India at 75: Replete with Contradictions, Brimming with Opportunities,

Saddled with Challenges – Viral V Acharya, NYU Stern School of Business[1]

Abstract. I present a perspective on where the Indian economy stands right now. I acknowledge the contradictions that have arisen given the divergent growth path of urban, formal or (stock-market) listed India relative to rural, informal or unlisted India. I also focus on the country's immense opportunities in expanding the digital footprint of finance to last-mile borrowers. I present novel facts on the rising industrial concentration, drawing out its historical evolution, the channels that have caused it to rise recently, and its implications for product price markups and inflation. I recommend that to restore industrial balance, India increase overall competition by reducing import tariffs and reduce the pricing power of its largest conglomerates. I also propose that to restore macroeconomic balance, India reduce fiscal deficit and public sector borrowing requirement as well as rein in inflation, address gaps in skilling and education, and restore female labor force participation.

I. Replete with contradictions

India is complex and can be hard to fathom. To illustrate this enduring fact, I start by presenting four contradictions – or just counterintuitive or not-so-obvious juxtaposition of phenomena – currently at play in the economy.

i. Stock market vs real economic performance: Perhaps the most salient contradiction around India concerns its staggering post-COVID stock price run-up relative to the strength of its economic recovery, both in an absolute sense as well as relative to other Emerging Market (EM) economies. For instance, the large plus mid-cap Indian stock market (MSCI) index has risen since January and April 2020 by 75% and 100% respectively (until March 2023), whereas the corresponding EM ASEAN (MSCI) index has been flat and risen by 50% only.

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This *financial* outperformance stands in stark contrast to India's *real* economic underperformance since the pandemic (Chinoy and Jain (2023)). Its GDP level is still 6% below that implied by the pre-pandemic trend applied to Jan 2020 GDP. The employment to population ratio has stayed just above 50% in the last three years as per data from the Periodic Labor Force Survey (PLFS) but has fallen from around 40% prior to the pandemic to 37% as per data for Center for Monitoring Indian Economy (CMIE). The private consumption path remains below pre-COVID potential path as per data from the Ministry of Statistics and Programme Implementation (MoSPI), and household spending plans – though improving – still remain below pre-COVID levels in the Reserve Bank of India's consumer confidence surveys. This scarring, even three years post the pandemic, has been in spite of the services exports boom in the post-pandemic recovery and pent-up consumer demand having now played out fully. The weak economic performance reflects the so-called K-shaped nature of the recovery wherein urban and formal India recovered particularly well but rural and informal India lagged behind (as explained below). It likely also reveals the pre-pandemic weaknesses.

Contrasting this, however, is the fact that India is projected to be a bright spot in the world economy going forward (together with China). For example, International Monetary Fund's World Economic Outlook projections in April 2023 for the year 2023 and 2024 for India are respectively 5.9% and 6.3% (5.2% and 4.5% for China). Importantly, even if on a lower base post pandemic as explained above, India is projected to accelerate, while advanced economies (and even China) decelerate.

ii. Urban versus rural and formal vs informal India: Depending on which part of India one talks about, it is either booming (urban and formal sector) or it still remains scarred from the pandemic (rural and informal sector). Since the pandemic, operating profit-to-sales gap has opened up widely between large firms (+1.5%) versus small firms (-0.5%), the latter being defined as having less than 50 million INR or $60,000 in capital (Bhandari and Chaudhary (2022)). Besides the direct effect of lockdowns, smaller firms have been hit thereafter by commodity price rise impacting their (large) share of raw material to sales. As a result, while large manufacturing firms have been able to retain their size, small manufacturing firms have contracted by 14% (again, see Bhandari and Chaudhary (2022)). The performance of the listed

large companies has been stellar and they have been able to grow significantly, in part at the expense of smaller firms, explaining also the financial-to-real lack of congruence flagged above.

Why does this divergence matter? Small firms and establishments are important in India for employment. In fact, as is the case in many other countries like the United States, they contribute to over 40% of overall labor in India. Separately, 40% of labor in India is also in agriculture (Bhandari and Chaudhary, 2022). Both small firms and agriculture tend to have a greater presence in rural than in urban India. Hence, the divergent performance of large and small firms has immediate implications for urban and rural demand. In particular, weak rural demand is seen notably (Chinoy and Jain (2023)) in (i) rural unemployment insurance demand (demand for work under Mahatma Gandhi National Rural Employment Guarantee Act – MGNREGA – Scheme) doubling at the onset of pandemic and remaining elevated for more than two years thereafter before gradually normalizing to pre-pandemic levels, and (ii) sales of 2-wheelers significantly under-performing those of passenger vehicles and ultra-premium bikes. In turn, while wages in urban India remain elevated far in excess of inflation rate, rural wages even if increasing nominally have been outpaced by inflation for most of 2022. This fall in real rural wages has interacted with other shocks to weather and commodity prices to create a weak rural, informal, small-firm economy.

iii. Goods inflation in India: Demand for goods in India has remained weak post the pandemic, even as services demand has grown. However, goods prices in India have remained elevated, even after global goods inflation softened in 2022 as supply-chain issues eased. Indeed, goods inflation momentum in India is positive whereas its global counterpart is negative. What explains this lack of congruence between demand and prices, and between India and the rest of the world? Analysts argue that goods inflation in India is in fact likely to persist as margins of manufacturers in India are substantially high due to one, their protection via tariffs, and two, their market power from rising concentration. In contrast, tariffs and margins in services sector are smaller, even though there are emerging signs of concentration in some services sectors too such as in telecom.

iv. Improved and deterring-defaults, but under-recovering, bankruptcy resolution process: Depending on who you speak to, the Insolvency and Bankruptcy Code (IBC), enacted in 2016 and operationalized since 2017, has been yet another failure in corporate insolvency resolution or a resounding success.

The critical view of the IBC stems from the facts (see Gupta, Jain, et al., 2021) that (i) Debt in India continues to perform closer to equity as lamented by Vishwanathan (2018), recovering only 39% for resolutions under the IBC. The recovery rate comes down to only 24% if the largest nine cases are excluded. This makes recoveries for bank loans in India virtually half of the global average; (ii) Average time to resolution since filing of a case has been 561 days, about twice what was originally envisaged; and, (iii) A phenomenal 45% of the cases under the IBC get liquidated. Further, several cases are filed without resolution plans and liquidations recover only 7% for creditors. Unsurprisingly, several aspects of IBC remain under continued legal scrutiny and revision.[2]

The salubrious view of the IBC arises from the observations that (i) Indian banking sector has now brought down its non-performing assets ratio significantly by resolving cases under the IBC, recognizing losses, recapitalizing balance sheets, and now being ready to provide credit for growth at healthy rates and quantities (see point II.v below); (ii) As a result of the banking sector clean-up, capacity utilization of distressed sectors has improved and overall risen to close to 75% at present from a low 60% prior to 2017, when there was an over-supply of zombie firms in these sectors[3]; and, (iii) Fresh slippages into non-performing loans has declined due to an important *deterrence* effect of the IBC and decisive regulatory actions by the Reserve Bank of India, whereby loss of control for business owners and individual promoters has led to a de-leveraging of the Indian corporate sector, with debt to GDP of the corporate sector having declined over a decade from 78% to 50% (Chinoy and Jain, 2023).

[2] The pandemic itself raised difficulties around the IBC resolution path for investors. The government suspended any fresh applications to the IBC for a year after the March 25, 2020 lockdown. Further, the Reserve Bank of India, along with a slew of rate cuts and effective liquidity measures, also introduced debt moratoria on payment on term loans and deferment of interest on working capital (Mohan, 2021).

[3] Kulkarni et al. (2019) report that percentage of zombie firms in Reserve Bank of India's CRILC (Central Repository of Information on Large Credits) bank-borrower credit data was 21.6% during March 2016 to March 2019.

In sum, while creditor recoveries have not been much healthier under the IBC compared to prior bankruptcy codes in India, there has been a meaningful loss of control for asset owners and this has facilitated a healthier credit economy. Grievances around IBC nevertheless abound.

II. Brimming with opportunities

Notwithstanding these contradictions or puzzling facts, there is an unmistakable entrepreneurial spirit feverishly at work in India. It has taken hold over the past decade on the back of India's digital plumbing and equity market deepening. Furthermore, the restoration of banking (and non-banking) sector health to adequate capital standards, along with the advances in digital and FinTech lending, augurs particularly well for credit to small firms.

i. Start-up India: Top candidates from the Indian Institutes of Technology are no longer keen to do a PhD in finance or economics. It is more likely that they want to be an entrepreneur to do and start something of their own, typically related to information technology (IT) services. India is busy churning out unicorns (startups with market valuations above $1 billion) aplenty. This spell has been steady over the past two decades but has accelerated since the foundations of Digital India have been put in place over the past decade, and its canvas has gradually become diverse across a range of sectors but predominantly within services. India now ranks 4th behind US, China, and Europe when it comes to the number of unicorns (Mishra et al., 2021). Over time, market capitalization and proportion of unicorns listed on the stock market has grown.

When the first generation of entrepreneurship was born following the liberalization of 1990's, it featured companies that primarily customized, installed, managed and maintained software such as SAP for the rest of the world, or companies that engaged in outsourcing such as taking over the world's back-office, telemarketing or customer services. Out of this original set grew the giants of today such as Infosys, Tata Consultancy Services, WIPRO, and Tech Mahindra. Once this set of entrepreneurs and their employees figured out what the rest of the world wanted, they grew in confidence and software development capabilities which led to the second generation of entrepreneurs in India. This generation designs programs and solves problems for the rest of the world. However, there is now a third generation of entrepreneurs in India that is catering not to the rest of the world but to the Indian consumer. This set of

companies is focused on e-commerce, FinTech, EdTech, and all forms of digital services, and has exploded since the pandemic, on the back of "India Stack", to which I will turn to next. Given the size of Indian consumer base, the sky appears to be the limit for this third generation, at least for the near future.

ii. Digital India: India, by most objective standards, has the world's best digital plumbing that has evolved modularly. It is designed around *Aadhaar*, the unique identity number rolled out starting in September 2010, which has now been provided to over 1.2 billion Indians with several scores of millions of authentications occurring daily. This has enabled, after early digital payment mechanisms, the setting up of a *Unified Payments Interface* (UPI), a public utility that provides a common payments and settlements platform between any two Indian entities (individuals or businesses) with unique identifiers, enabling seamless portability between their respective banking solutions at the back end. Combining this with the deep penetration of mobile technology in India has then led to the delivery of digital payments-based solutions, e-commerce, e-KYC, e-Sign'ing of documents, and the like. India's public-utility approach has differed from the mostly private but concentrated model of digitization in China and the private but heavily fragmented and seemingly inefficient model of digitization in the US.

The net result is that digital payments are rising in share at the expense of cash which since 2020 is declining in its overall share of payments for the first time in India, representing a substantial turning point for the economy. While the ill-conceived demonetization of 2016 failed to create a definitive transformation from cash to digital payments, the well-intended even if botched-rollout of Goods and Services Tax (GST) has moved even smaller businesses onto digital platforms such as GST Network and the government's eMarketplace (GeM). Post pandemic, however, the transformation has finally touched the Indian households decisively. There are now more than 200 million active users of digital payments, with Google Pay and Phone Pe making over 80% of the transactions. What is even more impressive is that India continues to push ahead along this guiding principle of viewing payments- and settlements-related services as a public good that ought to be provided publicly. "India Stack", in particular, provides a set of APIs (Application Programming Interfaces), that are standardized to ensure encrypted trustworthy pipes connecting various first-order and higher-order platforms for

customer and/or business interfaces, developed with the support of India's tech think-tank *iSPIRT* (Indian Software Product Industry Round Table). Thinkers who have made Digital India such a success deserve an Olympic gold medal, even if digitally delivered!

iii. FinTech in MSME lending: Historically, India's micro, small and medium-sized enterprises have struggled to receive formal financing, with the 2019 U K Sinha Committee Report of the RBI estimating that only 0.6 million out of 64 million receiving such credit (though as these 0.6 million MSMEs are the larger >$4 million turnover firms, they represent 15% share of the overall MSME credit). While the financial system has been creative via micro-finance to improve access to credit, the Report assessed that there remains a formal financing gap in MSME credit of over $3.5trillion. It seems that the situation is now changing on the ground.

First, from only 17% of Indian citizens having a bank account in 2008, the proportion is now over 80%. Secondly, there is now the Data Layer being added to the India Stack, and the possibility of *Account Aggregator* enables an entity to pool together a digital view (*DigiLocker*) of all its financial holdings data, based on a secure *Consent* architecture, for enabling algorithmic credit scoring. Thirdly, MSME transactions are now captured electronically on private or government e-commerce platforms, making them readily collateralizable for account receivables financing. This has helped alleviate their liquidity risks. Finally, as India Stack has created an Open Credit Enablement Network (OCEN) that provides portable pipes between banks, sharing economy platforms, and end borrowers, entry barriers are low and payment companies are springing up. The payment companies are keen to evolve into lenders by joining forces with e-platforms that are eager to provide loan assistance.

This overall formalization of the MSMEs and the financial lending technology built around India's rich and robust digital plumbing architecture. It has implied that (i) Credit access to MSMEs has substantially eased, consistent with new business and income growth in Indian districts where the adoption of cashless payments has been more intense since 2016 (Dubey and Purnanandam, 2023); (ii) FinTech lending share in credit has grown with the FinTech sector valuation over $20billion; and, (iii) Private equity and venture capital funding to this sector is over $10 billion and represents the second largest investment in the economy after the e-

commerce sector (Gupta and Shah (2021)). India's digital plumbing technology has thus raised the possibility of reaching the last mile and truly banking for the 60million+ MSMEs and a billion+ citizens over the next decade.

iv. Financial backbone of Start-up and Digital India: What attracts the private equity and venture capital, as well as angels – foreign and domestic – to invest in India's entrepreneurial economy? Besides the potential of the young digital India firms, it is the relatively vibrant easy-to-exit primary and secondary market for equities. The development and deepening of equity markets have been aided by the relatively high, even if gradually declining, household savings rate, and the financialization of savings away from real estate and gold.[4] This financialization occurred at rapid pace over the past decade through the advent of mutual fund schemes, their penetration in second- and third-tier cities of India, and to an extent by the tepid pace of rise in real estate valuation as well as by the decline in inflation relative to the prior decade.

Reflecting this, India remains a large recipient of foreign direct investment (FDI) within EM countries, next in absolute flows only to China, even though there has been some decline of late. Clearly, relaxing some more sectors for FDI is a natural way to ensure further penetration of FDI and the financing and value-add that these investors bring to the economy. Even at current levels, however, FDI has joined remittances in creating a stable inflow of foreign capital relative to the volatile foreign portfolio investment (FPI) flows. A further potential stems from the global pivot towards China+1 economy, which could bode well for FDI in manufacturing in India (Apple and Foxconn shifting a part of their manufacturing of phones to India to diversify supply chains, for instance), but as I point out in concluding remarks, it remains to be seen if this potential will be fully realized or not.

v. Health of the banking system: Finally, a range of initiatives have been undertaken by the Reserve Bank of India (RBI) since 2017 to resolve the non-performing assets (NPAs) of the Indian banking system (see Acharya, 2020, for a backdrop), capitalizing on the IBC. These have

[4] The hoarding of gold by Indian households, mostly in the form of jewelry that serves purposes of inheritance transfers and wedding gifts, dates back to ancient times. It was only entrenched by high inflation until the last decade's disinflation succeeded in inducing an aggregate switch towards financialization of savings. Nevertheless, the Indian demand for gold remains sensitive to fluctuations in inflation.

now come to fruition in that gross and net NPAs of scheduled commercial banks were down in September 2022 to 5% and 1.3% respectively, having fallen from peaks of 11.2% and 6.1% in 2018 (as per data from the RBI Financial Stability Reports). Importantly, the provision coverage ratio for Indian banks now exceeds 70% and fresh slippage ratios remain low given the deterrence effect of the IBC (see I.iv above) and the de-leveraging of most large and listed companies. It has taken more than ten years for this clean-up to materialize following the credit boom and bust of 2011-13, especially in sectors such as infrastructure, power, ports, and steel.

The good news from all this is that if private capital expenditures in India were to pick up, banks are in a position to meet the credit demand. The bad news is that this hasn't yet occurred.

III. Saddled with challenges

A key question is if India's opportunities are so vast, why isn't it yet able to register higher growth and output levels consistent with its potential and expectations, create jobs at a pace and of quality that its growing population requires, and become a greater part of the global economy? I wish to highlight several structural – industrial and macroeconomic – issues that India remains saddled with and which present daunting but surmountable challenges for future.

i. Tariffs: India is undoubtedly a contender for being the "tariff king" of the world. As per World Trade Organization (WTO) records, India's average present tariff rate of greater than 15% (18.3% in 2021) is the fourth highest behind Sudan, Egypt and Venezuela, on par with Brazil, and substantially higher than China and Mexico. While India's tariff rate has no doubt come down from being above 50% prior to 1991, it has had no substantial decline since the global financial crisis of 2007-09, and has in fact increased by about 5% since 2013. As Aiyar (2018) notes, the present Indian government that came to power in 2014 with the slogan "minimum government, maximum governance", has however reversed the liberalizing trend of its term during 1998 to 2004. It has instead adopted protectionism, for example, via its budget in February 2018 which raised import duties significantly and across board *"in order to protect uncompetitive small businesses and create jobs in labor-intensive industries."*[5] Chatterjee and

[5] Aiyar (2018) notes: "*Modi's Bharatiya Janata Party is not a conventional right-wing party. It rejects both socialism and Western capitalism and seeks a homegrown solution called Integral Humanism. It supports private enterprise but also runs India's biggest trade union and believes in a wide-ranging welfare state. It has highly protectionist*

Subramanian (2020) document the time-series and sectoral patterns of India's tariffs and argue that this has instead hurt India's exports in labor-intensive sectors such as apparel, textiles, leather and footwear, where India has ceded much ground to its neighbors. In other words, India is protectionist in precisely those sectors, viz. goods manufacturing, where the global opportunity has arisen from the Chinese slowdown and China+1 pivot of the global economy.

There are several harmful consequences.[6] First, while India has become more self-reliant on agricultural output, tariffs in this sector remain above 35%. At the same time, its efficiency remains low. For employing more than 40% of India's work force, agriculture generates less than 15% of the GDP. This prevents a market-based rotation of jobs in India from low-skilled agricultural labor to high-skilled services labor. Secondly, India exports to the rest of the world by processing and adding value to imported raw materials and goods. As a result, high tariffs – by increasing the cost of imports – have made exported goods by Indian firms costly and globally uncompetitive, lowering India's goods exports and in turn its share in global goods trade. It is hard therefore to find many products outside India that are manufactured by Indian firms. There are few, if any, global Indian brands. Thirdly, high tariffs imply that Indians pay much more on many imported items (such as iPhones) than foreign consumers do, and in many cases have to simply put up with weaker-quality higher-than-deservingly-priced domestic substitutes. In turn, price levels in the economy are kept artificially high in spite of global efficiency gains that could aid disinflation. Finally, tariffs have created protectionism in several Indian industries, disincentivizing investments in efficiency by cozy incumbents and allowing them to steadily garner market power by building up concentrated positions. There are, however, other factors besides tariffs that have contributed to this market power, for which I present next – to the best of my knowledge – a novel set of facts and analysis.

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affiliates that have always been wary of multinational corporations and international institutions. It believes in government intervention to create national champions, increase employment, and protect small businesses."

[6] The political economy of why the trend in tariffs has reversed is interesting to explore. It is consistent with the populist messaging of making India self-reliant ("*atmanirbhar*" in Hindi), while also convenient for large domestic incumbent firms who remain protected from foreign competition. It may, however, also be reflective of an inability to create adequate jobs given China's dominant role in goods exports and threat of automation. The real economic cost appears to be borne by the society at large but suffering sectors, especially their MSMEs, have been regularly offered forbearance on their bank credit, and since the costs are generalized via inflation, low presence in global trade, and a lack of investment and jobs, they are rendered difficult to pinpoint specifically to tariffs.

ii. Concentration of power in Indian industry: [7] India was effectively a closed economy until 1991 and industrial concentration was high due to state-owned monopolies. Post-1991 liberalization had a dramatic impact on concentration as industries were de-reserved for the private sector and public sector enterprises were privatized or divested. As a result, concentration, measured using the share of "Top-5" industrial groups *across* the non-financial sector by sales or assets in a given year, fell dramatically to start with (see Figure 1, left panel, for share of Top-5 by publicly listed assets, and the Appendix[8] for all results based on share by sales). Essentially, public sector firms gave up their share to private entrants.

As a result, overall concentration fell, and even though concentration within Top-5 private firms gradually rose (shown separately in Figure 1), it was low to start with. By 2010, the concentration of market power in Top-5 private firms had caught up with the overall Top-5 firms' concentration, but both fell during 2010-2015. Next, a close inspection shows that concentration started rising again from 2015 onwards, overall as well as just within the set of private Top-5 firms (see Figure 1, right panel). Put another way, private Top-5 groups evolved into the overall Top-5 across many non-financial sectors. At a disaggregated sectoral level too, the notable shift occurs around 2015-16 in several sectors, mostly traditional or capital-intensive (e.g., civil engineering; metals; non-metal minerals; chemical, petroleum and wood products; and, retail trade), but recently, also in newer sectors such as telecommunications.[9]

INSERT FIGURES 1 AND 2 HERE

A striking feature of this rise in industrial concentration by private companies is that it is in part due to the growing footprint of "Big-5" industrial conglomerates, based on the overall share of assets in non-financial sectors in 2021.[10] Data shows the following patterns. First, until 2010,

[7] Aanalysis that follows on India's industrial concentration are based on Center for Monitoring Indian Economy (CMIE)'s *Prowess Dx* database and joint work with Rahul Singh Chauhan of University of Chicago.
[8] Throughout, Appendix refers to that in the Unabridged version of this paper published online by Brookings.
[9] By way of specific examples, the share of Top-5 groups by sales in Civil Engineering and Construction rose from 31% in 2016 to 42% in 2021, in Telecommunications from 65% to over 84%, and in Retail trade sector from under 44% to over 65%. Similarly, the share of Top-5 groups by Assets rose sharply by 2021 to 68% in the Manufacturing of Basic Metals, 26% in the Manufacturing of Chemicals, 90% in the Manufacturing of Refined Petroleum and Coke, and 47% in the Manufacturing of Non-metallic Mineral Products (including cement and other building materials).
[10] The Big-5 are Reliance (Mukesh Ambani) Group, Tata Group, Aditya Birla Group, Adani Group, Bharti Telecom.

the Big-5 increased their footprint in more and more industrial sectors, broadening their reach to 40 NIC-2-digit non-financial sectors (see Figure 2, left panel). After this *breadth-first* strategy came the *depth-next* strategy. Starting in 2015, the Big-5 started acquiring larger and larger share within the sectors where they were present (see Figure 2, right panel). In particular, their share in total assets of the non-financial sectors rose from 10% in 1991 to nearly 18% in 2021, whereas the share of the next big five (Big 6-10) business groups fell from 18% in 1992 to less than 9%. In other words, Big-5 grew not just at the expense of the smallest firms, but also of the next largest firms.[11] It is possible that some of this growth in share of the Big-5 is due to their ability to acquire relatively large defaulted companies that were filed to the IBC following the Reserve Bank initiated clean-up of the banking sector in 2017-18. However, as Figure 2 (right panel) reveals, the growth in share of the Big-5 starts earlier in 2015 and not in 2018 when the first IBC cases started being resolved.

Next, this growth of Big-5 appears to be driven in part by their growing share of overall Mergers & Acquisitions (M&A) activity. Even though the aggregate number of M&A deals has dropped since 2011, the share of M&A deals by the Big-5 has doubled from under 3% in 2015 to 6% in 2021, without such an increase being seen in the next five biggest groups (Big 6-10). Arguably, this growth has also been supported by a conscious industrial policy of creating "national champions" via preferential allocation of projects and in some cases regulatory agencies turning a blind eye to predatory pricing. Equally importantly, given the high tariffs, Big-5 groups do not have to compete with international peers in many sectors where they are present and derive most of their revenues domestically.

Such growth of conglomerates raises several concerns, such as the risk of crony capitalism, i.e., political connections and inefficient project allocations, related party transactions within their byzantine corporate organization charts, over-leveraging due to an implicit too-big-to-fail perception, key-men/women (or key-family) risk in their operational efficiency, and a lack of

[11] The largest contributing sectors to Big-5 sales are Manufacturing of Metals, Manufacturing of Coke and Refined Petroleum Products, Retail Trade, and Telecommunications. *Prowess Dx* data also confirm that consistent with the rising market concentration, Big-5 are receiving a greater percentage of their sales revenue from these sectors.

creative destruction by crowding out of entrants.[12] The importance of these issues notwithstanding, I limit my attention below to how the rising market power of conglomerates affects product markups.

INSERT FIGURES 3 AND 4 HERE

Figure 3 shows that the rising market power is coincident with rising markups since 2016. Specifically, we are interested in the "markup" which answers the question: If input cost of a firm changes by 1%, how much does the product price change by? Using the replication code provided by De Loecker et al. (2020) for estimating firm-wise markups based on data from firm balance sheets, Rahul Singh Chauhan and I estimate firm-wise markups for Indian firms in the *Prowess Dx* database. Figure 3 illustrates the rise in aggregate sales-weighted and assets-weighted markups, which are barometers of market power in the non-financial industries. Markups fell gradually from early 1990's until 2013, but have been rising significantly thereafter, scaling in 2021 the high level of 1.4 in 1990's, and even when capacity utilization in the Indian industry was low during the pandemic due to collapse of aggregate demand.

While a deeper and fuller inquiry is warranted, we find that there is a potentially causal link from market power to markups. To illustrate the econometric results visually, Figure 4, left panel shows the industry-adjusted markups of Big-5 and the rest, establishing a persistent and substantial 0.1-0.3 (i.e., 10-30 percentage points) markup gap between the two groups over the past two decades. Interestingly, there is no such robust pattern in Figure 4, right panel for Top-5 firms in each industry in a given year (as explained earlier, Top-5 in a given year overlap but do not fully coincide with the aggregate Big-5). In other words, it is the Big-5 which are able to exert extraordinary pricing power and capture economic rents relative to other firms in the industry, whereas Top-5 but non-Big-5 firms in a sector are not associated with such an outcome in markups.[13] By way of a concrete example, Appendix Figure 18 shows the industry-

[12] See, e.g., the discussion in Philippon (2019), comparing and evaluating concentration trends between the US and the Europe, and highlighting that "the great reversal" in the US in industrial concentration is raising firm markups and prices. This is an under-appreciated – perhaps even easily dismissed – phenomenon by many economists.
[13] This differential pattern may be due to market power being driven by (i) the overall size of the group rather than the size of the industry-specific subsidiary, (ii) larger size leading to better access to finance, (iii) horizontally integrated position of the group in input-output matrix or supply chains, and (iii) political patronage which may give credible comfort over future market share even while not competing aggressively for current share.

adjusted markups of Big-5 and the rest for Manufacturing of Non-metallic Minerals and Basic Metals. Since 2000's, the Big-5 markup is higher than the rest for Non-metallic Minerals by 10-60 percentage points (a leading example being Cement) and for Basic Metals by 10-20 percentage points. A similar wedge is observed for Chemicals and Chemical Products.

In summary, creating national champions, which is considered by many as the industrial policy of "new India", appears to be feeding directly into keeping prices at a high level, with the possibility that it is feeding "core" inflation's persistent high level.

A natural question that arises is whether India is simply emulating the national-champion policy of countries such as Korea where large conglomerate groups (*chaebols*) such as Hyundai and Samsung have become significant international players in several sectors. There are at least two critical differences. First, these countries did not protect their conglomerates with sky-high tariffs as India does. That is, their conglomerates were competing on a much greater level-playing-field with international peers, especially in the tradeable sector, which likely explains their global competitiveness and the global brand status of several of their products. In contrast, barring the exception of tech service exports, most of the Big-5 revenues in India are domestically sourced, and barring the exception of e-commerce, without much foreign competition. Secondly, these countries undertook a series of supply-side or factor-market reforms in land, labor, power, and financial sector, among others (see, for example, Park (2022) on the East Asian model of economic development). These reforms made domestic competition vibrant. While India's financial sector has been restored to reasonable stability, critical reforms in land, labor and power are either wanting or far from maturity. At present, the rising industrial concentration in India is safeguarded from both external competition via tariffs and domestic competition via poor access to factors of production. I contend, therefore, that the rising concentration presents more of a risk or a dark side through various distortions and inefficiencies flagged above rather than an opportunity or the bright side that could lead to the creation of globally competitive international giants.

iii. Twin deficits: India's stock of foreign exchange reserves is presently over $550 billion, which is more than twice the level at the time of "taper tantrum" in 2013 and presently represents

between 8-10 months of cover relative to its imports. This has enabled the Reserve Bank to manage pretty well the exchange rate volatility in Rupee during 2022 when the Federal Reserve embarked on a tightening of its monetary policy. Nevertheless, India's twin deficit metrics remain in what might be considered a less-than-comfortable zone.

The fiscal deficit, measured appropriately as a public-sector borrowing requirement (PSBR), i.e., consolidating the center, the states, and their public sector enterprises, remains above 9% of GDP. It has remained so for past several years, and reached a peak of over 14% to GDP during 2020-21 (Chinoy and Jain, 2023). In terms of outstanding stock, sovereign debt-to-GDP increased by 20% post-2020, and is presently is close to 85%. Flow measures suggest an even greater concern as annual interest payments for the center are now over 30% of revenues and over 20% of expenditures (Mishra and Patel, 2022), while real interest rates are rising in India and the rest of the world.

This has occurred in part because the targets set for fiscal deficit by the Fiscal Responsibility and Budget Management (FRBM) Act of 2003 (reviewed by the N K Singh Committee set up in 2016) have been steadily missed under one pretext or the other. The central government has done this in part to deliver on welfare besides dealing with a weak economy, including during COVID. The state governments have contributed as well. Evaluated in a holistic sense, the states face severe hidden losses from the power sector. The latter amount to close to $40 billion p.a., or a 1.5% of GDP from just one factor (as per estimates in Anand, Sharma, and Subramanian (2022)) as power gets distributed at politically attractive prices rather than market prices, including and especially as a subsidy to agriculture. The resulting losses get perpetuated through state-government balance-sheets and/or national special purpose vehicles for the financing of the power sector (Power Finance Corporation or PFC and Rural Electrification Corporation or REC). The debts of PFC and REC are generally not consolidated federally, requiring a focus on India's PSBR rather than just on on-balance-sheet deficits. These statistics raise two significant risks.

One risk is that the fiscal dominance continues to hang like the sword of Damocles over the inflation-targeting and liquidity frameworks of the Reserve Bank, especially in politically important years. In turn, that makes inflation expectations hard to budge from post-COVID

highs. Historically, inflation has played a principal role in liquidating India's debts (Das and Ghate (2022)) but it can take several years, even a decade to do so. An equally unattractive or perhaps even worse alternative is that of financial repression, in which government-owned banks and insurance companies roll over national and sub-national debts under moral suasion or under the guise of aggressive prudential norms. This crowds out private sector growth, especially of domestically-financed bank-dependent MSME borrowers. One hopes that this will be harder to implement in a more market-dominated economy that India has now evolved into since 1990's but fiscal dominance via financial repression nevertheless remains a threat.

Second, with such high fiscal deficits, there is a risk of crowding-out of long-term public expenditures in education and health. Indian government deserves much credit for rationalizing subsidy (revenue) expenditures year after year towards public infrastructure (capital) expenditures, and delivering welfare – including basic health services – more efficiently on the back of India's digital plumbing. However, this efficiency needs to be weighed against a crowding-out of states from the tax base by the center, which has made center's welfarism drive effective but reduced states' ability to incur capital expenditures, and which some view as a potent threat to the country's cooperative federalist structure.

Now, let us turn to India's current account deficit. While sharp fall in commodity prices and a surge in tech and non-tech services exports has brought its expected value to about 2% of GDP for 2023-24, it averaged close to 3% for the period March 2021 to September 2022 (with several prints in excess of 3%). This CAD vulnerability reflects India's poor share of goods exports in spite of excellence in services exports, its consumption being lop-sided towards the urban households who consume several imported goods, and the sticky core inflation inducing greater gold imports. A corollary is that without a broad-based consumption growth, India seems unable to grow at or close to its potential level. Every time it seeks to do so, it experiences merchandise trade deficits that raise CAD, inducing exchange-rate weakness and imported inflation (especially when oil prices rise). These spillovers, in turn, necessitate that the Reserve Bank has to raise interest rates to rein in inflation, creating an unavoidable dampener on any nascent investment cycle.

iv. Persistent (core) inflation: Core inflation, i.e., headline consumer price inflation excluding food and fuel components, has been persistent in India at around 6% during 2020-22. Headline inflation has by and large hovered around the core – even gravitated towards it (Chinoy and Jain, 2023) – and steadfastly moved away from the inflation targeting mandate of 4% (+/- 2%, while paying attention to growth). Alternative definitions of "core", trimmed means and diffusion indices, all suggest broad-based inflation is underway, reflecting in part strong aggregate demand on the back of post-COVID stimulus, particularly in urban segments.

This may, however, not be the entire picture. There seems to be an urban wage spiral in the fastest growing sectors such as IT services where export demand remains high. Formally available statistics on listed company wage growth also appear in double digits, i.e., definitively in excess of the inflation rate. Concomitantly and consequently, household and business inflation expectations have risen. As some analysts have noted (Chakraborty and Baqar, 2022, for example), the rise of core inflation and its persistence, as well as the urban wage spiral, are puzzling given the increasing slack in the overall employment scenario. Effectively, India's Philipps curve seems to have moved up and/or steepened as it seeks to close the post-pandemic output gap, reflecting lack of adequate skilled labor for the formal sector that is outperforming the informal sector but which is unable to penetrate or upgrade the labor force.

Another reason why the persistence in the core inflation is rising is that consumers do not seem to be fully benefiting from input price declines, which may be due to greater pricing power in increasingly concentrated industrial organization structures. What lends some credibility to this thesis is the observation that in contrast to the rest of the world, India's core inflation is rising more in Goods, where its industrial sectors are increasingly concentrated, than in Services, though there are early signs of pricing power rising in the Services sector too.

v. Education gaps, declining female labor participation, and too few jobs: Finally, the substantial subsidization of input factors (electricity, fertilizers, water, credit, …) to the agricultural sector keeps the sector artificially large. As per data from the World Bank, while India's agricultural labor force share has shrunk from 63% in 1990 to 45% in 2020, it remains way too large in an absolute sense given that the share of agriculture in GDP during 2015-20

has been in the 16-18% range (compared to just 4% for the rest of the world). Further, the sector operates at low efficiency in that the value-add per Indian agricultural worker is only 8% on a unit investment. Overall, this has kept the distribution of workers in India low-skilled and unfavorable for it being able to grow services exports to their full potential without immediately inducing a wage spiral.

The chicken and the egg problem is hard to resolve, but labor persisting in low-skilled jobs is consistent with education gaps for the development of high-skilled labor remaining substantial. This is in spite of a steady improvement in school enrollments in India since 2006 (as per the Annual Status of Education Reports), including for the girl child. In particular, literacy levels have dropped steadily over the past decade: Reading ability is presently below the pre-2012 levels, in both government and private schools, and for both boys and girls, and, Arithmetic levels have dropped less steeply but are presently at lower levels than in 2018.

While some of the education gaps are undoubtedly due to extended school closures during the COVID lockdowns and beyond, perhaps the biggest impact of COVID years has been on India's female labor participation. As per survey data from the CMIE, it has declined from 18% in 2016 to under 11% in 2022, and somewhat unexpectedly, to under 7% in urban areas.[14] These levels represent a substantial fall from those in 2012-14 of over 25%, and hint strongly at the lack of adequate job creation in the aggregate.

Finally, while the flow of new jobs is at 800K per month as of December 2022, required jobs for the entering labor force is over 1.2million per month. Formal job creation measured using EPFO (pension fund enrolment data) also showed a decline of 15.5% in Nov-Dec 2022 in the 18-25 age group of typically new subscribers. Consistently, the survey statistics of the CMIE show that unemployment rate has risen from 3.37% in Jul 2017 to 6.9% in Jan 2021 (it being greater than 20% for graduates and post-graduates) to 7.5% in Mar 2023. Overall, labor participation rate has also declined from 49% in Jul 16 to 41% in Jan 2021. This scarcity of jobs, in the patriarchal

[14] Even data from the Periodic Labor Force Survey (PLFS) show that female labor force participation was at 27% in 2021-22, which is low in an absolute sense as well as relative to most peer countries.

Indian society, has left women effectively out of labor force. Unsurprisingly, there has also been a substantial reduction in salaries of women who are in the labor force and employed.

Overall, India seems to be creating too few jobs relative to its labor force needs, there are too many low-skilled laborers especially in agriculture, primary education gaps are mounting, and female labor force is bearing the brunt of many of these developments.

IV. Proposals

The challenges India is presently saddled with provide a natural blueprint for what are some structural reforms that can be initiated immediately but delivered over the next decade.

i. De-tariff: India's tariffs are way too high and protectionist in favor of its incumbents. India needs to bring tariffs in line at least with those of China, and perhaps to have an advantage over its key competitors, make them even lower. If one-time sharp drop in high tariff rates is difficult, e.g., to manage the reskilling of displaced labor, then policy can announce a calibrated reduction plan over (say) a three-year period. Such clarity of purpose and "forward guidance" would in itself facilitate expansion of goods trade, induce a much-needed global competitiveness in its firms, and likely also encourage a pickup in investment.

I stress here that tariffs in agriculture need to be reduced too, given their much higher levels than in other sectors. The reductions will have to be sharper to start with but persisted with, in order to enable this sector to downsize in its labor share and upgrade in its efficiency. Further, India being more in line with international tariff rates might facilitate its greater participation in trade agreements, serving in turn as a pre-commitment not to raise tariffs again.[15]

ii. Dismantle or reduce the market power of Indian conglomerates: How should India move away from the rising industrial concentration? Given that several risks have materialized in a rather short period of time in case of one of the largest conglomerates, and over medium term, its deleveraging may slow down investments by this conglomerate, it is worth preparing for not having to deal with more of these, besides reducing their market power in product prices.

[15] India's public food stockpiling program, e.g., is intended as a food-price security system, acts to support agricultural income in normal times but depresses it when prices rise, leads to routine restrictions on imports and exports of specific agri items, and causes India to disrupt WTO negotiations even in ostensibly unrelated areas.

As seen in Figure 2, left panel, Big-5 conglomerates are in over 40 NIC 2-digit sectors. Hence, one way out of their breadth of presence is the good old Theodore-Roosevelt or William-Howard-Taft style "trust buster" strategy of simply breaking up large industrial firms and their monopolies or oligopolies by regulatory fiat or via competition commission diktat. This has been done repeatedly in the United States when concentration of corporate power has risen nationally in a sector or across different product lines. One advantage of this approach is that it would require various resulting sub-groups to have separate – and likely more transparent – balance sheets as well as ownership, management and governance structures. Such "trust busting" may, however, be awkward for the current government given it has – by revealed preference – adopted an industrial policy favoring "national champions".

An alternative route would be to throw sand in the wheels by making it economically unattractive to remain a large conglomerate unless productivity gains are truly large. As discussed earlier, Big-5 have grown their market share over the past decade via increasing their footprint in M&As. It could be required that they own more equity of the companies they acquire, e.g., 80% or higher as in the United States (see Morck, 2005, and Kandel et al., 2019), in order to get benefits that group companies enjoy. These benefits typically include (i) tax-exemption on dividends from subsidiaries to parents; (ii) consolidation of income between subsidiaries and parents for tax purposes (generally beneficial due to offsetting of losses against profits); and, (iii) tax-exemption on spinoff of subsidiary shares to parent shareholders. In essence, by increasing the extent of subsidiary ownership required for earning the benefits of being a conglomerate, some of the conglomerates may spin off existing subsidiaries where gains do not justify such an increase.

Whether done by brute force as a competition commission diktat or gracefully, it would be better to make India more competition-friendly and less incumbent-, especially less conglomerate-, friendly. A significant benefit would be that even if the sub-groups remain among the largest companies (Top-5) in their respective sectors, they may lack the pricing power commanded by Big-5 (an important difference illustrated in Figure 4).

iii. Get Insolvency and Bankruptcy Code (IBC) back on track: While the deterrence effect of IBC is well at work, the progress of the cases through bankruptcy is slow which adds to substantial erosion of asset and franchise values of defaulted companies. The legal benches handling the cases and the intermediate steps leading to the eventual reorganization, sale or liquidation of the defaulted companies could be subject to a tighter, closer to the originally envisaged, timeline. The present average of resolution times which is close to 18-24 months seems appropriate only for the largest of the cases and in difficult economic times. Most other cases should resolve much faster. One possibility is that many small and frivolous bankruptcies can be resolved privately outside of the IBC to prevent choking of the pipeline of cases. Indian Bankers' Association (IBA) could consider templates for bank loan trip-wire covenants that can trigger such early resolution via pre-packaged bankruptcies.

Separately, a true stress test for the IBC would be whether it can handle well a large conglomerate's default, either at the group level or at one or more of its subsidiaries. Going by the market credit spreads on internationally issued bonds of some of these conglomerates, this is not at all outside the realm of reasonable probability. Resolution of such entities is not entirely unlike resolving a large, complex financial institution or a systemically important one (SIFI). Should India's large conglomerates be subject to a "living will" or "resolution planning" requirement, as required of the SIFIs in many parts of the world? Design of such living wills may also lay bare their complex web of related party transactions and create an indirect tax on being large for rent-seeking rather than productivity gains.

iv. Deliver on the FRBM (fiscal deficit) targets: The fiscal deficit targets were first missed slowly and then simply kept in abeyance. A credible glidepath needs to be provided to bring realized deficits in line with these targets. Clearly, higher growth from rationalization of revenue (subsidy) expenditures towards capital expenditures is one way to achieve this, but as it is slow, will it be sufficient? The central government can use the presently buoyant tax-collection phase to glide faster to targets. What matters in the end though is the overall public sector borrowing requirement. On this front, power sector and distribution companies' woes seem important to address. As mentioned earlier, their losses seem to be on the order of 1.5% of GDP on an annual basis. A first step would be to create a national grid for the power market to allow

efficient use of capacity and market pricing based on that. A second step could be to create a time-bound transition to rationalizing the highest of the subsidies and leakages (such as for rural electrification and in agriculture) that result in substantive losses. Finally, some states will gain and others lose in the process, and the central government could create a burden-sharing mechanism to redistribute gains and losses across states. Implementing such a step successfully requires visionary leadership and can help restore confidence in India's cooperative federalism compact between center and states.

v. Deliver on the MPC (inflation) mandate: The Reserve Bank – even if reluctantly, and in all likelihood, induced by the Fed's tightening actions – has shown commitment since May 2022 to bringing headline inflation in line with the mandated target of 4%. However, its task has been rendered difficult by the persistence of elevated core inflation which is hovering around 6%. It is a reasonable assumption that headline will eventually veer towards the core, and surprises on food from uncertain monsoons (e.g., the risk from El Niño seems high for Summer 2023) and on oil from an unresolved Russian invasion of Ukraine are likely to spring more to the upside. Hence, in my view, the best the Reserve Bank can do is to invest extra in inflation-targeting credibility by raising real rates further and sacrificing some growth in the short term (I stress *only* in the short term). Such sacrifice seems crucial to bring investor and business inflation expectations down and arrest the upward wage spiral in the formal sector. Gains from inflation-targeting in terms of lowering inflation expectations durably might never get fully realized if the central bank is seen routinely as sacrificing its inflation target for supporting growth, as was necessary at the time of COVID, but is not seen as determined in the other direction.

vi. Address skilling and education gaps: There are three critical steps I suggest India undertake.

First, the share of low-earning agricultural labor needs to reduce over time and be transformed into better-skilled higher-earning manufacturing and services labor. While that requires creating more jobs in these latter sectors, it also requires a willingness on part of young labor to leave the agricultural sector. One way is to (i) raise the sector's presently subsidized costs of inputs to market levels over a period of time, (ii) allow foreign entry into the sector and lift its productivity by lowering tariffs, and (iii) have a plan to retrain a part of the labor – effectively

lower entry rate into the sector by training the youth – for vocational skills in manufacturing and services. This could be taken on as a flagship project by the ministry dedicated to skills development in partnership with private firms.

Secondly, the huge primary education gaps created in children's learning all over India during the pandemic need to be addressed in a decisive manner. While there are many initiatives that could do the needful, one option is to deliver a grade-by-grade national curriculum for a 30-day remedial summer program and another enriched 30-day start-of-the-year boot camp for reinforcement. Municipal schools can be required to adopt the programs mandatorily. Private schools may join voluntarily if the curriculum is attractive. ASER-style surveys could be conducted at pre-summer, end-of-summer, and exit-of-boot-camp stages to assess success, identify where gaps remain, and next steps planned accordingly for further remedial action.

Related to general education provision, it has always struck me why India does not have "charter" or "magnet" public schools providing the highest-quality Science, Technology, Engineering and Mathematics (STEM) education at middle-school and high-school levels. Such schools could be set up in each state, with screening based on entrance tests, in order to create an aspirational learning path among most of India's less privileged children who go to average- or below-average quality municipal schools. Essentially, this is a model of IIT's but for primary and secondary education. Long-term payoffs would be substantial. Experience of New York and Massachusetts in the US offers a possible role model for execution (Angrist et al., 2013).

Finally, it is important to make it easier for women to join the labor force, especially in urban areas where the fall in their participation rate has been the highest. Given that companies are required to contribute a minimum of 2% of their net profits over the previous three years for Corporate Social Responsibility, the following could be made qualifying for such expense: (i) supporting entities – not-for-profit or otherwise – that support education of the girl child and the skilling of young female population, including the company's own initiatives; (ii) substitutable leaves for maternity and for primary caregiver relief for spouses so as to increase the flexibility women have in resuming work earlier; and, (iii) setting up of quality childcare facilities in company premises or neighborhoods to reduce the domestic burdens of working

women. Similar schemes can be worked out for rural areas with partner organizations and with some public, multi-lateral or large-NGO financial support.[16]

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[16] This may also support attitudinal shifts away from India's patriarchal past that are crucial to ensure trade liberalization promotes gender equality rather than hurting it as was the case with 1991 reforms (Gupta, 2021).

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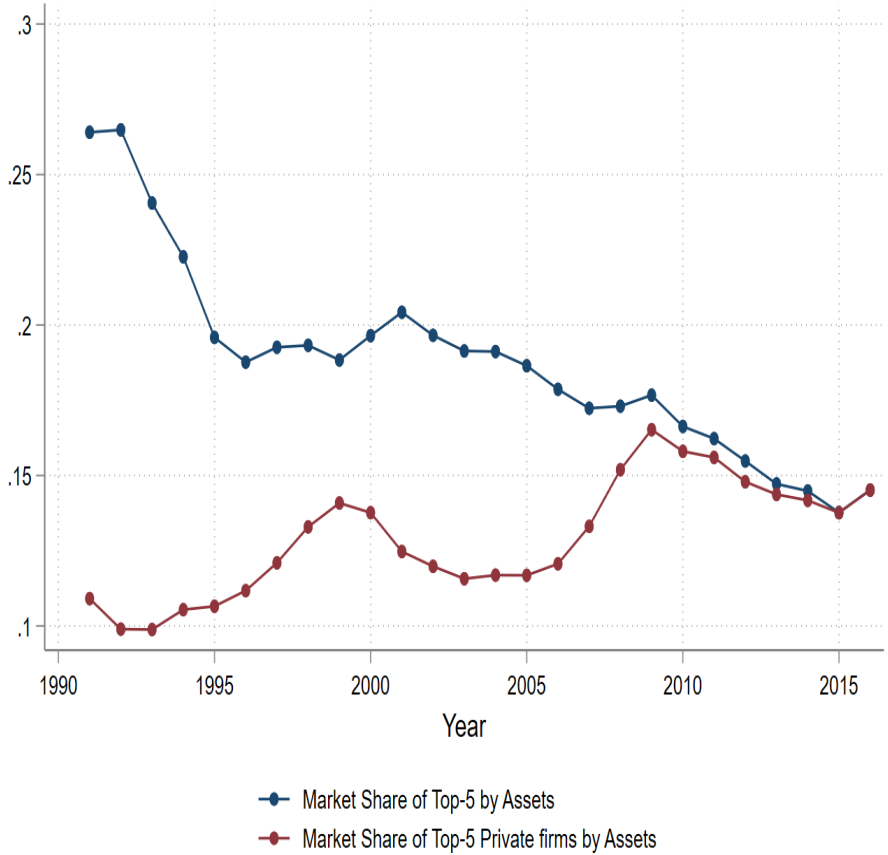
Figure 1: Falling Concentration since 1991, but recent rise (Assets)



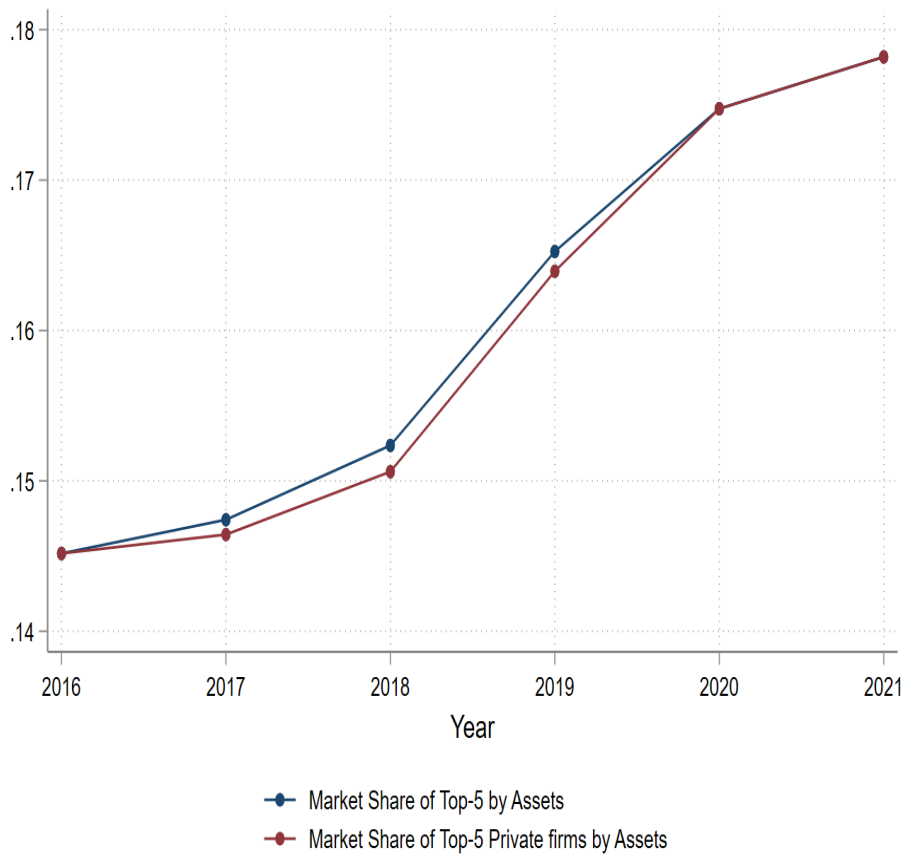
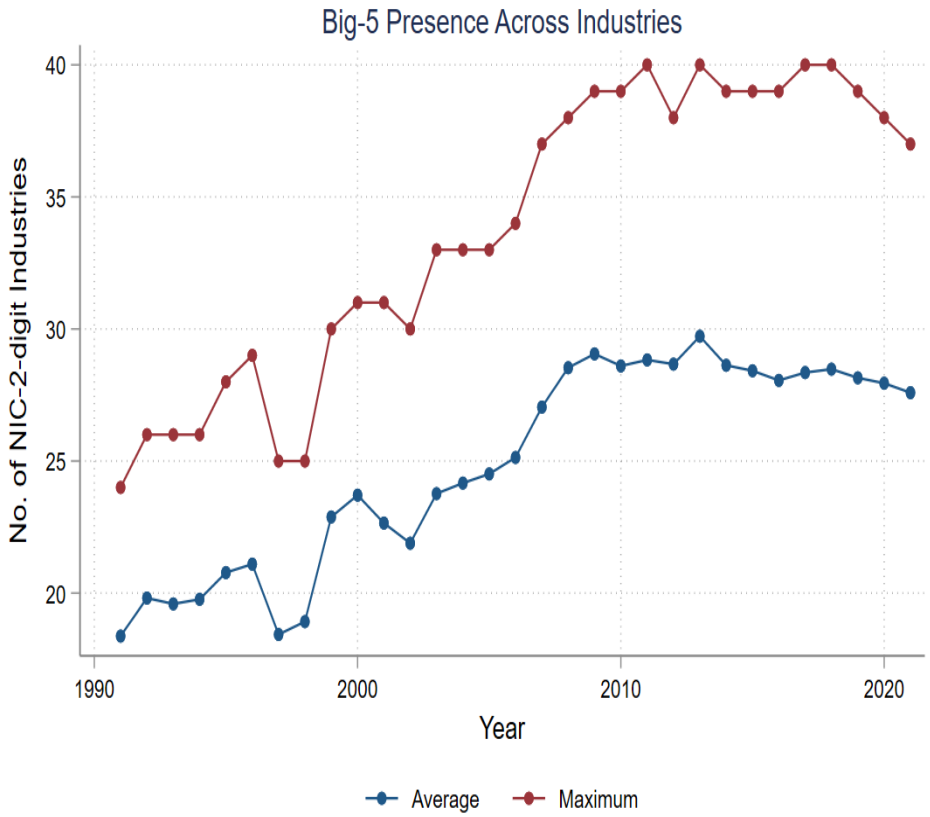


Figure 2:

Group-wise presence of Big-5 across Industries



Share of the Big-5 is rising (by Assets)

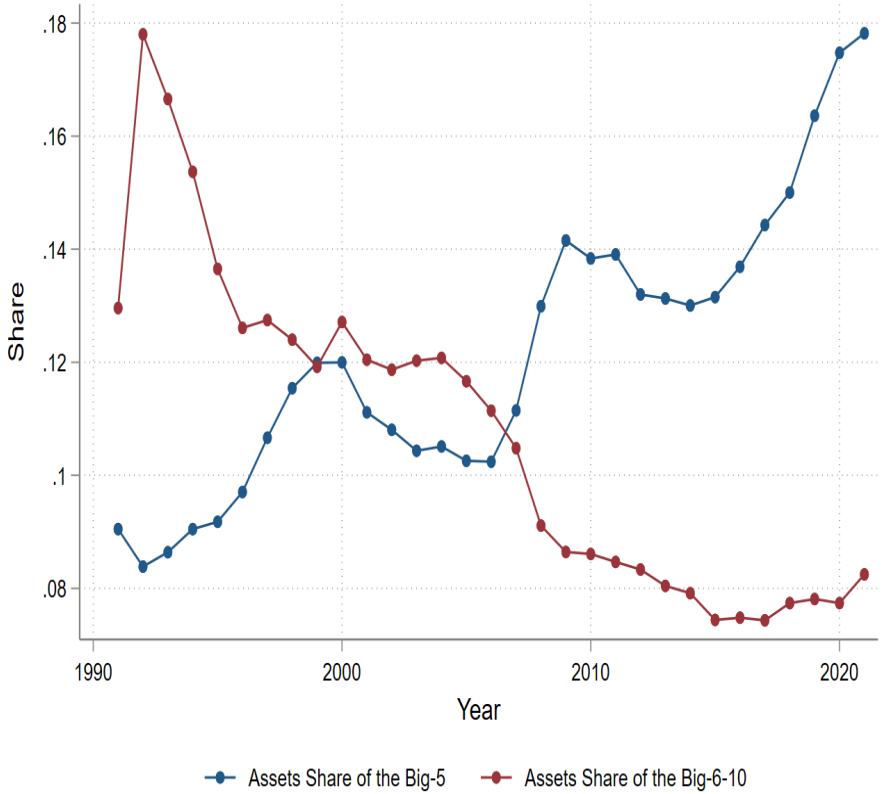


Figure 3: Reversal seen in Markups

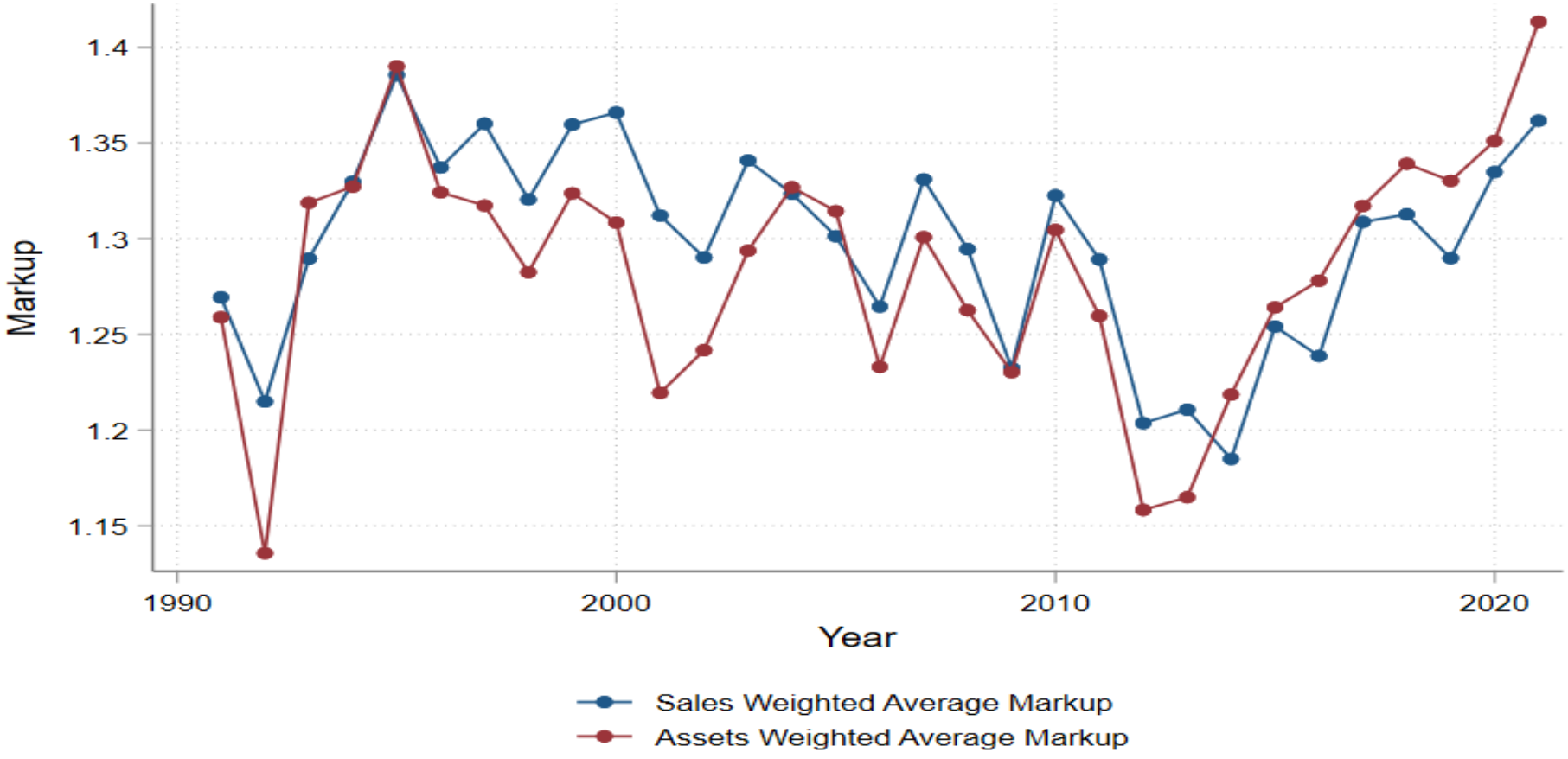
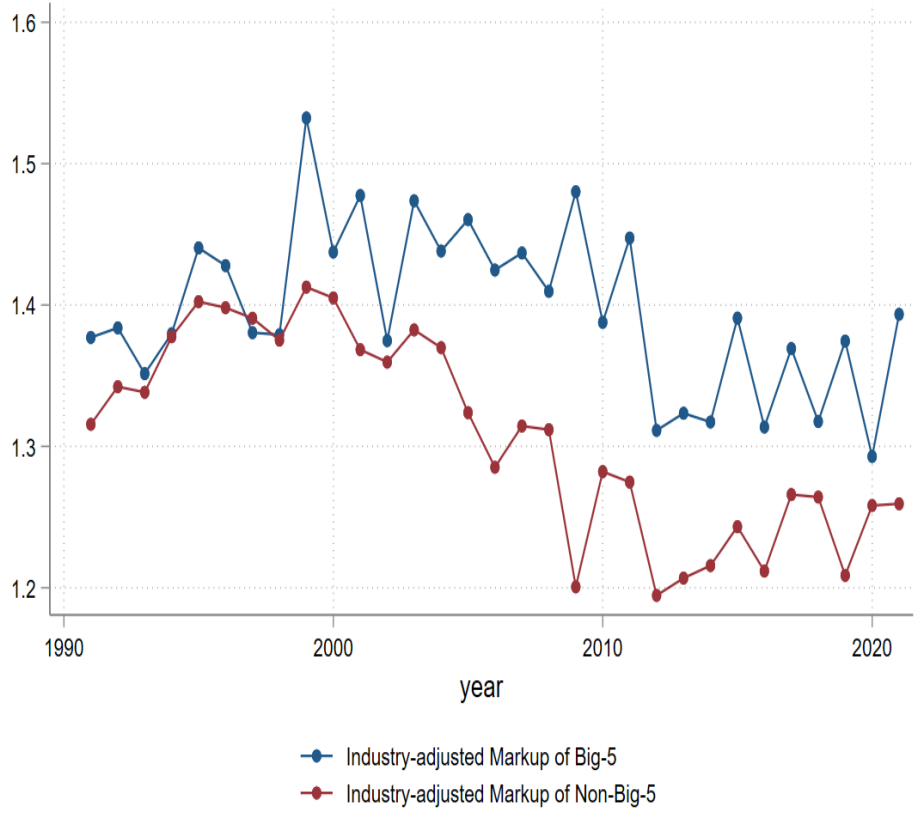


Figure 4:

Diversion in Industry-adjusted Markups of Big-5 vs. Rest



Diversion in (adjusted) Markups of Top-5 vs. Rest