thinking about the regulation of private financial firms, on market failure and the appropriate state interventions that could help foster a better functioning financial system. The realisation gradually arose about the limitations of the financial economic policy process, and in particular, the difficulties of state capacity in financial agencies such as regulators.

A state function is hard to perform well when it has (1) A high number of transactions; (2) High discretion in the hands of front-line officials; (3) High stakes for private persons and (4) High secrecy (Kelkar & Shah, 2022). Financial regulation is a difficult task for a state organisation, as it checks all these four boxes.

Sahoo, 2012 emphasised that financial regulation in India is a particularly difficult problem as regulators are constructed as 'mini-states' which fuse legislative, executive and judicial powers. This violates the doctrine of the separation of powers, which is part of the basic structure of the Constitution of India. The concentration of power seen in India is more extreme when compared with the debates around 'the administrative state' seen in advanced economies.

The failings of regulators have run in two directions: failures of the rule of law (with punishments being inflicted arbitrarily upon some), and failures on central planning (where minute details of products and processes are controlled by the regulator). Both strands of abuse have imposed important policy risk upon firms (Ananth, 2018; Regy, 2017).

In the early years, the judiciary was relatively indulgent towards difficulties these difficulties. In recent years, the judiciary has reversed the actions of TRAI on the calls dropped regulation and RBI on the ban of cryptocurrencies. This shifting jurisprudence may hold important implications for the future (Sane et al., 2023).

Knowledge on normative regulatory theory has emerged in India, measuring and diagnosing the difficulties of the regulators, and seeking to achieve state capacity through better foundations in constitutionalism and the rule of law.[2]. The FSLRC process (2011-2015) was an important part of this (Patnaik & Shah, 2015; Roy et al., 2019). This knowledge has thus far had relatively little impact on the actual working of financial regulators.

10 The policy process

The key events of this period are summarised in Table 2. We see a clean separation between the 1947–1991 and then the 1992–2016 periods. Many elements of this history are quite remarkable. Financial economic policy is one of the relative success stories in Indian economic reform.

There was an interplay between private profit obtained by establishing legitimate businesses vs. profits obtained through malfeasance. Three kinds of malfeasance were : collusive loans, ponzi schemes and other mechanisms to cheat investors, and wielding the levers of regulation at exchange institutions to enable market abuse.

[2]Elements of this literature include Aggarwal and Zaveri, 2019; Aggarwal et al., 2020; Burman and Zaveri, 2017–2018; Goyal and Sane, 2021; Krishnan, 2021a, 2021b; Sane and Vivek, 2022

Table 2 Chronology of major events

Date	Event
1934	RBI launch
1949	Bank Regulation Act
1952	EPFO launch
1955	Nationalisation of Imperial Bank, renamed State Bank of India
	ICICI launch
1956	LIC launch
1963	UTI launch
1964	IDBI launch
1969	14 banks nationalised
1977	HDFC launch
1980	6 banks nationalised
1988	Launch of non-statutory SEBI
1992	Securities market crisis
	SEBI Act
	NSE launch
1993	Announced current account convertibility
1994	Equities trading at NSE launched
1995	Launch of Employee Pension Scheme (EPS) by EPFO
1996	Nifty launch
	NSCC, NSDL launch
1999	FEMA Act
	IRDA launch
	SAT launch
	Dave report on pension reforms
2000	Crisis at UTI, BSE and CSE
	Equity trading put on rolling settlement + derivatives
2002	NPS replaced DB pension for civil servants recruited after 2004
	SARFAESI Act
2004	Kelkar committee, Ministry of Finance for the 21st century
2006	RBI Amendment Act, gave powers over fixed income and currency
2007	Percy Mistry report on international finance
	Payments and Settlement Systems Act
	Launch of first Gold ETF
2008	Raghuram Rajan report on domestic finance
2012	NSEL crisis
2013	PFRDA launch
2015	B. N. Srikrishna FSLRC report and draft Indian Financial Code
	Monetary Policy Framework Agreement signed
	FMC merged into SEBI
	Bill for bond market and debt management tabled and withdrawn
	Criminal liabilities back in FEMA
2016	RBI Act with inflation targeting and MPC
	T. K. Vishwanathan report on bankruptcy reform (“BLRC”)
	Insolvency and Bankruptcy Code (“IBC”)
2022	Some state governments reversed the NPS reform.

While voters do not care about financial policy, private persons and officials do. The power of the administrative state in India implied that bureaucratic politics was important. Civil servants in a financial agency have tenure, they identify with the aspiration for greater arbitrary power in the hands of the agency, and they work in favour of enlarging the turf of the agency. The impediments to progress were profit-seeking private persons and established bureaucracies in financial agencies.

When progress was obtained, it involved continuity in a financial reforms community. This comprised persons in the financial industry, in exchange institutions, in financial agencies, in academic institutions and in the Ministry of Finance. This community debated the points of pain, and the long-term strategy, to form a working consensus. While many elements of the chronology look suspiciously like a grand design, the journey was an incremental process of evolution based on the constraints felt in the day, with an interplay of ideas, interests and institutions (Krishnan, 2023).

While many knowledge products mattered in this journey, an important focal point was the 'expert committee' process. Some of the important committee reports were (Aziz, 2008; FSLRC, 2015; Kelkar, 2004; Mistry, 2007; Rajan, 2008; Sinha, 2010; Srikrishna, 2013; Swarup, 2010; Viswanathan, 2015). These reports sifted through the debate, brought a few key ideas to the fore, and helped reshape the priorities of policy makers.

This phase of financial reform came to an end when this policy community was dismantled, with a combination of staffing changes, investigations by agencies and regulators, and enforcement actions against key persons. These developments should be seen as part of the larger changes taking place in the Indian policy landscape (Baru, 2021), and have an interesting correspondence with similar changes that were seen in countries like Russia and China (Seddon, 2022; White, 2022). Some areas of difficulty have consequentially arisen in the following years. As an example, many states announced a reversal of the NPS reform. The first settlement failure at NSE, and the first settlement failure in the Indian equity market after a gap of 19 years, took place in 2019 (Varma, 2019).

11 Evaluation

In the new vision of greater economic freedom, if the Planning Commission was not going to guide the allocation of resources, the financial system had to come to the fore.

The full ecosystem of the financial system emerged in one area: the equity market. The equity market has blossomed with the full apparatus of the IPO market, the equity spot market, derivatives trading, algorithmic trading, *de facto* convertibility for foreign investors, no entry barriers into trading, no entry barriers into intermediation, and the supply chain from angel investing to venture capital to private equity that feeds into the IPO market. The equity market features private persons that take risk in speculative positions, and large profits/losses are made. Onshore equity market activity interacts with an important derivatives market overseas, which has both exchange-traded and OTC trading elements.

New industries like the software industry were financed by a new set of financial players. Some products, like car loans or home loans, have become commonplace. And yet, on the three dimensions of growth, stability and inclusion, there are many difficulties. The difficulty lies in the extent to which the financial system is, itself, in the grip of central planning. Every detail of products and processes is controlled by the state. A sound financial system requires forward-looking speculation by free economic agents, but this has often been lacking.

In many parts of finance, there is isomorphic mimicry: organisations and market arrangements that look like a financial system, while the actual foundations of risk-taking and speculation are absent. As an example, the bond–currency–derivatives nexus is a simulacrum featuring prices, trading screens, electronic trading, clearing corporation, depository, etc. But the trades of private self-interested persons do not determine the prices on these screens. Most financial firms and most financial persons are blocked off from trading on the market. A wide variety of rational trades such as short selling or derivatives trading are proscribed or banned. Most securities have low liquidity. At heart, bond prices are largely controlled by officials.

Public sector companies have receded and industries with multiple competing private firms have emerged. However, each regulator is a central planner, where minute details of products and processes are controlled. In many cases, the government even controls the names of persons appointed into leadership roles in these financial firms. Under conditions of central planning, low rule of law, and high punishment, individuals in private firms are deferential to the written and spoken wishes of government officials. This gives a financial system that resembles a world of obedient public sector financial firms in many respects.

The economic history of Indian finance thus summarises into a Phase I with central planning, 1947–1991, followed by a Phase II (1992–2016) with a para-

doxical combination of greater liberalisation in some respects coupled by the establishment of extreme central planning by regulators.

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