The Evolving Landscape of Corporate Financing in India: A Study of the Impact of COVID-19 on Firm Funding Strategies

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Abstract

This study looks at how Indian businesses modified their financing plans during the COVID-19 epidemic, particularly emphasizing how the pandemic affected decisions about capital raising. Firm financing, which is necessary to maintain operations and expansion, usually consists of internal, hybrid, debt, equity, and other financing techniques. Although pre-pandemic problems like the Twin Balance Sheet (TBS) crisis, which was marked by significant non-performing assets (NPAs), caused some credit needs to shift toward bond markets and non-banking financial corporations (NBFCs), India's banking industry has historically been the country's leading source of credit. Financial stresses were made worse by COVID-19 in several sectors, with companies seeing drops in EBITDA, difficulties with liquidity, and a general increase in traditional lenders' risk aversion. With a focus on the NSE Listed companies we found the composition of the average debt and equity shift in the years To focus on how the change occurs, Post covid there were high investments and focus on trends such as increased consumer credit "consumerization," the growth of alternative investment funds (AIFs) in lower-rated credit, and a higher reliance on bonds by high-rated companies—despite being more regulated and relying on bank partnerships, NBFCs and FinTechs gained popularity.

Introduction

What Is Firm Financing?

Firm financing is a critical aspect of corporate finance, encompassing various methods through which businesses secure funds to support operations, expand, and invest in growth opportunities. Understanding the types of financing available is essential for firms to optimize their capital structure and manage financial risk effectively.

Types of Firm Financing

1. Equity Financing

Equity financing involves raising capital through the sale of shares in the company. This method allows firms to obtain funds without incurring debt. Key characteristics include:

- Ownership Dilution: When a company issues new shares, existing shareholders may experience a dilution of their ownership percentage.
- Types of Equity:
    - Common Stock: Represents ownership in a company and comes with voting rights.
    - Preferred Stock: Provides dividends before common stockholders and has a higher claim on assets during liquidation.
- Equity financing is often pursued through initial public offerings (IPOs), where companies sell shares to the public for the first time, or through private placements with institutional investors.

2. Debt Financing

Debt financing involves borrowing funds that must be repaid over time, typically with interest. This method can take various forms:

- Loans: Firms can secure loans from banks or financial institutions, which may be secured (backed by collateral) or unsecured.
- Bonds: Companies can issue bonds to raise capital from investors, promising to pay back the principal along with interest at specified intervals.
- Lines of Credit: A flexible borrowing option that allows firms to draw funds up to a certain limit as needed.

Debt financing is advantageous because it does not dilute ownership; however, it increases financial risk due to mandatory repayment obligations.

3. Hybrid Financing

Hybrid financing combines elements of both equity and debt. One common form is convertible debt, which allows bondholders to convert their bonds into a predetermined number of shares at specific times. This option offers investors potential upside if the company's stock performs well while offering firms lower initial costs compared to straight equity financing.

4. Alternative Financing

In recent years, alternative financing options have gained popularity, especially among startups and small businesses:

- Venture Capital: Investment from venture capitalists who provide funding in exchange for equity stakes in high-growth potential companies.
- Angel Investors: Wealthy individuals who provide capital for startups typically in exchange for convertible debt or ownership equity.
- Crowdfunding: Platforms that allow firms to raise small amounts of money from many people via the Internet.

These methods often come with less stringent requirements than traditional bank loans but may involve giving up more control over the business.

5. Internal Financing

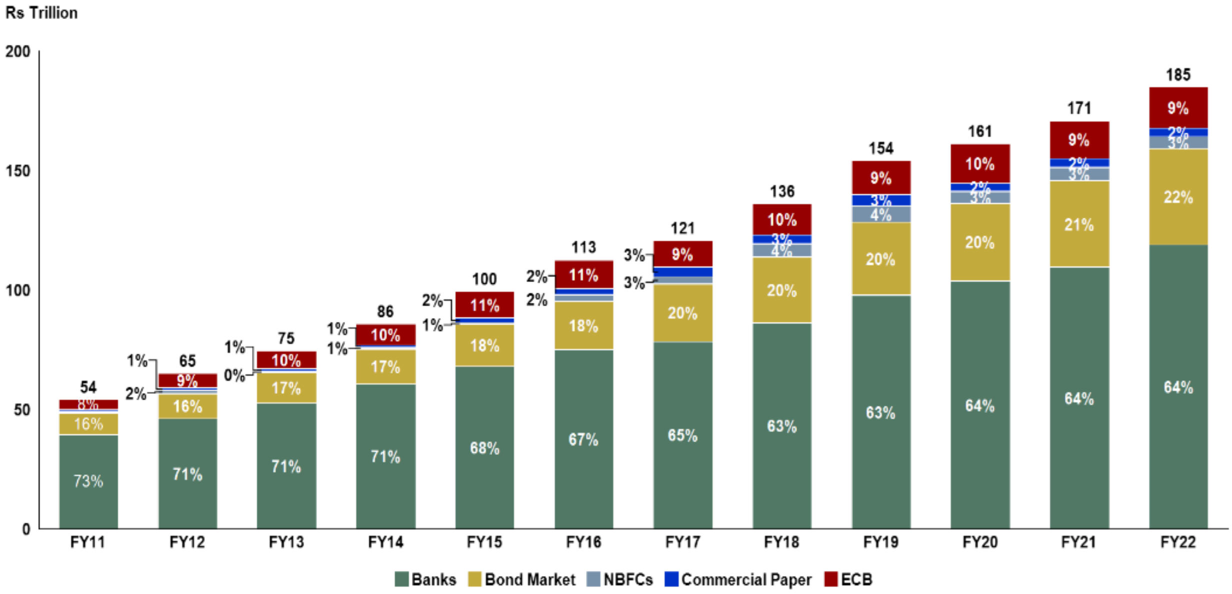
Firms can also finance operations through retained earnings—profits reinvested into the business rather than distributed as dividends. This method does not incur debt or dilute ownership but may limit available cash for other investments or expenses.

Firm Financing before COVID-19

Historically, the banking system has been the primary formal provider of commercial (that is, non-government) credit. For several years, the Indian banking sector was impaired by a non-performing assets (NPA) crisis. One of the outcomes of this crisis was that, by 2019, total bank credit was growing at 6%, the lowest growth rate in nearly six decades.

Figure 1 depicts the evolution of the shares of various credit sources over the period from FY2011 to FY2022. Focusing only on the pre-pandemic period, the most noteworthy trend from this figure is that the share of the banking sector as a source of credit declined from 73% in 2011 to 64% in 2020, while the share of the bond market went up from 16% to 20% during the same time. The shares of non-banking financial companies (NBFCs) also inched up.

Figure 1. Shares of various credit sources in total credit, 2011-2022



Source: Authors' computations using data from RBI, SEBI, and CRISIL.

In terms of growth rates, Table 1 shows that over the period between 2011 and 2020, credit from the bond market outpaced that from banks with a compound annual growth rate (CAGR) of 15.5% as against 11.3% for bank credit. A remarkable development was that net credit from NBFCs grew at a staggering rate of 25.5%.

Table 1. CAGR of commercial credit in India, 2011-2020

Source	2011-2020	2011-2015	2015-2020
Bonds	15.5%	18.4%	13.2%
Banks	11.3%	14.6%	8.8%
NBFCs	25.5%	5.0%	44.8%
CPs	17.6%	24.7%	12.3%
ECB	15.6%	25.9%	7.9%
Total	12.9%	16.4%	10.1%

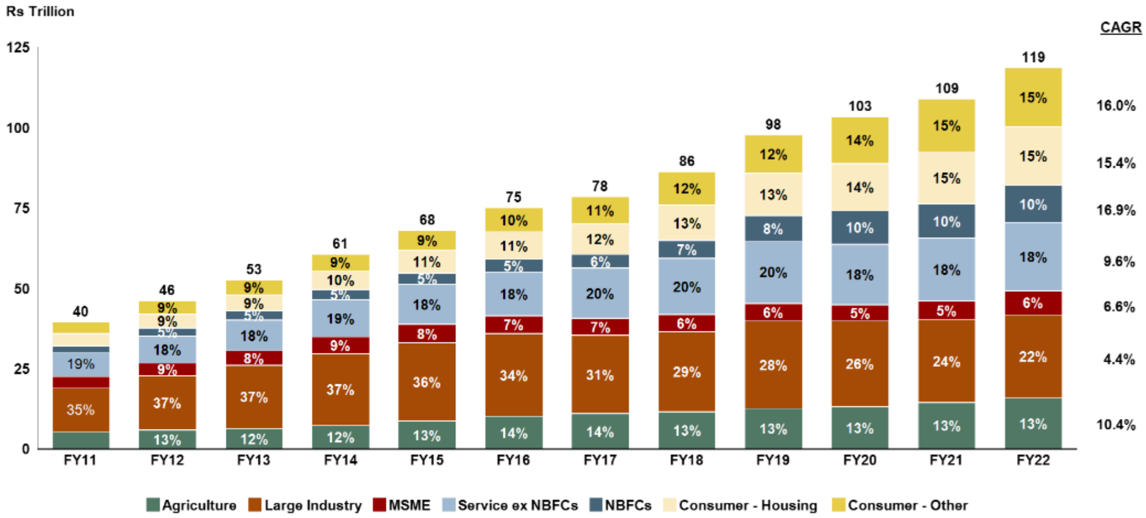
Source: Authors' computations using data from RBI, SEBI, and CRISIL.

Note: CPs are commercial papers, and ECB denotes external commercial borrowing by firms.

We see that barring NBFCs, there was a sharp decline in growth in the second half of the decade across all other sources of credit. Overall credit growth declined from 16.4% to 10.1%. The only source of credit that experienced a sharp increase in growth rate was the NBFCs, whose credit growth went up from 5% to close to 45%. In contrast, bank credit growth declined from 14.6% to 8.8%.

Despite the decline in the growth rate as well as their share in the credit market, banks still account for nearly two-thirds of total outstanding credit. Within the banking sector, the market shares of public sector banks (PSBs) declined from 77% in 2011 to 60% in 2020, and nearly this entire lost share went to the private banks, whose share went up from 19% to 35%.

Figure 2. Breakup of bank credit by borrower, 2011-2022



Another noteworthy trend in the pre-pandemic period was a significant 'consumerization' of bank credit. Figure 2 shows that in 2011, the share of industry (large firms and MSMEs) in total bank credit was 44% and it declined to 31% by 2020. On the other hand, the share of consumer credit went up from 19% to 30%. About half of this was unsecured or quasi-secured (secured against weak collateral) consumer credit.

This shows us that consumer credit started to increase only in 2011, but we will also notice how the post-pandemic played a role in this particular case.

The decline in bank credit growth, as well as the fall in the share of industry in total bank credit in the pre-pandemic period, were outcomes of the Twin Balance Sheet (TBS) crisis which manifested in the form of burgeoning NPAs on bank balance sheets, combined with over-leveraged and financially stressed firms in the private corporate sector. The TBS crisis peaked in 2018 when gross NPAs reached almost 12% of total loans. The series of steps taken by the RBI and the government to address the crisis arguably resulted in heightened risk aversion in the banking sector.

Twin Balance Sheet Crisis:-

The twin balance sheet problem refers to the deteriorating balance sheets of corporates and banks at the same time. The issue occurs when poor corporations' balance sheets force them to default on their loans, resulting in high non-performing assets (NPAs) for banks. In India, the NPAs of banks had reached an alarming level around 2018. Prime Minister Narendra Modi had blamed the crisis on the previous UPA government, saying that the huge NPAs were a result of Congress' 'phone-a-loan scam' where loans were handed out to certain businesspersons based on calls from people close to the ruling government. Several high-profile defaulters like Nirav Modi, Vijay Mallya, and Mehul Choksi had grabbed headlines during this period.

With the banking sector struggling, the bond market emerged as an alternative, especially for the top-rated firms. This trend is reflected in the numbers shown in Figure 1 and Table 1. The NBFCs also stepped in – their rise was further aided by the emergence of mutual funds as important players in the financial landscape, yet another notable development during this period.

In 2018, the financial system faced another blow when a large NBFC, the IL&FS (Infrastructure Leasing & Financial Services) defaulted on its debts. This sent shockwaves through the banking system as well as the debt markets – the two biggest funding sources for the NBFC sector. This was followed by other relatively low-impact shocks due to problems in NBFCs such as DHFL (Dewan Housing and Finance Limited) and Indiabulls Housing Finance, as well as in Yes Bank.

Simultaneously, while the NPAs in the banking sector skyrocketed during the period from 2015 to 2020, the private corporate sector whose financial stress had caused the NPAs to begin with began deleveraging. The leverage of large non-financial firms (measured as the ratio of debt to equity) declined sharply in this period.

The result of heightened risk aversion in the banking system, deleveraging by the non-financial firms, and a series of financial shocks in 2018 and 2019, was that by the time the pandemic hit India, bank credit growth was at an all-time low, the share of retail bank credit had gone up dramatically, and there was a general worsening of risk appetite in the bond markets.

Impact of COVID-19 on Firms

Based on quarterly results published by companies in India and globally, on average, there is a decline of approximately 20% in EBITDA during the quarter ended 31 March 2020 in comparison to the quarter ended 31 December 2019. Net worth movement might not accurately reflect the impact due to various other movements in equity such as capital infusion and restructuring.

S. No.	Sector	Indian Companies			
		No. of Companies	% change for EBITDA (March 2020 vs Dec 2019)	No. of Companies	% change for Net Worth (March 2020 vs Sept 2019
1	AM&M	31	-4.49%	28	8.25%
2	Automotive	9	-10.88%	9	2.52%
3	Aviation	1	-90.14%	1	-5.70%
4	CPR	27	-9.74%	23	9.89%
5	LS	22	31.21%	21	3.34%
6	Metal & Mining	4	-3.82%	4	3.22%
7	Oil & Gas	2	-73.23%	2	1.05%
8	Power	5	-36.84%	5	-3.78%
9	RE & Infra	9	1.58%	7	7.48%
10	Services	5	8.88%	4	-0.78%
11	Technology	12	0.95%	11	7.36%
12	Telecom	1	-52.13%	1	10.23%
	Total	**128**		**116****	

Movement in value of current investments

The changes in value represent the aggregate impact of changes in the fair value of investments as on the reporting date of respective quarters as well as movement in the portfolio due to addition, sale, and change in classification of these investments.

S. No.	Sector	Indian companies*		
		Investment (March 2020)	Investment (September 2019)	% Change
1	BFSI	2,851,485	2,673,308	6.67%
2	AM&M	4,442	4,003	10.97%
3	Automotive	5,631	5,709	-1.36%
4	Aviation	9,499	9,025	5.26%
5	CPR	10,923	13,687	-20.19%
6	LS	15,697	15,633	0.41%
7	Metal & mining	20,782	19,118	8.71%
8	Oil & gas	78,123	74,630	4.68%
9	Power	1,819	2,121	-14.22%
10	RE & infra	26,278	18,457	42.36%
11	Services	312	350	-10.90%
12	Technology	66,264	60,907	8.80%
13	Telecom	13,768	6,038	128.01%

Post Pandemic

The evolution of the credit landscape in India over the last decade or so brings to the fore several opportunities and challenges. How these will play out will help determine the contours of this landscape over the next decade:

i) Low credit growth: Historically, credit has grown faster than GDP in the Indian economy. The ratio of nominal credit growth to nominal GDP growth for the 60 years from 1950 to 2020 was about 1.4. However, total commercial credit in India in the decade from 2012 to 2022 grew at a CAGR of 11% - only slightly higher than the nominal GDP CAGR of 10.4%. This implies that the growth of credit in the last decade has been significantly lower than the long-term rate. For India's GDP to regain a path of high and sustainable growth, it will need a strong revival of private capital investment, for which credit growth will have to be stronger than it has been in the last decade.

To achieve this, some of the current impediments to credit supply will have to be removed, including resolving the problem of risk aversion in the banking sector, developing a deeper and more liquid corporate bond market, and encouraging a larger share of foreign debt capital infusion. Each of these areas will require specific policy initiatives.

ii) Rise of the bond market: The last decade saw the share of bonds in overall credit going up from 14% to 22%. The growth rate of credit through bonds also outpaced credit from banks. Slowly and steadily the bond market is becoming an important contributor to the supply of credit in India, especially for the larger, highly-rated firms, which is a welcome trend. A less bank-centric financial system would result in better distribution of credit risk in the economy instead of the risk being concentrated in the banking system. The bond market is under the oversight of the Securities and Exchange Board of India (SEBI), implying that with a growing share of the bond market, there will need to be better harmonization of the regulatory approaches of SEBI and RBI (the banking regulator).

iii) Rise of the credit AIFs: An interesting trend visible in recent years has been the rise in the bond market investment by credit alternative investment funds (AIFs). This signals the emergence of a private credit market in India. The assets under management of credit AIFs are estimated to be between Rs. 1 and 1.5 trillion. Though they make up only a small percentage of total credit, AIFs are performing an important role because they seek higher returns and hence higher risk, and therefore the majority of them invest in bonds that are right above or below the investment grade (that is, bonds ranging from A to B credit rating1). As a result, they are facilitating the development of the lower-rated bond market which was non-existent in India until now. High net-worth individuals, family offices, corporate treasuries, as well as foreign portfolio investors, are the most common investors in AIFs. Going forward, regulators must encourage the development of these funds to deepen the bond market. At the same time, risks arising from this market will need to be better understood, monitored, and managed through norms on governance, reporting, and disclosures.

iv) NBFCs and FinTechs: The last decade witnessed a dramatic rise in the role of NBFCs as providers of institutional credit in India. In 2022 the RBI, which also regulates NBFCs, changed its regulatory approach – it now has a size-based tiered classification of NBFCs. The largest NBFCs are called the top layer and have far more stringent regulatory oversight compared to the relatively smaller ones. Regulations for the top-layer NBFCs are now similar to those for commercial banks. This might diminish some of the intrinsic benefits that the NBFCs introduced to the Indian credit landscape.

In the last few years, technology-led financial firms (or FinTechs) have also seen phenomenal growth in India. While they have made the greatest impact in the payments space, increasingly FinTechs are entering lending businesses too. It is unclear how these developments will impact the credit landscape in the long run, but in the medium term, we may see NBFC credit growth slowing down. We may also see a large number of partnerships emerging between NBFCs/FinTechs and commercial banks.

v) Consumerization of credit: As noted earlier, a noteworthy trend in the Indian credit landscape over the last decade was the consistent rise of consumer credit. Of the total consumer credit of about Rs. 60 trillion, about 50% is for housing (secured), and the other half is ‘other’ consumer credit which includes vehicle loans, personal loans, and credit card receivables (quasi-secured or unsecured). The growth of unsecured consumer credit at 20% or more for the last few years increases the likelihood of these borrowers getting into trouble. It is important to note that India does not have a well-defined and modern legal framework to deal with the bankruptcy of individuals. This is a segment that the banking regulator will need to monitor with great care.

Literature Review

Alsamhi, M. H., Al-Ofairi, F. A., Farhan, N. H. S., Al-ahdal, W. M., & Siddiqui, A. (2023). Impact of COVID-19 on firms’ performance: Empirical evidence from India. The Journal of Economic Studies, 50(2), 289-310.

Alsamhi et al. (2023) empirically analyze the COVID-19 pandemic's impact on various Indian sectors, including tourism, hospitality, construction, food, and consumer goods. Their findings highlight that tourism and hospitality were significantly affected, with revenue plunging from ₹659.21 million pre-pandemic to ₹139.99 million post-pandemic—a drop of approximately 78%. Net profit and earnings per share (EPS) in these sectors also fell markedly, reflecting the profound demand shocks caused by lockdowns and travel restrictions. Similarly, the construction sector faced income and sales declines, yet controlled expenses mitigated the impact on EPS and diluted EPS.
Interestingly, the food sector displayed resilience, as its products were deemed essential. Although net sales and profits decreased, EPS and diluted EPS remained stable, due to partial lockdown exemptions. These findings underline the need for adaptive policies in India’s financial sector, especially as credit channels diversify beyond traditional bank lending to corporate bonds, commercial papers, and Alternative Investment Funds (AIFs). This trend could enhance risk distribution across economic segments, but it also presents regulatory challenges in balancing equitable credit access while containing systemic risk.

The study’s insights are critical for policymakers addressing sectoral recovery and resilience. The authors argue that a more adaptive financial framework is essential for navigating future disruptions and maintaining stability across Indian industries.

Das, S., & Shekar, M. (2023). Analyzing the health of the corporate sector before and after the COVID pandemic. The Journal of Business and Finance, 45(3), 189-202.

In their study, Das and Shekar (2023) investigate the health of the Indian corporate sector before and after the COVID-19 pandemic, highlighting factors that have mitigated financial stress and reduced insolvency risks among corporates. They note that Indian firms have increasingly relied on equity financing, including retained earnings and new equity issues, rather than debt, resulting in a comparatively low level of corporate debt. This trend has contributed to a relatively swift recovery in the corporate sector, especially when contrasted with global standards.

The authors also address the demand side of credit, pointing out that the growth of non-food credit from Scheduled Commercial Banks (SCBs) fell significantly in 2019-20, with a further decline to 4.9% in 2020-21, indicating weak demand and banks' risk aversion. They attribute this decline to a combination of persistent economic weakening, corporate deleveraging, and concerns over asset quality. The credit-to-GDP gap widened during this period, reflecting slack in credit demand and underscoring the challenges faced by the corporate sector.

Sectoral analysis reveals that credit growth to industry experienced a steep decline, plummeting from 6.9% in 2018-19 to a mere 0.4% in 2020-21. Despite these challenges, Das and Shekar argue that relative to advanced economies, corporate-level stress in India is expected to remain manageable. However, the potential for corporate stress to evolve into insolvencies is a genuine concern, particularly in sectors severely impacted by the pandemic. Their emphasis on the need for early interventions and resource allocation aligns with our assertion that targeted support is essential to navigate the lingering challenges posed by the pandemic and ensure a stable recovery for the corporate sector.

Suman, S., Jaiswal, V., & Veeraraghavan, R. (2023). An analysis of the financial performance of select Indian industry sectors before and after COVID-19. Journal of Economic Studies, 50(2), 123-145.

The analysis by Suman, Jaiswal, and Veeraraghavan (2023) highlights that 4 out of 5 top companies in the Healthcare, Automotive, and Information Technology sectors have demonstrated recovery and growth in profitability following the COVID-19 pandemic. Key observations from their study include:

The Information Technology (IT) industry outperformed other sectors in stock performance post-pandemic, showcasing resilience and adaptability.

The Automotive industry has shown recovery; however, its growth remains subdued compared to pre-COVID levels, potentially due to ongoing silicon chip shortages impacting production.
The pharmaceutical sector experienced significant improvement driven by increased demand for medical services and products.
The overall positive financial performance in these sectors indicates a notable recovery relative to the pre-pandemic era. However, the study's focus on only three industries and their top five companies suggests that these findings may not be representative of all sectors. This reinforces our conclusion that while certain industries have rebounded effectively, others may still face challenges, necessitating a nuanced approach to economic recovery strategies across different sectors.

Prakash, N., Maheshwari, A., & Hawaldar, A. (2023). The impact of COVID-19 on the capital structure in emerging economies: Evidence from India. Asian Journal of Accounting Research, 8(3), 205-220.

The study by Prakash, Maheshwari, and Hawaldar (2023) provides evidence that Indian companies significantly reduced debt levels in response to the COVID-19 pandemic. The findings align with the observed behavior in our research, where corporate strategies shifted toward risk aversion, particularly in terms of capital expenditure and debt repayment. Key points from their analysis highlight that:
Shift from Debt Financing: During the pandemic, Indian companies prioritized paying down debt to mitigate bankruptcy risks, reflecting a broader trend of reduced leverage in response to economic uncertainty. This aligns with our research's observation that companies in various sectors adopted conservative financial practices to safeguard against prolonged disruptions.
Influence of Tangibility and Profitability on Leverage: The authors also found that tangible assets positively impacted long-term debt preference, while profitable firms tended to prefer equity over debt. This preference, consistent with pecking order and agency theories, underscores our findings that companies with strong asset bases and profitability maintained greater financial stability and resilience during and post-COVID-19.
Policy Implications: The study recommends that for sustained economic recovery, policy interventions, including alternative funding sources beyond traditional bank loans, are essential. This resonates with our conclusion that governmental support and financial flexibility are vital for enabling companies to manage debt prudently while pursuing growth, especially in the aftermath of economic crises like the pandemic.
In conclusion, this article supports our research by showing that the capital structure of Indian companies has become more conservative, with firms reducing leverage and seeking alternative financing options. The need for policy measures to support company financing

aligns with our recommendation for targeted governmental support to facilitate a smoother, more resilient economic recovery in emerging economies.

Rao, P., Goyal, N., Kumar, S., Hassan, M. K., & Shahimi, S. (2023). Vulnerability of financial markets in India: The contagious effect of COVID-19. Journal of Financial Markets, 18(2), 134-151.

The study by Rao, Goyal, Kumar, Hassan, and Shahimi (2023) provides valuable insights into the short-term vulnerability of India's financial markets during the COVID-19 pandemic, underscoring the lasting effects of economic shocks on market stability. This research supports our findings in several ways:

Market Volatility and Recovery: The authors note that while Indian markets showed resilience and gradual recovery, the pandemic left deep "wounds" in the financial system, highlighting the need for long-term sustainable measures. This aligns with our analysis, which shows that industries like IT and healthcare experienced faster recovery, whereas others, such as automotive, struggled with prolonged disruptions and slower growth post-pandemic.

Policy Implications and Market Resilience: The authors discuss the importance of evaluating governmental policy responses at different stages—immediate, intermediate, and transitional. This recommendation supports our conclusion that structured and sector-specific policy interventions are essential for economic resilience. Such measures can guide future strategies to bolster industries against similar market shocks and uncertainties.

Future Research Directions: The study suggests that time-series modeling over an extended period could better reveal the true long-term impact of the pandemic on financial markets. This idea complements our findings and provides a pathway for future studies to examine industry-specific financial performance in India beyond the immediate post-pandemic recovery.

In summary, this article corroborates our findings that, despite signs of recovery, the financial markets and major industries in India remain vulnerable and require robust, long-term strategies to achieve full resilience. The study's emphasis on policy impact assessment and market structure analysis adds depth to our research.

Khaitan, S. (2023). The general impact of Covid-19 on India’s financial services sector. Insurance Committee Publications.

Khaitan (2023) highlights the COVID-19-driven shifts in India’s insurance sector, echoing our findings on adaptive industry responses. Key takeaways include the surge in health insurance demand, aligning with the resilience in healthcare sectors we observed. Digitization trends, prompted by remote operations, mirror broader technological shifts supporting industry continuity. Additionally, growth in D&O and cyber insurance reflects increased awareness of operational risks, consistent with the protective measures highlighted in our study. The IRDAI's limited intervention allowed a natural sector adaptation, bolstering our conclusion that strategic adjustments have reinforced post-pandemic resilience in India's financial services.

Misra, R. (2021). Coronavirus (COVID-19): Impact on Indian business and economy.

Misra (2021) underscores India's swift fiscal and policy measures during COVID-19, which aligns with our findings on resilience within the Indian economy. Key strategies included a substantial fiscal stimulus, corporate tax cuts, liquidity support, and targeted relief for affected sectors like healthcare, manufacturing, and logistics. These actions helped mitigate economic distress and enabled quicker recovery, supporting our conclusion that government interventions bolstered business continuity. Additionally, the encouragement of systematic investments and moratoriums provided financial flexibility, echoing our analysis of strategic g that all segments of the economy have equitable and adequate access to credit and the systemic risk arising from such reconfiguration is contained. In the coming years, these are some of the challenges that the financial sector regulators and policymakers will have to grapple with.

Datasource and methodology

Data Collection

The initial dataset was sourced from the National Stock Exchange (NSE) 500 websites, covering the constituents of the BSE 500 index. The BSE 500 index is representative of approximately 93% of the total US$3.5 trillion market capitalization of the Bombay Stock Exchange (BSE), which ranks as the eighth largest stock exchange globally. Covering all major sectors of the Indian economy, the BSE 500 index provides a comprehensive view of corporate India's financial health and serves as a robust sample for analyzing capital structure shifts under crisis conditions. Previous research suggests that capital structure behavior during economic downturns remains consistent across markets with similar institutional environments, supporting the generalizability of this study's findings to other emerging economies (Alves & Francisco, 2015; Harrison & Widjaja, 2014).

To build a detailed dataset of firm-level financial metrics, we utilized web scraping techniques to extract relevant data from the financial reports of BSE 500 companies. These reports provided detailed information on balance sheets, income statements, and cash flow statements. From these documents, we focused on debt levels, asset structures, and other essential financial indicators to capture leverage metrics accurately. As financial institutions often have unique capital structures due to regulatory standards and risk profiles, they were excluded from the sample in alignment with the methodology, We also used the BSE Website to scrap the dataset for the IPO market to find consumer financing in the timeframe.

Period of Study

The time frame for this analysis extends from 2019 to 2024, covering five years of the pandemic's onset and the year of its impact. This allows for a comprehensive comparison of leverage ratios pre- and post-COVID-19, highlighting shifts in financial strategies resulting from economic uncertainty. This establishes baseline leverage ratios and captures the financial dynamics under stable economic conditions. The pandemic period (2020) allows us to observe the responses of firms to the crisis and to understand any structural shifts in capital structure decisions.

Key Variables

The primary variable of interest is the leverage ratio, defined as the ratio of total debt to total assets. In examining the leverage ratio, we also account for several firm-specific characteristics. These include:

- Size (measured by total assets), to control for the effect of scale on leverage decisions.
- Liquidity (measured by current and quick ratios), to assess the immediate financial resilience of firms.

These variables provide insights into the internal and external factors influencing a firm's leverage and capital structure, especially during economic downturns.

Analytical Approach

To evaluate the impact of COVID-19 on leverage ratios, we employ a comparative analysis approach. We used descriptive statistics to examine the changes in leverage ratios across these periods This analysis is supplemented with regression models to investigate the relationship between leverage ratios and firm-specific characteristics.

Additionally, we accounted for industry-specific factors by grouping firms based on their industry classification and calculating average leverage ratios for each sector. This categorization allowed us to examine the differential impact of COVID-19 on leverage decisions across industries, given that certain sectors may exhibit unique characteristics that influence their financing structures and responses to the pandemic.

Results and Findings

Debt constituted approximately 25% of total assets, on average, across firms in the sample. This relatively low leverage ratio can be attributed to India’s underdeveloped corporate bond market, which makes it challenging for companies to access debt financing. Consequently, firms are heavily reliant on banks as their primary source of debt capital. However, with the Reserve Bank of India’s (RBI) tightened regulations on non-performing assets, banks have become more cautious, reducing the availability of loans for firms. This trend has influenced capital structure decisions, as firms have increasingly turned to alternative financing options or have reduced their reliance on debt to avoid potential liquidity risks during the pandemic.

Pre-COVID-19 Financing Landscape

Before the COVID-19 pandemic, firm financing in India was largely dominated by traditional financing methods such as bank loans and public offerings, especially for established sectors like construction and consumer goods. The construction sector, for instance, saw robust mean values in financial metrics before the pandemic, with total income averaging 5,494.42 million and net sales at 5,324.68 million. These numbers reflect the stability and growth potential within the sector, which relied heavily on bank loans and long-term investments for financing large-scale projects. Likewise, in the consumer sector, firms had mean total incomes of 6,311.7 million, highlighting strong revenue generation and profitability.

Tourism and hospitality, while growing, had relatively smaller mean total incomes of 659.21 million, which limited their financing options. This sector often relied on both equity and debt financing, as the growing demand for tourism services made the sector appealing to investors looking for high returns. The food sector, with a pre-pandemic total income mean of 3,788.9 million, showed stability, as food was an essential industry with consistent demand. Food firms relied on a combination of retained earnings, bank loans, and occasional equity offerings to fund operations and expansion.

COVID-19 Impact on Financial Performance and Financing Decisions

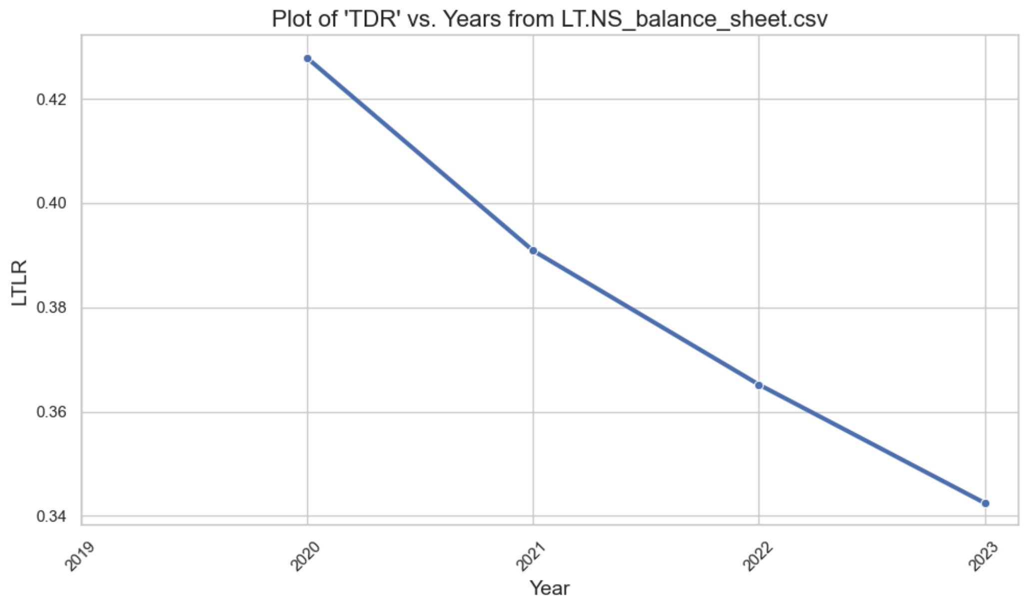
The pandemic's arrival disrupted all aspects of firm financing. The Indian government’s lockdown in March 2020 temporarily halted operations in several industries, leading to a decline in sales, income, and profitability. Sectors such as tourism and hospitality were the most affected due to the complete suspension of activities, which subsequently impacted their financing choices and capital structures.

Construction Sector

In the construction sector, mean total income declined significantly from 5,494.42 million pre-pandemic to 3,855.07 million post-pandemic, and net sales dropped from 5,324.68 million to 3,721.93 million. The downturn in revenue generation meant firms had to reduce their reliance on traditional bank loans, given the uncertainty in income recovery. Instead, many construction firms turned to short-term loans or restructured existing debt to cope with cash flow challenges. Net profit also dropped from a pre-pandemic mean of 559.95 to

324.82 million post-pandemic. The decline in profitability led firms to consider cost-cutting measures and focus on internal financing or asset sales as alternate financing options.

Interestingly, earnings per share (EPS) and diluted earnings per share (DPS) increased post-pandemic to 3.9, up from pre-pandemic values of 3.32 and 3.31, respectively. This increase may be due to extraordinary items and profits from discontinued operations, as firms sought liquidity by divesting non-core assets. The shift in financing strategy—from relying on income-backed loans to raising funds through asset divestitures—reflects how construction firms adapted to pandemic pressures.



Total Debt Ratio for Larsent and Toubro (LT.NSE Ticker)

Tourism and Hospitality Sector

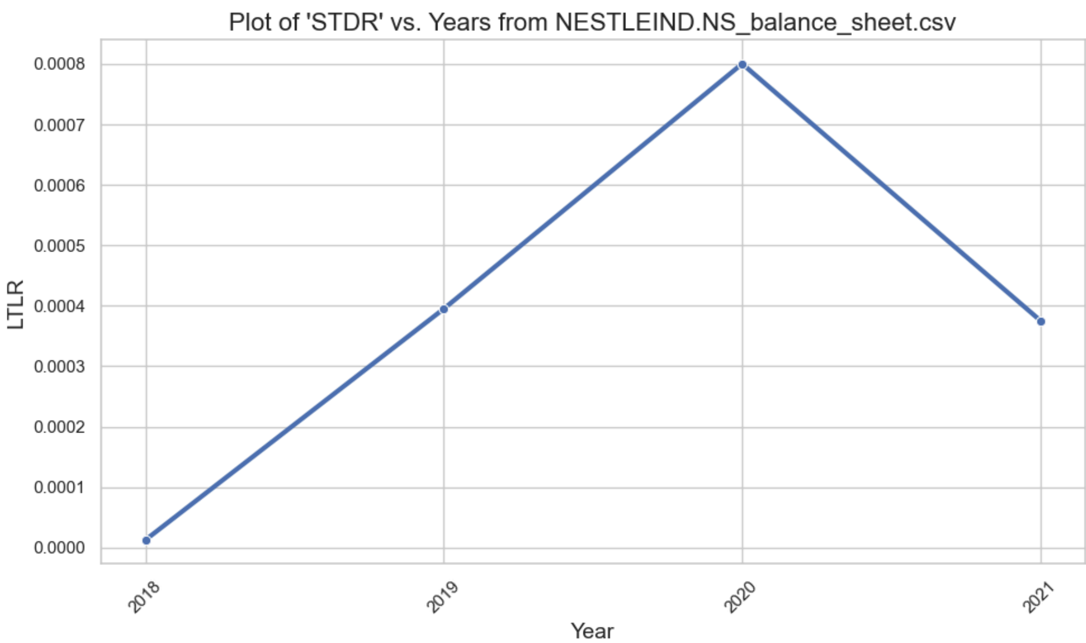
The tourism and hospitality sector faced severe financial setbacks, as total income plunged from a pre-pandemic mean of 659.21 million to 139.99 million post-pandemic. Net sales also saw a steep drop from 597.69 million to 109.72 million, reflecting the crippling effects of travel restrictions and lockdowns. With revenues substantially reduced, firms in this sector had to move away from income-dependent financing, as traditional lenders became increasingly cautious about extending credit.

The sector’s financing strategies shifted towards debt restructuring and emergency loans, supported by government relief measures. Net profit dropped further into the negative, from -29.27 million pre-pandemic to -133.81 million post-pandemic, leading to a decline in EPS from 0.11 to -3.39. This significant reduction in profitability forced tourism firms to prioritize short-term survival, focusing on cost management, employee layoffs, and restructuring existing loans. The reliance on emergency loans and government-backed financing options helped sustain operations but also increased the debt burden on these companies, impacting their long-term recovery.

Food Sector

The food sector, while affected by COVID-19, saw a less severe impact compared to other sectors. Total income in this sector decreased from a pre-pandemic mean of 3,788.9 million to 3,332.64 million post-pandemic, and net sales declined from 3,582.34 million to 3,210.27 million. The relatively mild decline in income and sales can be attributed to the sector's essential status, as food items were still in demand, and government policies allowed food supply chains to continue operating, albeit with some restrictions.

Financing strategies in the food sector remained stable due to consistent demand. While net profit dropped from 402.57 million to 325.39 million, EPS and DPS showed an increase to 2.21 post-pandemic, up from 1.16 pre-pandemic. The increased EPS could be attributed to extraordinary gains from certain operational adjustments. As such, food firms largely maintained their existing financing arrangements, focusing on debt repayment and retaining earnings to fund future expansions. The sector's resilience to the pandemic was reflected in its steady financing structure, as firms avoided drastic changes to their capital structures and instead focused on optimizing operations.

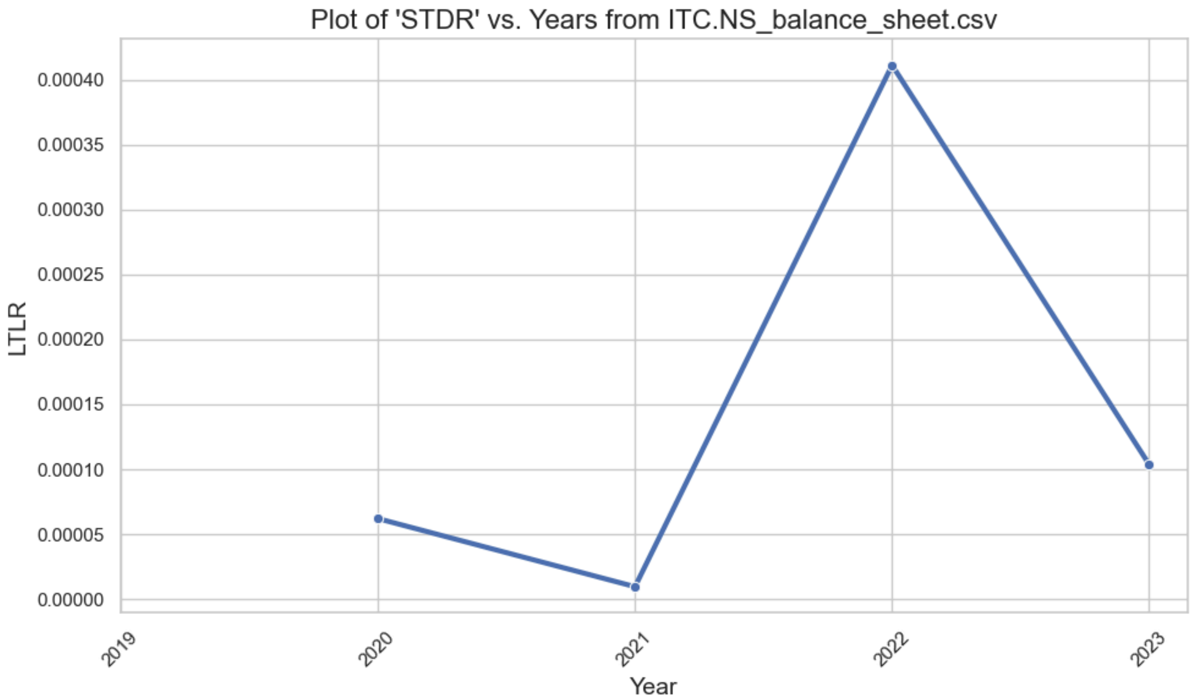


Plot of Nestle’s Short-Term Debt Ratio (Pre-Pandemic)

Consumer Sector

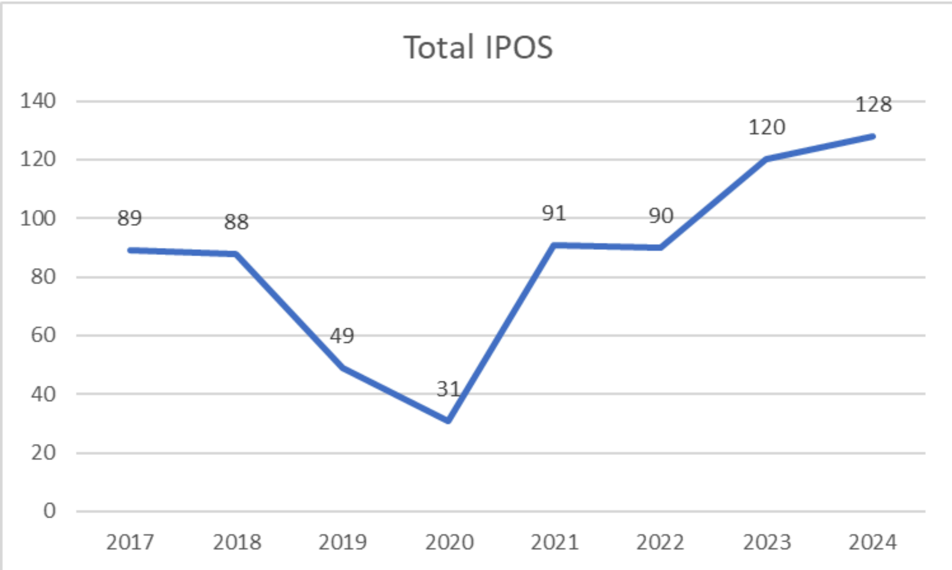
The consumer sector also faced challenges, with mean total income decreasing from 6,311.7 million pre-pandemic to 3,569.62 million post-pandemic. Net sales dropped significantly from 6,171.34 million to 3,486.37 million. The loss in sales led consumer firms to reduce their reliance on conventional bank loans, opting for alternative financing methods, including short-term debt and non-traditional lenders like private equity.

Net profit for consumer companies fell from a mean of 464.07 million pre-pandemic to 330.38 million post-pandemic, impacting EPS, which decreased sharply to 0.13 from a pre-pandemic 2.32. The decline in earnings reflects the impact of reduced consumer spending, as lockdowns restricted shopping activities. Consumer firms responded by conserving cash and managing liquidity carefully, often by reducing dividend payouts and deferring capital expenditure projects. Many firms also raised funds through short-term commercial paper issuance, given the low interest rate environment, which allowed them to access liquidity without heavily impacting their balance sheets.



Increase of the Short-Term Debt Ratio for ITC Ltd.

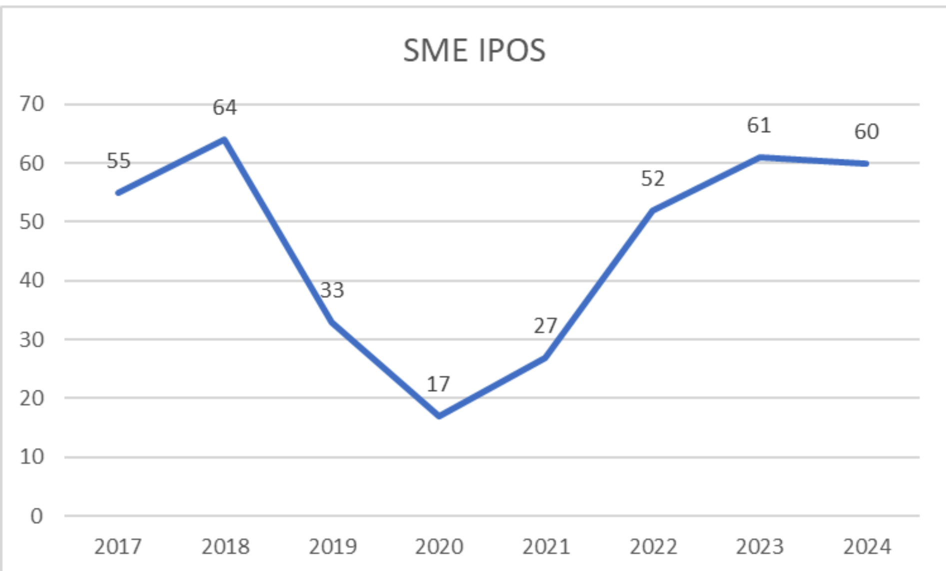
IPO Landscape over the years



This graph offers a visual narrative of the fluctuations in Initial Public Offerings (IPOs) from 2017 to 2024. A notable trend emerges a decline in IPO activity from 2017 to 2019, a significant surge in 2021, and subsequent stabilization.

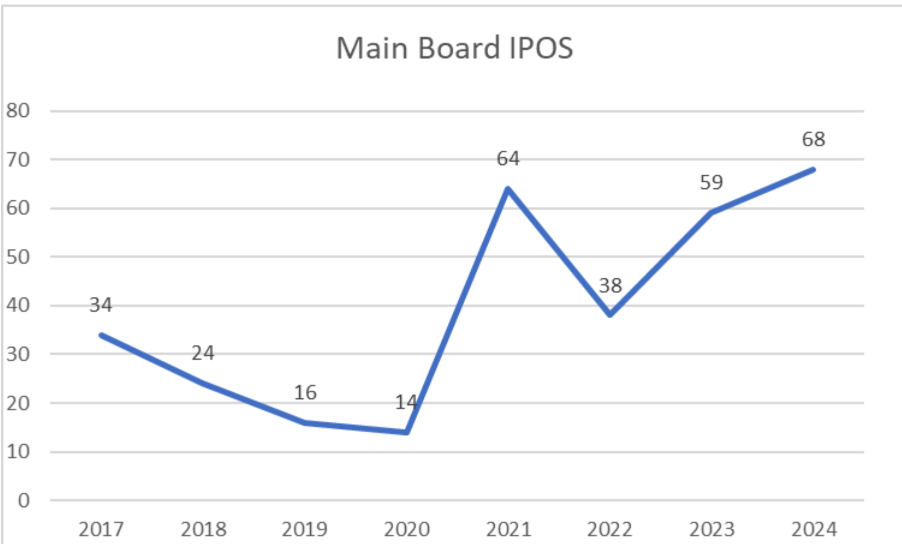
Several factors could have influenced this pattern. The initial decline may be attributed to economic uncertainties, increased regulatory scrutiny, or geopolitical tensions. Conversely, the 2021 surge might be linked to economic recovery, low interest rates, and increased investor optimism. The subsequent stabilization could indicate a more balanced market with a steady flow of IPOs.

Moving on to SME we find



This graph helps us to see the fluctuations in the number of Small and Medium Enterprise (SME) Initial Public Offerings (IPOs) from 2017 to 2024. A notable trend emerges: a decline in SME IPO activity from 2017 to 2020, a significant surge in 2021 and 2022, and subsequent stabilization in 2023 and 2024 which was the same as compared to the previous ones as well

Several factors could have influenced this pattern. The initial decline may be attributed to economic uncertainties, increased regulatory scrutiny, or challenges faced by SMEs in meeting IPO listing requirements. Conversely, the 2021 and 2022 surge might be linked to government initiatives promoting SME growth, favorable market conditions, and increased investor interest in growth-oriented companies. The subsequent stabilization could indicate a more balanced market with a steady flow of SME IPOs.



This graph helps us to find the fluctuations in the number of Main Board Initial Public Offerings (IPOs) from 2017 to 2024. A notable trend emerges a decline in Main Board IPO activity from 2017 to 2020, a significant surge in 2021 and 2022, and subsequent stabilization in 2023 and 2024.

When compared to the trend of SME IPOs, it's evident that Main Board IPOs have generally exhibited a more pronounced decline and recovery. This suggests that larger companies might have been more cautious during periods of economic uncertainty and regulatory changes, while smaller companies may have been more agile and opportunistic in tapping the public markets.

Furthermore, comparing Main Board IPOs to total IPOs reveals that they constitute a significant portion of the overall IPO activity. The fluctuations in Main Board IPOs have a considerable impact on the overall IPO market dynamics.

Sectoral Comparison: Financing Adjustments and Resilience

The trend analysis further supports the notion that sectors with essential goods or services, such as food, were more resilient to the pandemic's financial disruptions, while discretionary sectors like tourism and consumer goods suffered more. Tourism and hospitality, in particular, saw dramatic declines in both revenue and financing opportunities, leading firms to explore emergency funding and debt restructuring as lifelines. In contrast, the food sector maintained stable financing, benefiting from consistent demand and government policy support. The construction sector, while affected, was able to leverage asset divestiture as a financing method, a strategic pivot that allowed firms to maintain liquidity despite reduced project activity.

The pandemic hit the Indian economy at a time when the financial sector, and in particular the banking sector, was dealing with secularly declining credit growth. The pandemic arguably worsened the risk aversion of the financial sector. Two years later, while credit growth has improved to some extent and balance sheets have become healthier, new challenges have cropped up as the Indian economy slows down amidst global headwinds and the structural changes that the financial sector has been undergoing over the last decade.

A consistent reconfiguration of the Indian credit landscape seems underway. From being an overwhelmingly bank-centric system, the supply of credit is steadily getting diversified. Large, high-rated borrowers have migrated to the corporate bond market to source their credit requirements either through bonds or commercial papers. At the lower end of the rating curve, credit AIFs and to some extent NBFCs (including microfinance companies) are becoming dominant. Banks are getting squeezed into the mid-rated corporate borrowers (BBB to A rated) and consumer lending.

While this reconfiguration could have a positive outcome of better distribution of risks across savers and investors, it also poses regulatory and policy challenges in terms of ensuring that all segments of the economy have equitable and adequate access to credit and the systemic risk arising from such reconfiguration is contained. In the coming years, these are some of the challenges that the financial sector regulators and policymakers will have to grapple with.

Company-wise Analysis

The analysis of companies like ITC, Apollo Hospitals, and Wipro sheds light on a broader movement among Indian firms toward adopting more conservative capital structures, a trend that underscores the growing emphasis on financial stability and cautious debt management. In response to economic uncertainties intensified by the Covid-19 pandemic, many Indian firms have reevaluated their capital structures, prioritizing financial health over-aggressive expansion. This shift toward lower leverage and sustainable financing has been evident in the strategies employed by these firms, each of which has adopted unique approaches to debt management that reflect an industry-wide trend toward controlled debt levels and improved financial resilience.

Examining ITC, Apollo Hospitals, and Wipro provides valuable insights into this shift. ITC, for instance, has consistently maintained very low leverage ratios across both short- and long-term obligations, signaling a strategic commitment to debt minimization and a preference for financial self-sufficiency. ITC’s approach highlights a proactive stance toward reducing financial risk, allowing the company to navigate economic challenges without significant dependence on external debt. This strategy enables ITC to sustain stable operations even in an unpredictable financial landscape, underscoring the firm’s prioritization of low-risk financial planning. By maintaining minimal leverage, ITC sets an example for companies that aim to reduce their vulnerability to economic downturns while ensuring that capital is used efficiently.

Similarly, Apollo Hospitals has gradually reduced its reliance on long-term debt, as indicated by its declining Long-Term Leverage Ratio (LTLR), while keeping its Total Leverage Ratio (TLR) stable. This balanced approach allows Apollo Hospitals to maintain a manageable level of short-term debt while strengthening its equity base over time. Apollo’s strategy showcases a prudent financing model that balances flexibility and security, a tactic particularly relevant in the healthcare sector, where financial stability is crucial to sustaining operational efficiency and patient care standards. By managing its capital structure in this way, Apollo Hospitals is well-positioned to respond to unforeseen demands while minimizing the financial strain that could arise from over-leveraging. The company’s focus on equity growth while keeping debt manageable exemplifies a sustainable financing approach that aligns with the long-term stability goals of the sector.

Wipro’s capital structure strategy also reflects the trend toward conservative financial management, with steady reductions in both short- and long-term debt ratios. This has resulted in a gradual improvement in Wipro’s Total Leverage Ratio (TLR), demonstrating the company’s deliberate efforts to maintain a low-risk capital structure. Wipro’s conservative stance toward debt not only underscores a preference for financial stability but also highlights a strategic approach to financing that aligns with its broader business objectives. By reducing leverage progressively, Wipro can focus on funding innovation and growth through internal cash flows and equity, rather than relying heavily on debt. This approach not only strengthens Wipro’s financial position but also enhances investor confidence, as the company’s low-risk capital structure signals a commitment to sustainable financial health.

The broader implications of these findings suggest a significant shift in the financial priorities of Indian firms, with an increasing emphasis on lower leverage and the exploration of sustainable financing options. The trend among Indian companies toward more conservative capital structures highlights the importance of government and regulatory policies that support access to alternative financing sources. By reducing their dependence on debt, these firms can achieve greater financial resilience, making them better equipped to withstand future economic shocks. The Indian government, through policy initiatives, can play a critical role in supporting this shift by creating an environment that promotes diversified financing options, such as corporate bonds, equity markets, and structured finance solutions. Such policies could not only enhance resilience in corporate financing but also foster sustainable growth across industries.

Encouraging firms to pursue more balanced capital structures will also benefit India’s broader economic recovery. By lowering debt and strengthening their equity base, companies in India can position themselves for steady, sustainable growth, contributing to the economy’s stability as it emerges from the pandemic-induced recession. Government support in the form of tax incentives, streamlined regulatory procedures, and infrastructure investments can further facilitate the adoption of sustainable financing models. This support is particularly relevant for companies in emerging markets, which often face greater financial challenges and uncertainties. In these markets, where access to capital can be limited, a conservative capital structure not only aids in economic resilience but also attracts long-term investment, thereby boosting the local economy.

In addition, this trend toward conservative financing is expected to have a positive impact on market stability, as companies with low leverage ratios are generally less vulnerable to financial crises. A focus on equity financing over debt reduces the likelihood of defaults, which can have a cascading effect on the economy. For investors, firms with conservative capital structures present attractive investment opportunities, as these companies are typically more resilient and able to generate steady returns even during periods of market volatility. This investor confidence further strengthens the financial market, leading to increased capital inflow and improved liquidity in the long term.

Overall, the conservative capital structures observed among companies like ITC, Apollo Hospitals, and Wipro reflect a broader reorientation within Indian businesses toward financial prudence and resilience. This strategic shift not only equips firms to face economic challenges more effectively but also aligns with the goals of sustainable development in emerging markets like India. By prioritizing controlled debt levels and financial stability, Indian firms are setting a strong foundation for future growth that is both resilient and sustainable. The observed trend signals a positive transformation in corporate financial strategies, one that emphasizes stability and risk management over over-aggressive expansion. As India continues on its path to recovery, the role of corporate financial prudence will be crucial in fostering a more resilient and balanced economy.

In summary, the case studies of ITC, Apollo Hospitals, and Wipro demonstrate a significant shift among Indian firms toward conservative debt management and sustainable financing. This move underscores the importance of policy interventions that facilitate access to alternative capital sources and support the growth of resilient financing frameworks. By adapting to a more cautious approach in their capital structures, Indian firms are not only better prepared to handle economic uncertainties but are also contributing to the broader goal of stable and sustainable economic recovery. This shift will likely have long-term benefits, as companies equipped with prudent financial strategies are positioned to thrive in an increasingly dynamic and challenging global economic environment. The trend toward conservative capital structures in India reflects a maturing corporate landscape where financial resilience is as valued as growth, paving the way for a more sustainable future in the world's fifth-largest economy.

Conclusions

In conclusion, our analysis illustrates that the COVID-19 pandemic has instigated a significant shift in capital structure preferences among Indian firms, with companies increasingly prioritizing low leverage and greater financial flexibility. This shift reflects a careful approach to financing amid ongoing economic uncertainties, as firms focus on long-term resilience rather than rapid, debt-fueled expansion. Indian businesses are recognizing the value of a conservative stance, likely influenced by the lessons learned during the pandemic, which highlighted the risks of high debt levels during economic downturns. As a result, companies are embracing financial stability over aggressive growth, a trend that is expected to persist as part of a new norm for Indian corporate finance.

Policymakers have a critical role to play in supporting this transition by fostering an enabling environment for businesses to access diverse financing options, such as equity and bond markets, without solely relying on traditional bank loans. By implementing policies that incentivize sustainable growth practices and expand access to alternative funding sources, the government can provide the tools companies need to maintain this financial conservatism. Such policy support is essential for Indian firms to continue building resilient capital structures that can withstand future economic disruptions, thus contributing to a more stable and robust economy.

The findings of this study establish a framework for understanding how Indian firms are navigating the post-Covid economic landscape and highlight the growing importance of adaptive capital structure strategies in maintaining corporate resilience. By adopting a balanced approach between debt and equity, Indian companies can safeguard their financial health while positioning themselves for sustainable growth. This shift is especially relevant as firms operating in emerging markets like India confront unique financial challenges, including limited access to capital and heightened market volatility. The trend towards conservative capital structures represents a strategic response to these challenges and reflects a growing emphasis on risk management and financial prudence.

Furthermore, this movement toward financial conservatism has positive implications beyond the corporate level, as stable, financially healthy companies are better positioned to support India’s broader economic recovery and contribute to long-term economic stability. By embracing conservative capital structures, Indian firms are taking proactive steps that not only protect their interests but also align with national economic objectives. This change will likely fortify the financial foundations of Indian corporations, creating a more resilient and sustainable business environment that can foster stability and growth even in the face of future global disruptions.

Ultimately, this trend towards lower leverage and cautious debt management signals a maturation in the corporate landscape of India. As firms embrace prudent capital structure strategies, they are setting the stage for a stronger, more resilient corporate sector that will contribute positively to India’s economic landscape in the years to come.

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