THE COMMERCE SOCIETY

SHRI RAM COLLEGE OF COMMERCE

BANKING AND INSURANCE REPORT

BANKING AND INSURANCE

Introduction

Comprehensive Overview of India's Banking and Insurance Sectors

India's banking industry, under the vigilant oversight of the Reserve Bank of India (RBI), exhibits robust capitalization and strict regulations, distinguishing it favorably on the global stage. Despite challenges posed by global financial crises, Indian banks have showcased resilience against credit, market, and liquidity risks.

The recent incorporation of pioneering banking models such as payments and small finance banks, coupled with strategic initiatives like the Pradhan Mantri Jan Dhan Yojana and Post Payment Banks, underscores India's commitment to expanding banking accessibility. Key reforms in areas like neo banking, digital payments, and the dynamic growth of Non-Banking Financial Companies (NBFCs) and fintech have significantly elevated financial inclusion and stimulated the nation's credit cycle.

Anticipated to reach USD 150 billion by 2025, India's fintech market stands as the world's third-largest ecosystem, boasting recognition for over 2,000 Financial Technology (FinTech) companies and indicating rapid expansion.

India's digital payment system, especially the Immediate Payment Service (IMPS) and Unified Payments Interface (UPI) has not only gained global acclaim but has achieved a level five ranking on the Faster Payments Innovation Index (FPII), revolutionizing real-time payments and expanding its international reach. Similarly, The insurance sector in India emerges as a high-growth dustry, witnessing an impressive annual growth rate of 32–34% in life insurance. This growth is attributed to increasing incomes, heightened industry awareness, and intense competition driving the development of cutting-edge products. The Insurance Regulatory and Development Authority of India (IRDAI) oversees licensing, allowing up to 26% foreign direct investment in the sector.

Comprising 57 insurance companies, with 24 specializing in life insurance and 34 in non-life insurance, the sector showcases diversity. Noteworthy innovations, updated laws, and proposed changes in 2022 have created new growth opportunities for the industry. The IRDA remains forward-thinking, committed to the mission of achieving "Insurance for all by 2047."

The expansion of the insurance market is fueled by significant government initiatives, democratic elements, a supportive regulatory environment, collaborations, innovative products, and active distribution channels. The industry has profoundly experienced a transformative shift from traditional offline channels, dominated by banks, corporate agents, and brokers, to a digitized landscape, offering consumers a variety of channels for insurance purchases. The COVID-19 pandemic has underscored the importance of investments in products like life insurance for bolstering financial security, prompting a notable shift in consumer behavior.

Global Significance of Indian Banking and Insurance in Economic Dynamics

The profound impact of India's banking sector on the global economic landscape is rooted in its fundamental role as a cornerstone for the nation's economic development. The efficiency of banking operations is a linchpin for meaningful contributions to the process of nation-building.

In the context of global economic dynamics, the Indian banking industry emerges as a key driver of business expansion, establishing numerous branches to foster international relationships and actively participating in trade and commerce. Offering payment solutions to both domestic and foreign companies, Indian banks play a pivotal role in supporting and stimulating the global economy.

The financial stability of the Indian economy owes much to the robust banking system, providing safe and secure financial services while actively contributing to the growth of businesses. Services such as cash card facilities, cash deposits, and money orders empower individuals to fuel the expansion of their enterprises on a global scale.

Integral to India's economic development, cash management enables banks to offer instant cash and money transfers, providing a diverse range of services globally. The significant role of banking in facilitating loans for business establishments and industrial units streamlines global financial transactions, supporting economic processes on an international level. The active lending activities in the Indian banking industry significantly impact the global economy, providing essential financing to priority sectors such as real estate, small-scale manufacturing, agriculture, and trading businesses. The industry's contribution to global financial security is underscored by offering affordable interest rates, dependable remittance services, and opportunities for saving and investment in various financial instruments.

Beyond monetary services, banks globally play a vital role in safeguarding valuables like gold, silver, and diamonds, establishing themselves as trusted entities for individuals' possessions. This dependability factor is reinforced through the provision of services like checkbooks, credit cards, and debit cards on a global scale.

Simultaneously, India's insurance industry adds a significant layer to global economic dynamics, offering not only financial security but also substantial employment opportunities for millions. The industry's commitment to diversity is reflected in its workforce, with approximately 60% comprising women.

The expansion of the insurance industry, marked by the availability of over 1400 offices across districts and tehsils, contributes to extending financial services to underserved and rural areas on a global scale. Mandates for life insurers to hold specific percentages of policies in the rural sector during the initial years contribute to socio-economic development in these regions.

his not only fosters a sense of security among individuals and businesses globally but also serves as an educational tool, raising awareness about various hazards and encouraging global risk mitigation practices.

Purpose of the Report

Analyzing Key Trends

The financial sector is undergoing a substantial transformation driven by the sweeping tide of digital advancements. Particularly in retail and mobile banking, technology is revolutionizing daily operations, responding to the increasing demand from Gen Z and Millennials for a seamless digital experience.

In anticipation of potential economic challenges and recessions in 2024, banks are strategically reassessing their approaches. A prevalent tactic involves making prudent investments to ensure long-term success while maintaining cost-effectiveness. Despite the challenges, the banking sector foresees prosperous times ahead, characterized by significant changes that render businesses proactive, inventive, and adaptive. Emphasis is shifting towards digital innovation activities, moving away from mere augmentation to true invention.

Concurrently, the insurance sector is experiencing a profound transformation in response to unforeseen events. The focus is on addressing technical debt through flexible business models, cloud migration, and the digitization of essential processes. Recent years have witnessed a noticeable surge in the adoption of technology within the insurance industry.

Insurance firms are revisiting their business strategies due to factors such as the rise in direct-to-customer sales, escalating risk concerns, and the demand for personalized experiences. According to Gartner, only 8% of Chief Information Officers (CIOs) in the insurance industry have implemented crucial business composability componentsDespite the rapid technological advancements in recent years, both banking and insurance organizations are increasingly leveraging technology to enhance client digital experiences and improve operational efficiency. Key trends identified by research from Gartner and Forrester shed light on the trajectory of the industry

- Banks are expected to artificially generate 20% of test data for consumer-facing use cases (Gartner). - The banking and investment sector is projected to spend over USD 260 billion on IT overall (Gartner). - Over 70% of banks prioritize cost-cutting as their top priority (Forrester).

- Banks are urged to redirect innovation expenditures towards operational efficiency rather than the metaverse (Forrester).
- More than 60% of insurance customers express a desire to receive advice from providers on preventing losses and filing claims (Gartner).
- Over 60% of insurance Chief Information Officers (CIOs) have aligned business processes with technology capabilities (Gartner).
- Incumbent insurers are expected to explore newer embedded channels for service and product distribution (Forrester).

Assessing Challenges and Opportunities

The financial sector is experiencing a profound transformation due to the digital disruption tsunami. In the banking industry, traditional norms are being reshaped by intensified competition from FinTechs, evolving business models, heightened regulatory requirements, and disruptive technologies. Similarly, the insurance sector grapples with challenges stemming from rivalry, profitability demands, and a race to the bottom in premium rates.

Challenges and Opportunities in Banking

1. FinTech Disruption: The emergence of FinTech and non-bank entities poses a serious threat to traditional financial institutions. To stay competitive, banks are exploring joint ventures and acquisitions, inspired by FinTech’s ability to provide streamlined consumer experiences.

2. Regulatory Compliance: Navigating complex regulatory frameworks is a challenge for the banking sector. Adhering to changing rules, such as Basel's risk-weighted capital requirements, Dodd-Frank, and CECL, demands substantial resources. Technology serves as a crucial tool for compliance through data collection, analysis, and reporting.

3. Cultural Shift: A shift toward technology-driven solutions is underway in the banking industry. Organizations must foster an innovative culture, leveraging technology to streamline processes and boost productivity. Embracing the digital revolution is essential for survival and growth.

4. Increasing Competition: FinTechs are expected to divert trillions of dollars in annual revenue from traditional financial institutions. Banks must adapt to sustain profitability by offering personalized services and enhancing customer experiences, learning from the successful FinTech model.

Challenges and Opportunities in Insurance

1. Financial Strains: Insurance companies' increasing reliance on investment portfolios raises concerns about sustainability and profitability. The perceived "race to the bottom" in premium rates challenges the industry's traditional approach and calls for innovative solutions.

2. Diversity in Distribution: Despite the emergence of new channels, traditional distribution methods dominate the insurance sector. Improving distribution, including online and point-of-sale avenues, is imperative for enhancing penetration and density rates in the Indian insurance market.

3. Regulatory Scrutiny: Ensuring compliance with international norms for the capitalization of the insurance sector requires rigorous regulatory scrutiny. Additionally, the integration of technology in the insurance industry, or "InsurTech," necessitates careful oversight to balance innovation with risk reduction and customer safety.

4. Risk-Based Capital Framework: Low capital levels underscore the need for regulatory attention in India's insurance industry. Implementing a risk-based capital structure enhances resilience and stability by aligning capital adequacy with underlying risks.

In summary, both the financial and insurance industries face a spectrum of challenges, including pressure to maintain profitability, cultural shifts, competitiveness, and regulatory compliance. However, within these challenges lie opportunities for creativity, collaboration, and technological breakthroughs that can steer these sectors toward a more customer-centric and sustainable future.

Examining Regulatory Landscape

India's financial landscape is intricate, comprising vital sectors such as capital markets, banking, insurance, and pension funds. These industries wield significant influence over the nation's economic environment, necessitating effective regulation. Independent bodies entrusted with overseeing activities, enforcing regulations, and ensuring the integrity of the financial system play a pivotal role in shaping the regulatory landscape.

In the banking sector, both public and commercial entities play substantial roles in financial transactions and savings. Capital markets facilitate investments and fundraising through securities trading, while the insurance industry provides risk protection, and pension funds offer financial security post-retirement. Government-established financial regulatory agencies in India have distinctive and crucial roles in preserving the integrity of these industries. Serving as vigilant guardians, these impartial regulators prevent malpractices and fraud, safeguarding the interests of the public and investors.

The Reserve Bank of India (RBI), as the nation's central bank, holds a crucial regulatory role over non-banking financial enterprises, and commercial and cooperative banks. Beyond monitoring, the RBI controls money, sets monetary policy, and promotes economic stability. Its responsibilities encompass regulating the money supply, determining key interest rates, and striking a balance between price stability and economic growth. Correspondingly, India's insurance sector is closely monitored by regulatory agencies with specific duties, with the Insurance Regulatory and Development Authority (IRDA) being the primary regulating body. Established in 1999, the IRDA oversees licensing, registration, and compliance with pricing and product development requirements. It safeguards policyholders' interests, ensures regulatory compliance, and supports the financial stability of insurance companies.

Understanding the regulatory environment is imperative for consumers in the insurance industry. With multiple bodies overseeing activities, consumers must comprehend the responsibilities of each regulatory entity. The regulatory system guarantees protection against fraud and abuse, fair procedures, and transparency for policyholders. Regulation significantly impacts insurance services in India, ensuring the preservation of policyholders' interests through timely claim settlements and equitable treatment. The IRDAI's regulations contribute to the financial stability of insurance businesses by establishing capital standards, preventing insolvencies, and ensuring policyholders are not left without coverage.

Regulation also fosters competitiveness in the insurance industry. The IRDAI encourages market entry by granting licenses to new businesses and intermediaries, promoting competition that benefits customers with potentially lower costs and improved services.

In summary, examining the regulatory landscape governing India's insurance and financial industries reveals a framework designed to safeguard customers, preserve financial stability, and encourage healthy competition. Regulatory authorities play a pivotal role in creating an open and equitable business environment, ensuring the continual expansion and advancement of these crucial industries.

Banking Industry Overview

Market Size and Structure

Global Banking Industry Statistics

A favorable wind seems to have returned to the banking industry's sails. Global banking has witnessed its most prosperous 18-month period, surpassing the overall performance observed since 2007. This success is attributable to the increasing interest rates which have surged profits in a benign credit environment.

The trend dictates that financial transactions have stayed away from traditional banks towards non traditional institutions and capital-light parts of markets that are subject us entities such as insurance and pension funds, sovereign wealth funds, public pension funds, private capital, and other alternative investments. Additionally, retail and institutional investors were involved in the handling and management of these funds. This shift off the balance sheet is a global phenomenon. In the United States, 75% of net increase in financial funds ended up off banking balance sheets while the same figure in Europe was 55%. Finally, the growth of private debt also paints the transition from traditional institutions. In 2022, private debts experienced a significant increase of 29%, mainly fueled by direct lending. Apart from this, the management of transactions and payments by people and to different sets of regulations. For instance, between 2015 and 2022, over 70% of the total increase in financial funds wasn't held by traditional banks, but rather by various

More than 70 percent of the net increase of financial stock happens off-balance-sheet.

Fig 3.1

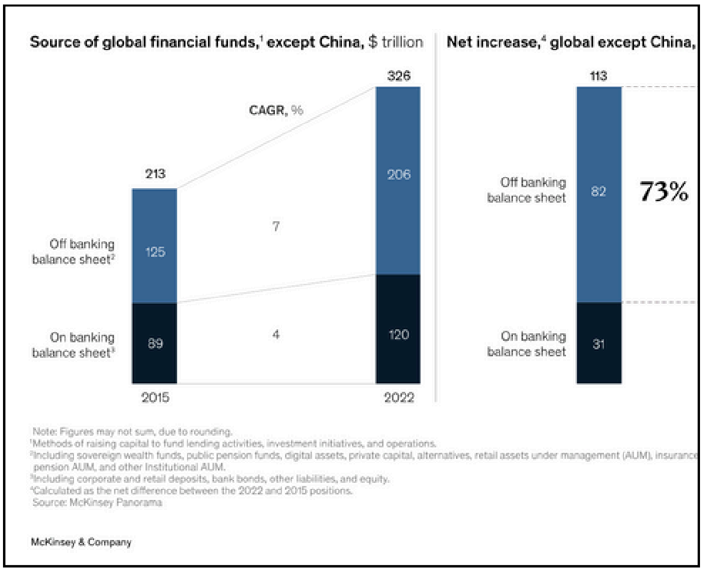
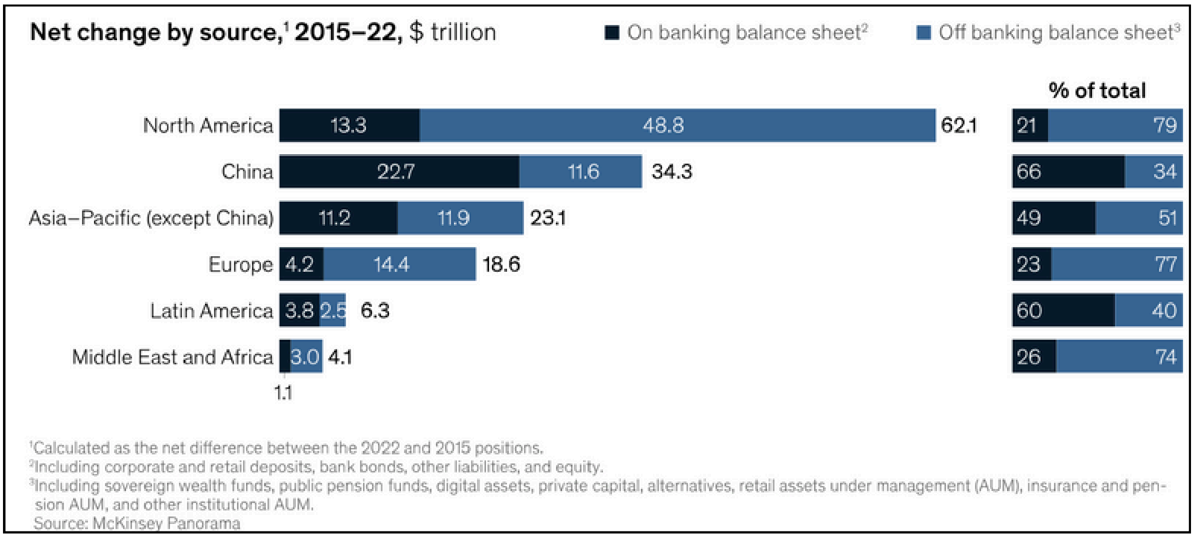


Fig 3.2: **The shift toward off-balance sheet is a global phenomenon.**



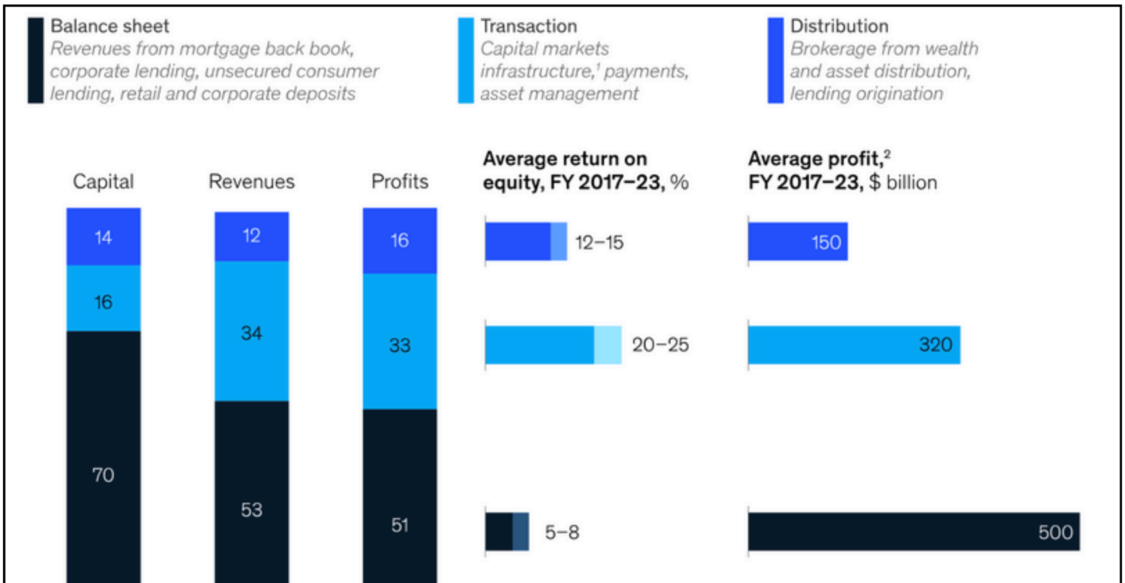


Fig 3.3

businesses is also changing. For instance, there is a surge in the use of digital payment services by 50% from 2015 to 2022.

Thus to understand the overview of the global banking sector, it is essential to increase the scope of the definition of banks to all financial institutions excluding insurance companies. The recent upswing is the result of a sharp increase in interest rates in many advanced economies, an illustration of the same is the 500-basis point rise in the United States. This has resulted in an improvement in net interest margins and return on equity(ROE). The

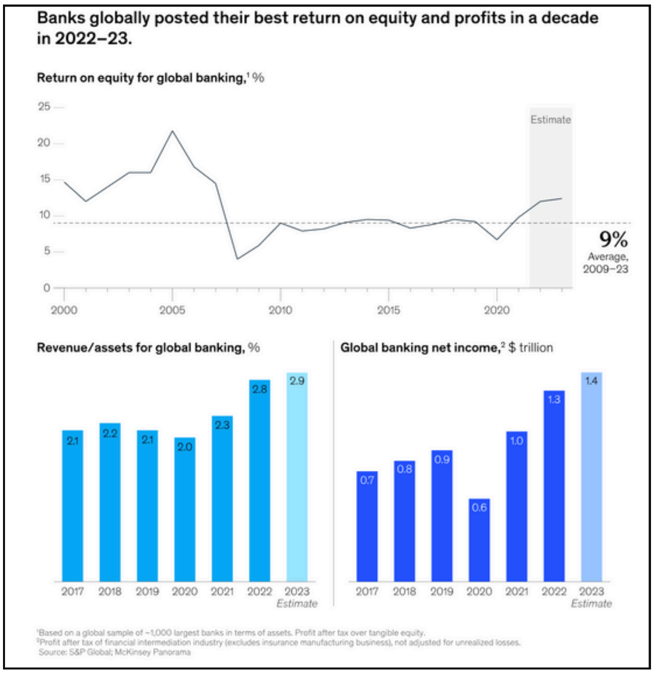


Fig 3.4

The profits of the sector skyrocketed by about $280 billion in 2022 and ROE to 12% in 2022 and expected 13% in 2023 as compared to the average low of 9% since 2010. This growth has been accompanied by continuous cost improvement. The cost-income ratio dropped to 52 percent in 2022 from 59 percentage points in 2012 and a similar trend is witnessed in the cost-per-asset ratio.

The collapse or rescue of high-profile banks in the United States, the government-brokered takeover of Credit Suisse, and the obstacles faced by fintechs and cryptocurrency players, all these aspects can be traced down to the volatile conditions prevalent in the banking sector. There have been great variations in the performance which has been displayed by the players, from 40 percent of payment providers reporting having an ROE above 14% to 35% stated to have the same below 8%. A similar trend has extended among wealth and asset managers, wherein if more than one-third have an ROE above 14 percent they are accompanied by more than 40% who have it below 8%. These variations indicate that the factors such as operational excellence, cost efficiency, customer retention, etc are key bases of difference between strong performer

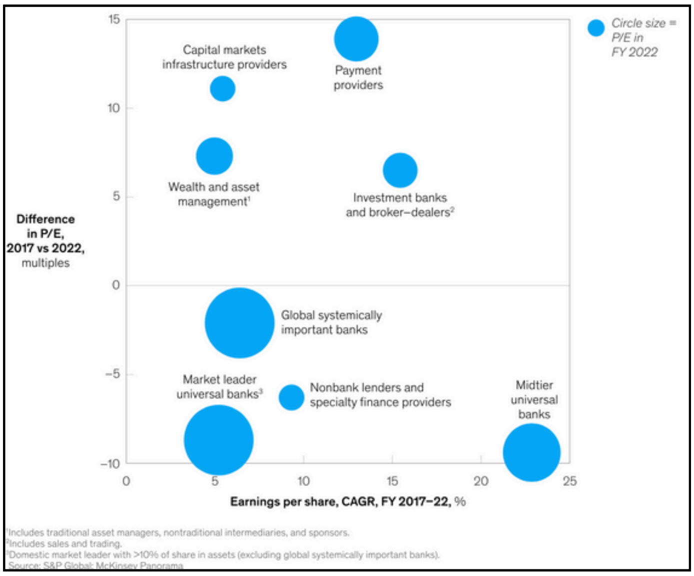


Fig 3.5

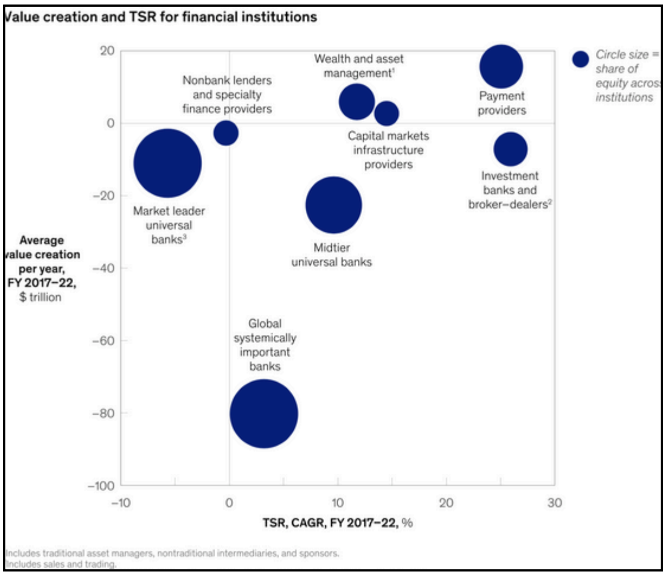


Fig 3.6

and those who have lagged. Banks grouped along the stretch from Singapore to India, Dubai, and parts of eastern Africa are home to top performers of the sector, while those in Europe, the United States, China, and Russia have struggled to generate revenues sufficient to match their cost of capital, illustrating that geographic divergence has further widened. The price-to-book ratio is a single factor that has remained flat at 0.9 since the 2008 financial crisis. Regards with the future of financial institutions is expected to be shaped by four global trends namely-

(i) Substantial shift in the macroeconomic environment;
(ii) Technological progress;
(iii) Broadening and deepening of regulatory scrutiny of non-traditional institutions by world governments and
(iv) shift in systemic risk.

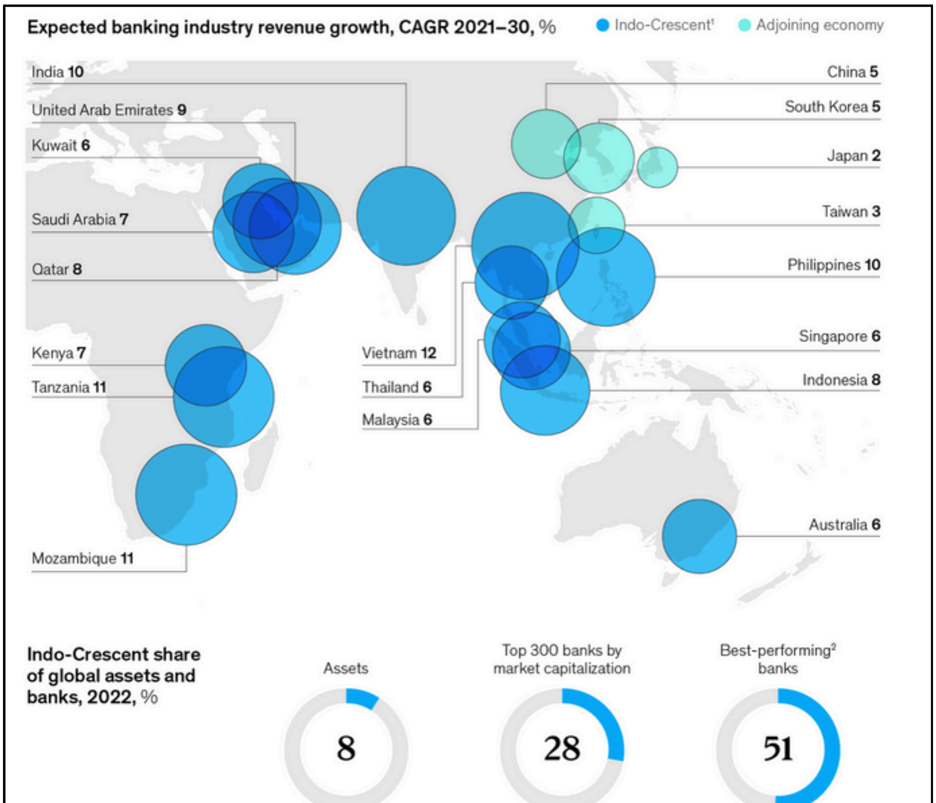


Fig 3.7

Regional Variations

A bank's choice of operation in an area is influenced by the extent of the interconnected nature of the economic activities of a business unit and the people in that area. Thus, to comprehend the regional variations in the Indian banking industry it is essential to determine the various economic activities conducted in each state and the contribution of those activities to the state's GDP (SGDP). Further, the importance of the bank's different operations in each state is measured by calculating the proportion of each bank group's deposits to the total deposits of the banks. A bank group with a significant proportion of deposits from the state is vulnerable to the cyclic nature of the economic activities of the states. The economic activities that are demonstrated in the following table are equivalent to portfolio assets and the growth rates of these activities at the national level are parallel to returns.

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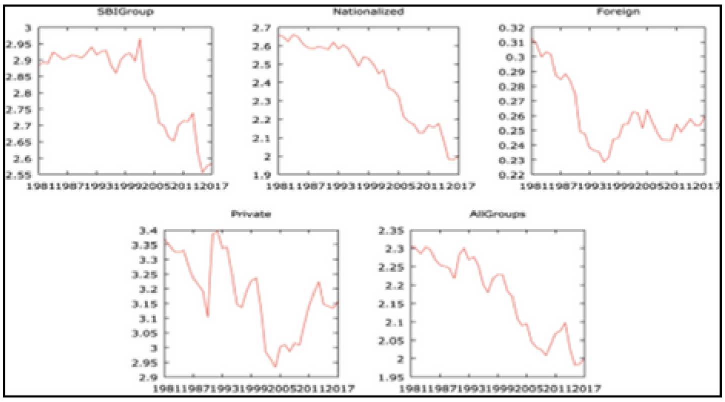
The return on the environmental portfolio is measured by taking into consideration the aforementioned factors and the risk of the environmental portfolio is determined by a bank group's portfolio's variance.

Fig 4.1



The average variability of environmental portfolios of Indian banks is presented in the above data for 1981-2017. The general trend is portfolio risk for all bank groups has reduced, however, the portfolio risk for public sector banks (i.e. SBI and Nationalised) has shrunk significantly which could be interpreted due to changes in their operations enforced by the structural reforms introduced.

In the case of private banks, the portfolio risk initially rose, then fluctuated in the subsequent years. In recent years it started to increase. The primary reason for this could be that private banks are on more commercial lines and concentrated in metropolitan and urban areas as compared to public sector banks, which are still directed to obtain certain policy objectives.

Sl No	Component
1	Agriculture and allied activities
2	Mining and quarrying
3	Manufacturing
4	Construction
5	Electricity, gas and water supply
6	Trade, hotel, transport and communications
7	Finance, insurance, real estate and business services

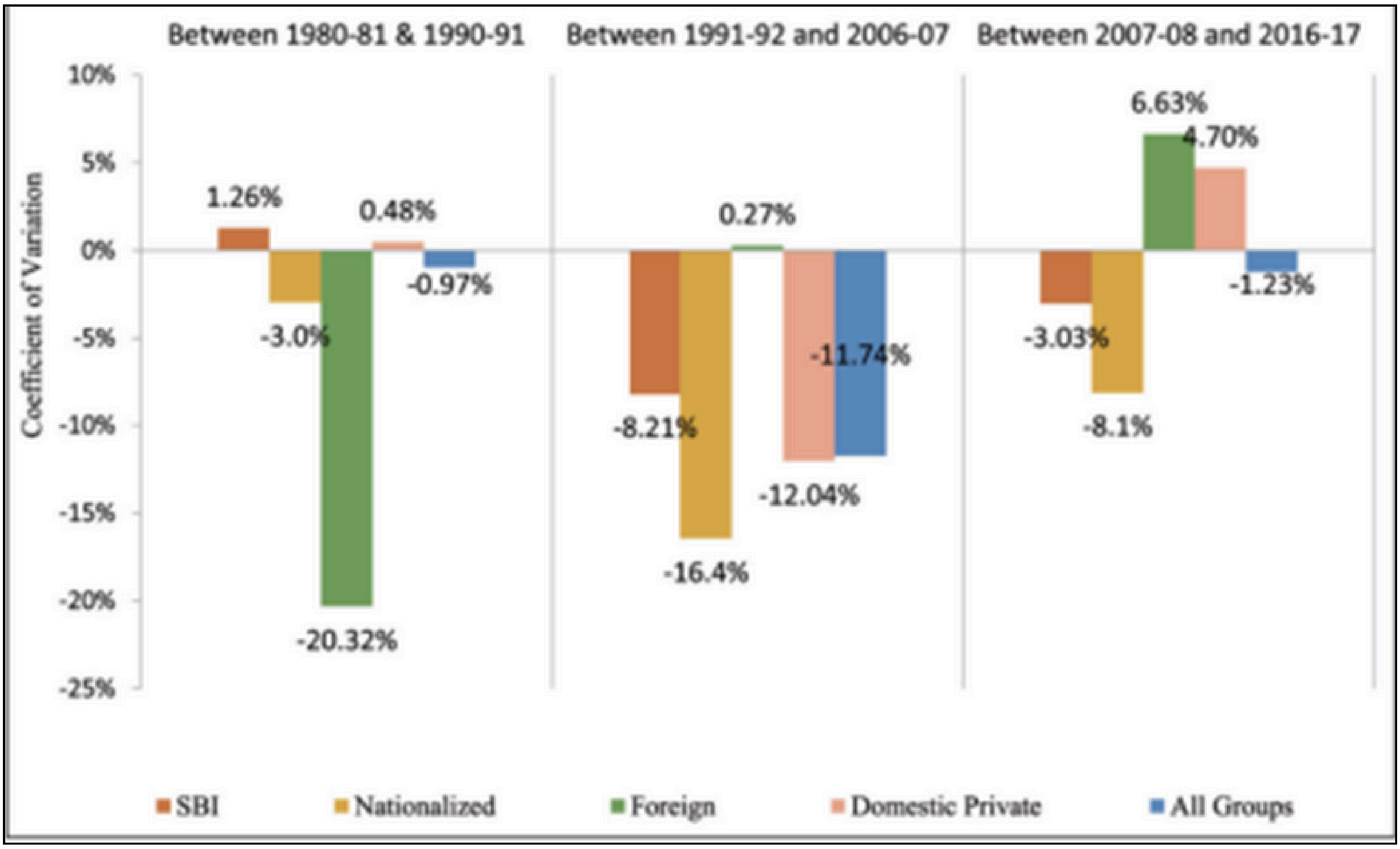
Fig 4.2

For instance, of the 359.9 million accounts opened under the Jan Dhan Yojana as of 26 June 2019, 347.3 million (96.5%) were opened by public sector banks, and only 12.6 million (3.5%) by private sector banks (Ministry of Finance, 2019).

This orientation of objectives restricts the geographic expansion and diversification of private sector banks and increases the concentration of services in certain areas. The empirical findings reveal that banks' performance varies by region in India and that there is a geographical divide across the country.

gThe northern and northeastern regions are the most distant from each other in terms of the spread of financial services. Because of the region's low banking penetration, the statistics also show a stronger growth trend in the northeastern area. The bank-led approach to financial inclusion has received attention in India. The graph shows the percentage change in geographic diversification in Indian banking. The data presents that major geographical change took place in the period 1991-92 to 2006-07 except for foreign sector banks

Fig 4.3



Key Players

HDFC Bank

The Housing Development Finance Corporation (HDFC) bank was incorporated in august 1994 with its registered office in Mumbai as part of the liberalisation policy for the Indian banking industry initiated by the Reserve Bank of India. It began operation in January 1995, with its area of operation still being the landmass of India. HDFC Bank, a private company, is one of the largest banks in the nation when assessed in terms of assets and market capitalization. In addition to transactional and branch banking for the retail market, HDFC Bank offers a broad range of banking services for the wholesale market, including investment and commercial banking.

HDFC Bank revenue for the quarter ending September 30, 2023 was $13.016B, a 111.71% increase year-over-year. Moreover, It witnessed an annual revenue of US $24.102 billion, which is a 14.2% increase from 2022, and it holds assets worth US $320 billion. As of June 2023, it operates through 8,344 branches spread across the nation and has 19,727 ATM operational in 3,811 cities of India. Finally, it employees 1,77,000 people.

SBI

The Bank of Calcutta was founded in Calcutta on June 2, 1806, marking the beginning of the nineteenth century and the birth of the State Bank of India. After obtaining its charter after three years, the bank was redesigned as the Bank of Bengal (2 January 1809). It was a singular establishment, the first joint-stock bank in British India supported by the Bengali government. The Bank of Bengal was followed by the Bank of Bombay (15 April 1840) and the Bank of Madras (1 July 1843).

Up until their merger as the Imperial Bank of India on January 27, 1921. Further it was nationalised as SBI by the government of India on 2 June 1956.

State Bank of India (SBI) a Fortune 500 company, is an Indian Multinational, Public Sector Banking and Financial services statutory body headquartered in Mumbai. It provides varying products and services : consumer banking, corporate banking, finance and insurance, investment banking, mortgage loans, private banking, private equity, savings, securities, asset management, wealth management and credit cards.

SBI, the largest bank in India with a quarter of the market, provides services to more than 48 crore clients via its extensive network of more than 22,405 branches, 65,627 ATMs/ADWMs, and 76,089 BC shops.

Through its several subsidiaries, including SBI General Insurance, SBI Life Insurance, SBI Mutual Fund, SBI Card, etc., the Bank has effectively diversified its commercial operations. It now has 235 offices scattered across 29 other nations, allowing it to operate across time zones and expand its global reach. In 2023, it reported a revenue of US $750 billion and provided employment to 2,36,116 as of September 2023.

ICICI Bank

Industrial Credit and Investment Corporation of India was established in 1955 as an initiative of the World Bank. In the 1990s, it transitioned its business from a financial institution limited to development projects to a diversified financial group, which also symbolised the merger of ICICI with ICICI bank highlighting its newly adopted universal group. It being one of the leading private sector banks of the nation is headquartered in Mumbai and serves its products which comprises credit cards, consumer banking, corporate banking, finance and insurance, investment banking, mortgage loans, private banking, wealth management, personal loans and payment solutions across the globe.

As of FY 22-23, it served over 3,49,42,237 clients through its 5900 branches and 16650 ATMS. In 2023, it recorded a balance sheet of US $250 billion and hired 1,30,452 employees at the end of 2022. It reported the revenue for the twelve months ending September 30, 2023 to be $25.813B (a 21.52% increase year-over-year) and annual revenue of US $23.27 billion for 2023 (a 10.24% increase from 2022).

Axis National Bank

Commencing operations in 1994, Axis Bank is among the pioneering private sector banks of the new generation. Together with Life Insurance Corporation of India (LIC), General Insurance Corporation of India (GIC), National Insurance Company Ltd. (NIC), The New India Assurance Company Ltd. (NIA), The Oriental Insurance Company Ltd. (OIC), and United India Insurance Company Ltd. (UIIC), Specified Undertaking of Unit Trust of India (SUUTI) (formerly known as Unit Trust of India) jointly promoted the bank in 1993.

The third-biggest bank in India's private sector is called Axis Bank. The Bank provides the full range of financial services to its clientele, which includes retail businesses, MSME, large and mid-sized corporations, and agricultural companies. The Bank operates a vast network of more than 15,000 ATMs and cash recyclers around the nation in addition to its 5100+ domestic locations (including extension counters). As of March 31, 2023, the Bank employed over 1,500 Virtual Relationship Managers throughout 6 Axis Virtual Centers. The Bank's overseas operations are divided among three foreign offices, including a representative office in Abu Dhabi and branches in Gift City, IBU, and Dubai (DIFC). Corporate Lending, Coverage Business, Trade Finance, Syndication, Investment Banking, Liability Businesses, and Private Banking/Wealth Management solutions are the main areas of focus for the overseas operations.

Axis Bank has had steady expansion, with a balance sheet size of Rs. 13,17,326 crores, 91989 employees and revenue of US $170 billion as of March 31, 2023. Over the past five years (2017–18 to 2022-23), the bank's total assets and advances and deposits have grown at a CAGR of 14% and 16%, respectively.

Key Banking Services

Retail Banking

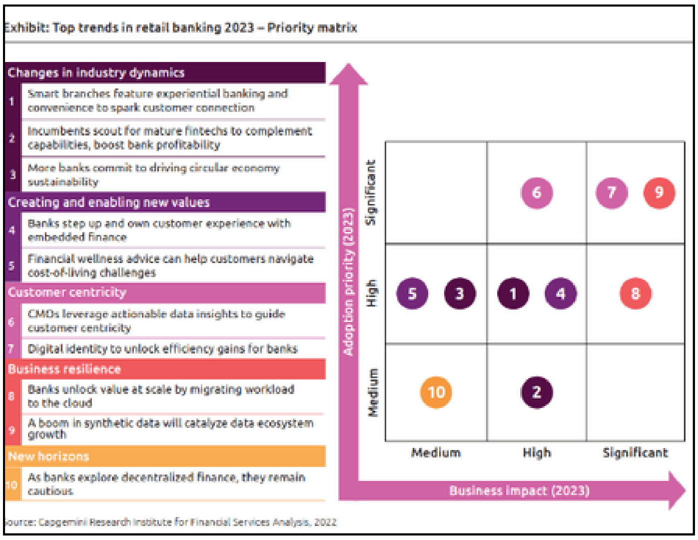
Retail Banking is a mechanism for individual consumers to manage their money,have easy access to credit and securely deposit their funds. Services offered include savings and current account, mortgages, fixed deposits, loans,credit & debit cards, insurance and investment products. The majority of the customers prefer to make use of local branch banking services due to the provision of onsite customer service for all banking needs of the customers. Financial representatives provide reliable customer services and astute financial advice to the customers through the local branch locations.

The lead contact for underwriting applications related to credit approved products are also financial advisors. Retail banks also serve as an invaluable source of credit for individuals in the form of mortgages, auto loans or credit cards. This forms a crucial dimension of the economy as it empowers customers with liquidity, thereby facilitating the growth of the economy.

The Importance of Retail Banking :

1. Monitoring Financial Health : Retail banking provides customers with an extensive variety of banking

Fig 4.4



services ranging from managing their bank accounts, tracking their expenses, monitoring their credit score, planning for their financial goals to managing their loans.

2. Ease of Use & Security : Retail banking enables customers to save, borrow and invest their money in a secure and regulated environment. By depositing their money in a savings or fixed deposit, customers achieve twin objectives-safeguarding their money from theft or loss and earning interest.

3. Easy Access to Credit : Establishing and building credit history is made possible by retail banking. Credit cards and loans provide customers with an opportunity to demonstrate their competency to borrow and repay money, thereby enabling them to qualify for bigger loans in the future.

4. Financial Literacy : Retail banks provide financial guidance to enable customers to manage their money and make wise financial decisions

The Impact of Digitalisation on Retail Banking:

1. Online and Mobile Banking : On account of digitalisation, customers can now access their bank accounts through a multitude of web and mobile apps. This has drastically enhanced the accessibility and convenience for banking by empowering users to view their account balances, transfer money, pay bills and apply for loans anytime, anywhere.

2. Digital Payment Solutions : The tremendous success of digitalisation has led to the evolution of peer to peer payment systems, smartphone wallets, virtual currencies like Bitcoin etc.

3. AI and Chatbots : Retail banks also employ AI (Artificial Intelligence) and chatbots in order to automate repetitive and monotonous tasks and offer personalised customer service, thereby maximising efficiency. AI can analyse customer data and subsequently identify patterns as well as offer personalised financial guidance. Chatbots can swiftly respond to customer queries and sort out issues.

4. Digital Marketing : Retail banks are able to contact customers and widely advertise their services by making use of sound digital marketing strategies and utilising social media, email marketing and search engine optimisation. This has enabled banks to target specific customer segments and boost their marketing ROI. On account of Digitalisation, NBFCs are able to provide instant loans with faster turnaround time, inclusive of online loan applications and swift approvals through direct fund transfers.

5. Digital Identity Verification : Usage of biometrics and other technologies in order to verify customers' identities have been skyrocketing due to the rise of digitalisation. India has registered an impressive shift towards digitalisation in the retail banking sector in recent years. The Reserve Bank of India reported an increase in the number of digital transactions from 8.8 billion in 2016-17 to 34.3 billion in 2020-21.

Corporate Banking

Corporate Banking entails loaning money and providing other financial services to businesses. While investment banks might aid smaller businesses to develop, in stark contrast, corporate banks provide services to enterprises and corporations. Typically, corporate banks serve publicly traded, huge government departments and enterprises with outstanding profits and turnover.

Corporate banking, widely known as business banking or wholesale banking, serves a diverse set of clients ranging from small and mid-sized businesses to huge conglomerates. Corporate banking forms a vital profit centre for several banks. The vast sums of money loaned to corporates and the high interest received result in exceptional profits for the organisation. ICICI Bank defines corporate banking as,"They offer corporations a wide range of products and services, the technologies to leverage them anytime, anywhere and the expertise to customise them to client-specific requirements. From cash management to corporate finance, from forex to acquisition financing; they provide you with end-to-end services for all your banking needs"

The key segments of corporate banking industry are as follows:

1) Deposit Taking Institutions : Enterprises intending to earn interest deposit their money into corporate banks. Corporate banking primarily depend on individual institutions, networks of commercial banks and credit unions.

2) Mortgage Firms: These firms provide mortgages to individuals and corporations. They fund mortgages for borrowers in addition to searching for potential clients that require funding

3) Central Bank, Regulatory and Monetary Authorities: By regulating and scrutinising commercial and retail banks with the aim of decreasing inflation and stabilising the currency, these institutions endeavour to manage a location's economy. Often, comparatively smaller banks and lenders seek financial advice from these eminent institutions.

4) Non-Banking Financial Institutions : Few non-banking financial institutions like shadow banks and independent lenders, perform similar functions as banks.

5) Brokerage Firms: Brokerage firms facilitate transactions between two companies, thereby acting as an intermediary. Through the commission of the sales, these firms earn profit.

6) Financial Technology : In order to distinguish itself from the competition and the traditional way of banking, corporate banks utilise combinations of technology tools and resources. Corporate Banks offer the following products and services to corporates and other financial institutions:

1) Credit Management : Corporate customers are offered loans and several other credit services. These credit facilities account for the dominant share of profits for corporate banks. Owing to the amount of risk prevalent in loaning money to corporations, considerable interest is imposed.

2) Treasury and Cash Management Services : In order to efficiently manage their working capital requirements, companies make use of treasury services. Since it facilitates currency conversion, these kinds of services are of paramount importance.

3) Equipment Lending : Popularly known as fixed asset requirement financing services, it is primarily useful for corporations involved in capital-intensive industries such as information technology, transportation, and heavy machinery. Customised loans as well as lease agreements for the purpose of the purchase of machine equipment, are facilitated by banks.

4) Risk Management : Notably, advisory and custodial financing services are provided by banks to their clients in order to safeguard their assets, maximise liquidity and mitigate risks.

5) ASI : Wealth management services are employed y clients with high net worth use, for handling their finance and investments

6) Employer Services: Employment services such as payroll, selection of retirement plans and healthcare facilities are provided by clients.

7) Commercial Services : Services such as portfolio analysis, debt and equity restructuring, real assets analysis, leverage analysis, etc. are also offered.

Other services offered by corporate banks are:

- Overdraft Facility (OD)
- Asset Management
- Real Estate Commercial Services
- Trade Finance
- Underwriting Services
- Currency Exchange
- Mortgage Finance
- Fund Transfers/Remittances
- Bills and Receivable Discounting
- Online/Internet Banking Services
- Import/Export Bills of Collection
- Letter of Credit (LC)
- Letter of Guarantee on Shipment and Bill of Lading
- Insurance for Goods in Transit

The main source of funding available for industrial and entrepreneurial endeavours is corporate banks.

They provide firms a variety of financial services. They are therefore essential to both home and foreign trade and commerce.

For the smooth operation of small, medium, and large-sized firms, corporate banking provides its services and products. Its primary goals are to uphold the value of the currency, provide price stability, encourage the expansion of financial institutions, and foster economic expansion. The financial banking sector is undergoing fast change. It is embracing new technology to provide a safe and economical environment for everybody.

Investment Banking

Investment banking is a special segment of banking operations which helps individuals and organisations in raising capital and provides financial consultancy services to them.

The first function is performed by them by acting as the intermediaries between security issuers and investors, and helping new firms in entering the primary security markets. This function is performed by them by either buying all shares at a price estimated by the experts and then reselling them or selling the shares on behalf of the issuers and charging commission per share.

In terms of financial consultancy services provided by them it comprises them providing mergers and acquisition advisory, proprietary trading on their own accounts, restructuring which implies improving business efficiency and maximising profits and leveraged financing wherein funds are supplied in order to purchase assets or settle acquisitions.

An example illustrating how investment banks earn revenue from merger and acquisition advisory is consider a company ABC which wants to take over the business of company XYZ. However executives at ABC are not sure if the cost of the aforementioned takeover is worth the investment and seek consultancy services from an investment bank. The investment bank conducts due diligence, carries out financial valuations, assesses the synergy of the two business models and presents them in terms of forecasts and other indicators and shares their findings and professional opinion with their client.

They charge a suitable fee for these services provided by them. Post this description of the function of investment banks, it is essential to understand their operations in the contemporary investment landscape. The unprecedented health, social and economic impacts of the covid-19 global pandemic has intensified the forces which have obstructed the smooth functioning of the investment banking industry. These forces comprises of the following:

1. Falling equity shares price
2. Evolving financial regulations
3. Market democratisation, which essentially implies opening alternatives up to new investors.
4. Liquidity stress
5. Changes in technological advancements
6. Shift to remote working arrangements and,
7. Increased client sophistication

Performance in such scenarios has led to a transition from full scale service model to bifurcation of two broker archetypes : client capturers, which specialise in front office functions and flow players, which focus on middle office functions.

These archetypes will operate in a globally interconnected virtual ecosystem. A connected flow model creates cost efficiencies by standardising and centralising provision of non differentiated services. Investment banks would be able to rethink their operations along four major themes by using the connected flow model: workforce of the future, client-centricity, regulatory recalibration, and technological modernization.This will lead to increased efficiency and reduced costs. This realignment in the investment banking industry will enable the players to earn higher returns, however the essential prerequisite for this is remodelling of current business embracing new technology to provide a safe and economical environment for everybody.

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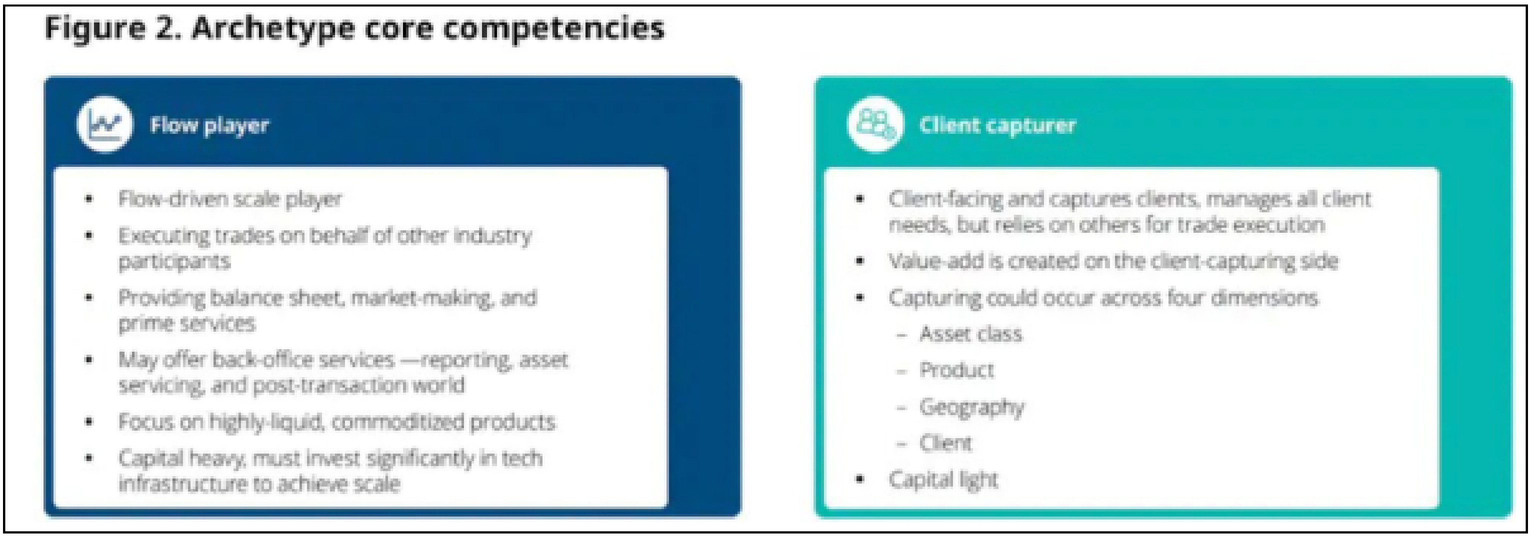
Digital Banking Trends

Digital banking has revolutionised the way customers bank and manage funds. Digital banking suggests conducting banking through a digital platform, thus eliminating the cumbersome and time consuming paperwork processes associated with conventional banking. In other words, it brings to the customers the luxury of freely accessing and performing all traditional banking activities 24X7, without having to physically go to a bank branch to get the work done. Advantages tied along with the rising wave of digital banking are vis-a-vis the following :

Fund Transfer : It removes the hassle of issuance of a cheque or demand draft for the transfer of funds. Via digital banking, it is possible to transfer funds to anyone at anytime through different modes such as IMPS, RTGS, NEFT etc.

Cash Withdrawal : Similar to fund transfer, digital banking has also eliminated the traditional long queues to get some cash in hand. There is no need to visit a bank branch, since with the establishment of an ATM at every nook and corner, it is possible to withdraw money from a nearby ATM at any time.

Fig 4.5



Access to bank statements : Digital banking can be used to download and access statements for any period at any time.

Payment of bills : Digital banking has smoothened the process of payment of bills (whether it be an electricity, gas, phone bill etc) since it provides customers different services such as auto-debit facility that enables automatic payment of bills as and when they arise.

Investments : Digital banking has brought ease to customers in terms of investment as well, for instance, the procedural time in opening a fixed deposit account has been cut down significantly. Additionally, digital banking can be used to invest in other instruments as well.

Mobile Banking : The first phase of digital banking was through the internet. This was until the rise of smartphones which marked the beginning of the second phase.

Customers can transfer funds, invest in funds, pay bills etc while commuting using their smartphones. The surge in customer demand fuelled by these advantages, as well as greater global connectivity has resulted in acceleration of digitalization in the sector over the recent year. The same is illustrated by the following trends :

Mobile banking has become the primary method of banking for many consumers. Over 2.7 billion digital banking users in 2022
Digital payments are one of the fastest growing segments.The global digital payments transaction value reached $8.35 trillion in 2022, an increase of 11% from the previous year.

Technological innovations are enabling faster, secure, inclusive and transparent transactions. Digital-only neobanks have gained popularity. Over 290 neobanks operating globally, with a combined user base of over 70 million.

Fig 4.6

These trends are based on the found of 4 pillars, as identified by mastercard, which are as follows:

1. **Grow:** It implies creation of new revenue streams via embedded finance and increasing attention towards sustainability of operations.
2. **Engage:** It involves increasing existing customer share of wallet. The modes used for this purpose includes introduction of AI enabled personalisation, gamification and open banking.
3. **Optimise :** It signifies improving the operational efficiency and ultimately cut down the costs, achieved through cross border payments, programmable payments, cloud etc.
4. **Enhance:** It means enriching the customer experience, which digital banks achieve by exploiting the contemporary technological innovations such as metaverse, all in one card etc.

Technological Innovations

Fintech Partnerships

The Fintech industry has experienced an upward trajectory for as long as one can remember. No longer made solely of startups, the industry today comprises a plethora of seasoned companies, offering a wide avenue of financial services on the global stage.

It is a common misconception that Fintech is the result of a recent series of technological breakthroughs. Rather, the fundamental concept has existed for quite some time. In the 1950s, early credit cards were introduced and represent the first fintech product at the public's disposal. Since then, fintech has evolved into bank mainframes and stock trading platforms. A revolution came in the form of PayPal in 1998. It became one of the first fintech companies which primarily operated on the Internet. A testimony to Fintech's profound influence, Goldman Sachs used fintech to launch an online bank, Marcus, in 2016. Notably, JP Morgan Chase invested $25 million in fintech startups in 2019. Fintech facilitates hastening processes that earlier took far too long.

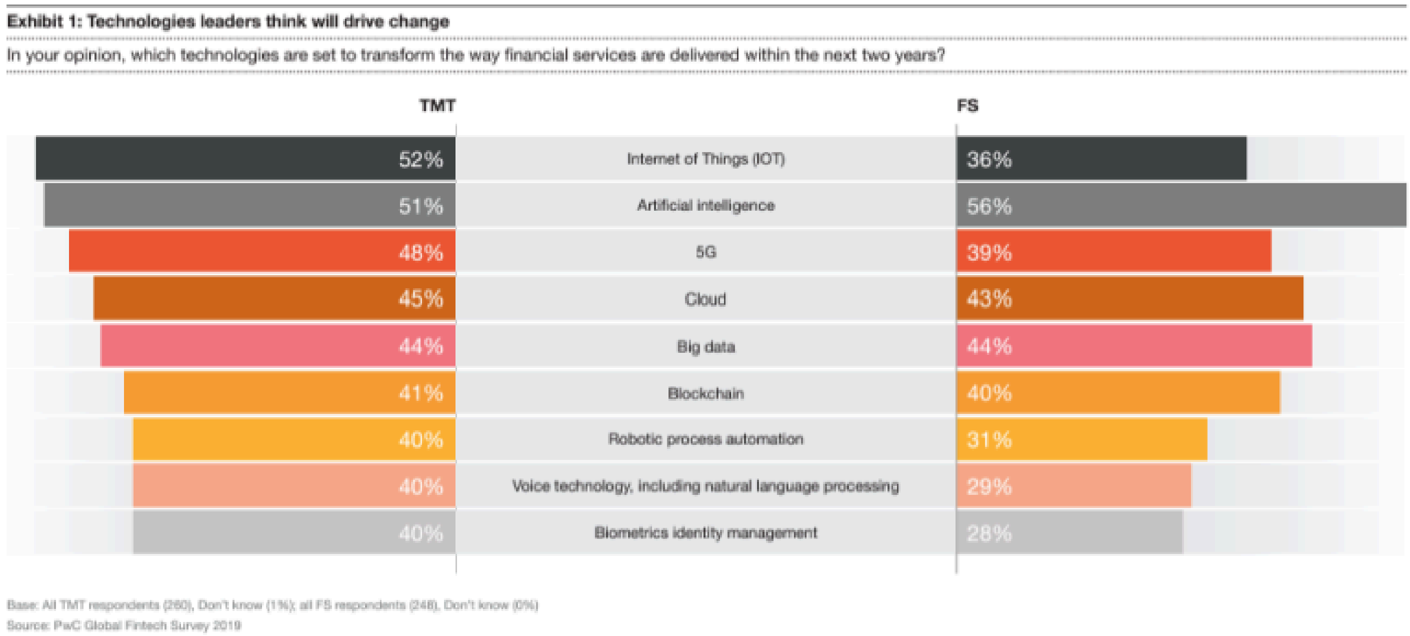


Fig xyz

The adoption of FinTech services has experienced remarkable growth, from merely 16% in 2015 to 33% in 2017, to an astonishing 64% in 2019. With the accelerating increase in awareness about Fintech, it was reported that 96% of consumers are aware of at least one alternative Fintech service available to them for transferring money and making payments.

A Fintech company utilizes technology to modify, enhance, and automate financial services. We are surrounded by Fintech technology in our everyday lives, ranging from mobile banking, peer-to-peer payment services, and automated portfolio managers to trading platforms.

Internet of Things, Augmented reality and virtual reality, smart contracts, bots, and voice-enabled payments are some fascinating technologies impacting the ever-changing fintech landscape.

Fig 4.6

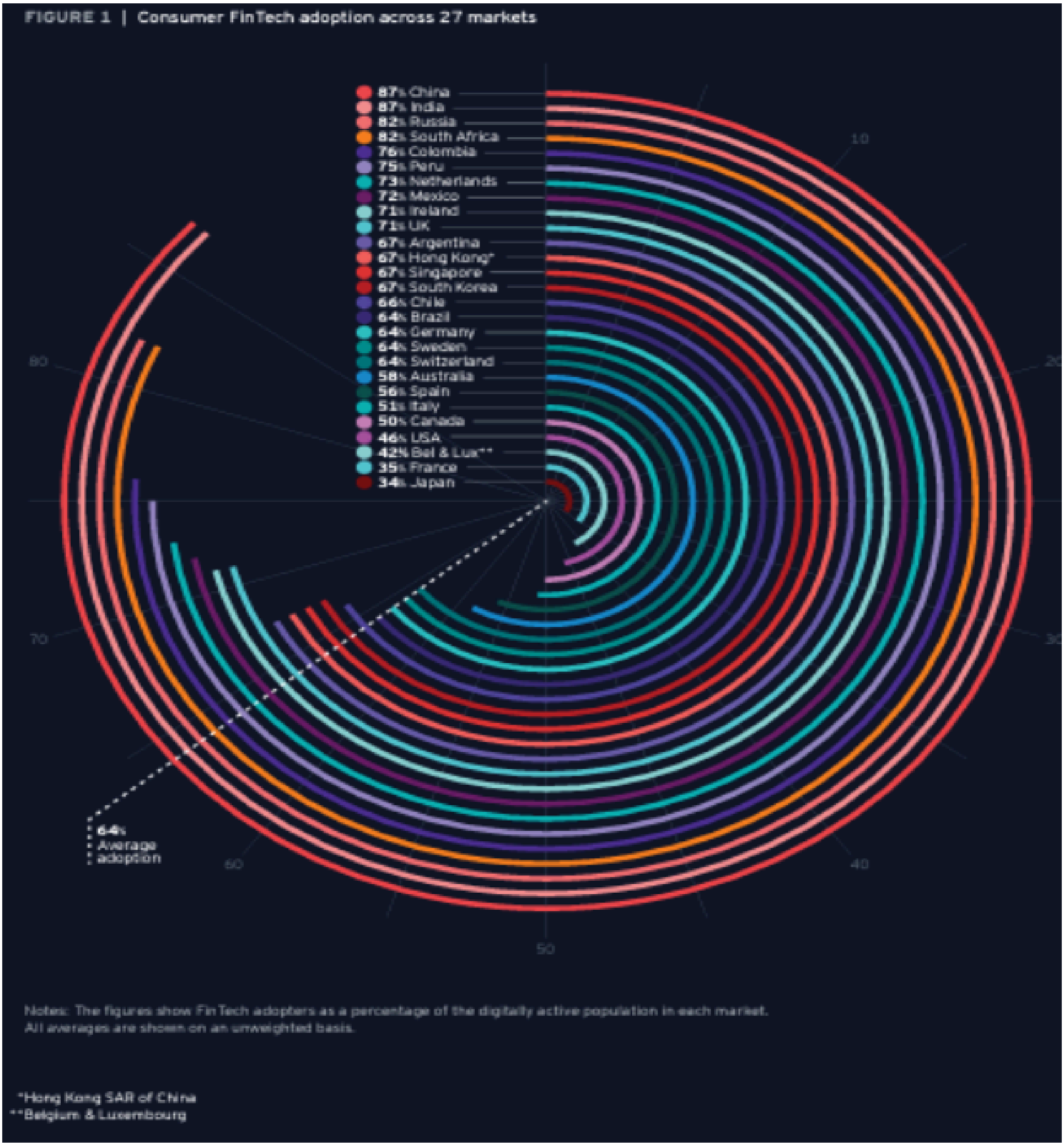


FIGURE 1 | Consumer FinTech adoption across 27 markets
87% China
87% India
82% Russia
82% South Africa
76% Colombia
75% Peru
73% Netherlands
72% Mexico
71% Ireland
71% UK
67% Argentina
67% Hong Kong*
67% Singapore
67% South Korea
66% Chile
64% Brazil
64% Germany
64% Sweden
64% Switzerland
58% Australia
56% Spain
51% Italy
50% Canada
46% USA
42% Bel & Lux**
35% France
34% Japan
64% Average adoption
10
20
30
40
50
60
70
80
Notes: The figures show FinTech adopters as a percentage of the digitally active population in each market.
All averages are shown on an unweighted basis.
*Hong Kong SAR of China
**Belgium & Luxembourg

Blockchain and Cryptocurrencies

Revolutionizing financial institutions, blockchain technology has radically reshaped the financial landscape. Rather than replacing the already existing market, this technology has created its market and has fostered an avenue to bank the unbanked. The profound impact of blockchain technology on financial institutions can be illustrated as follows:

1) Enhanced Service: Blockchain enables personalized services to customers that suit specific needs.

2) Cost Reduction

3) Shift in Control: The incessant and rapidly growing demands for open and secure financial transactions reflect the inability of traditional financial institutions to satisfy the increasing wants of their customers. Blockchain technology will ensure that users will own and manage their data, thereby eliminating middlemen.

4) Increase in Volume: The volume and number of transactions that can be simultaneously processed by blockchains will be exponentially larger than that processed by traditional financial institutions. Blockchain platforms can process high-volume transactions without lagging, which is undoubtedly a lucrative competitive advantage. The sky is the limit since blockchains are not dependent on intermediaries for the efficient processing of transactions.

5) Swift Transactions: Undoubtedly, it will take mere seconds over blockchain platforms to complete financial transactions that earlier took several days. The primary reason behind this is the lack of involvement of third parties for verification since they are stored publicly.

6) Increased transparency & Robust Security: Blockchain has better transparency than traditional financial institutions do. For example, if the U.S. Securities Exchange Commission wants to trace the origins of insider trading, it can easily do that using blockchain. If we compare this with banks, tracking payment origins through them is challenging, but the blockchain is completely possible and can be done in just a few seconds.

The uses of blockchain in banking are as follows:

1) Accounting and Audit: Blockchain's skill to record immutable records, poses a profound effect on the methods of accounting, bookkeeping, and audit employed across the banking sector. This futuristic technology can potentially reduce paperwork, streamline traditional bookkeeping, and ensure the availability of records for audit. Undoubtedly, regulatory compliance will see significant improvement.

2) Borrowing and Lending: Decentralised finance (DeFi), one of the most influential blockchain and banking trends in recent years, intends to reform numerous features of traditional finance, including borrowing and lending. DeFi's objective is to confront and challenge the banking sector head-on by enabling accessible financial services to retail customers. Blockchain technology has the potential to spur the lending and borrowing activities facilitated by banks. Blockchain technology is marked by its robust verification abilities, which can potentially reduce the risk of bad loans. Scrutinizing the borrower's criminal history through blockchain will enhance the bank's know-your-customer (KYC) and anti-money laundering (AML) abilities.

3) Syndicated Loans: Typically, huge loans to corporate clients are provided by a group of banks. Owing to it being an elaborate and intricate process as well as requiring coordination between the lenders can take up to 19 days. Compliance with KYC and AML regulatory requirements poses a pressing problem. Currently, the traditional method requires KYC and AML compliance independently, by all banks involved in the processing of syndicated loans. Astonishingly, blockchain technology permits a bank that has already completed the compliance procedures to securely communicate that information with other participants, thereby simplifying the process substantially. In 2016, Credit Suisse, Ipreo, Symbiont, and R3 formed a consortium to work on enabling syndicated loans on blockchain systems. Using solutions from Synaps Loans, the consortium completed a proof of concept in 2017.

4) Trade Finance: Trade finance relies primarily on paperwork, which is distributed by fax or mail across the world. Modernization in trade finance has been long overdue. Blockchain can facilitate rapid digitalization across space.

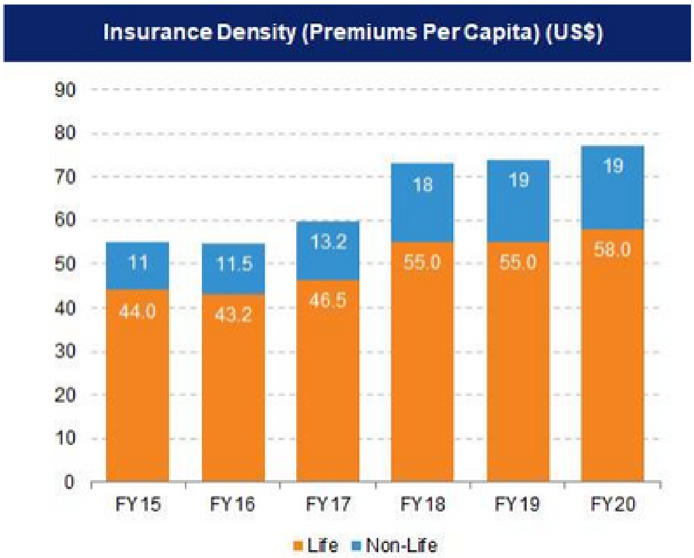
5) Trading: DeFi has already demonstrated that there is a growing interest in decentralized marketplaces and exchanges. While at the moment those are happening outside the banking industry lenders could be tempted to embrace the concept. As discussed earlier, blockchain in banking could completely transform clearing and settlement operations, which are a key component of a trading business

6) Fundraising: Conventionally, banks have managed most forms of fundraising like the initial public offer. The emergence of initial coin offerings (ICOs) revitalized the industry by allowing startups to issue and sell crypto tokens to investors. Although controversial, the ICO trend initiated a new way of thinking and eventually brought about the development of security token offerings, a more mature version of the original concept.

Insurance Industry Overview

Market Size and Structure

India is currently the 10th largest insurance market in the world and is set to surpass Germany, Canada, Italy, and South Korea to become the 6th largest insurance market in the world by 2032. With the background of the regulatory push for penetration along with regulatory reforms, rapid growth of both retail as well as corporate businesses is expected. The Indian Economy is expected to grow at the rate of 7%, thereby proving this dream to be realistic. The insurance industry in India has undergone an impressive growth rate over the last two decades, which can be attributed to the increased private sector participation as well as the substantial improvements in distribution capabilities and operational efficiencies.



Swiss Re Group is one of the world's leading providers of reinsurance and insurance. As per Swiss Re, "In terms of total premium volumes, it [Indian Insurance market] was the 10th largest globally in 2021, with an estimated market share of 1.9% and the second largest of all emerging markets." Swiss Re has forecasted that over the next decade, premiums will grow by an average of 9% per annum (in real terms), which is stronger than the 7.5% annual average of 2015-2021. Their projection is based on expectations of strong economic growth, rising levels of disposable income, India's youth population, increased risk awareness and digital penetration as well as skillful and judicious regulatory developments.

The largest private sector health insurer in the country, Star Health and Allied Insurance was listed in December 2021, thereby making it the 5th private sector insurer to move for an Initial Public Offer after SBI Life Insurance, HDFC Life, ICICI Lombard and ICICI Prudential. Undoubtedly, public listings enhance public disclosure, corporate governance, and valuation. The highly competitive insurance sector is already witnessing M&A (Mergers & Acquisitions) activities. The digitization of the Indian Insurance market must be accredited to the emergence of a plethora of digital platforms, offering a wide array of services, including insurance purchases. There are currently more than 140 InsurTech startups operating in India. Funding in Indian Insurtech rose from just USD 10 million in 2016 to USD 800 million in 2021, accounting for almost 6.0% of the total global funding in the sector over the same period. Policybazaar, Digit, and Acko from India are among a few InsurTech companies globally that have crossed the USD 1 billion valuation mark by 2021.

The first quarter of FY24 saw non-life players' premium income increase by 17.9% year-over-year to Rs. 64,262.8 crore (US$ 7.72 billion) due to strong demand for health and motor policies. The premium in the month of March 2023 for the private life insurance industry grew at a healthy pace of 35% on a year- on year basis and 20% for FY23. Life insurance firms collected 18% more premiums in FY23 compared to the year before. Life insurers collected Rs. 3.71 lakh crore (US$ 44.85 billion) as the first-year premium in FY23 as against Rs. 3.14 lakh crore (US$ 37.96 billion) in FY22, according to the latest IRDAI data.

Mr. Debashish Panda, Chairman, IRDAI informed that the insurance industry of India has become a Rs. 59 crore (US$ 7.1 million) industry as of February 2023. Driven by a pick-up in health and motor insurance segments, the non-life insurance industry has grown by 16.4% in FY23 compared to 11.1% in the previous year. Among the private players, SBI Life, HDFC Life, and ICICI Prudential Life led the industry in premium collection. SBI Life collected Rs. 29,587 crore (US$ 3.57 billion) premium in FY23 while HDFC Life and ICICI Prudential Life received Rs. 28,876 crore (US$ 3.48 billion) and Rs. 16,921 crore (US$ 2.04 billion), respectively.

As expected, the state-run insurance behemoth LIC alone contributed over 60% to the total new business premium collection. The insurer received close to Rs. 2.31 lakh crore (US$ 27.93 billion) as a premium in FY23 compared to Rs. 1.99 lakh crore (US$ 24.06 billion) in FY22. Among the private players, SBI Life, HDFC Life, and ICICI Prudential Life led the industry in premium collection. SBI Life collected Rs. 29,600 crore (US$ 3.58 billion) premium in FY 2023 while HDFC Life and ICICI Prudential Life received Rs. 28,900 crore (US$ 3.49 billion) and Rs. 17,000 crore (US$ 2.05 billion), respectively.

According to the latest data released by the insurance regulator – the Insurance Regulatory and Development Authority of India - LIC improved its market share by 67.72% as of October, a gain of 447 basis points (bps). At the end of 2021-22, private players had a 36.75% share of the life insurance market, while LIC had 63.25%. With nearly 62.58% of the new business market share in FY23, Life Insurance Corporation of India, the only public sector life insurer in the country, continued to be the market leader.

In FY23, non-life insurers (comprising general insurers, standalone health insurers, and specialized insurers) recorded a 16.4% growth in gross direct premiums. In India, gross premiums written off by non life insurers reached US$ 10.95 billion in FY24* and US$ 31 billion in FY23. The life insurance industry was expected to increase at a CAGR of 5.3% between 2019 and 2023. India's insurance penetration was pegged at 4.2% in FY21, with life insurance penetration at 3.2% and non-life insurance penetration at 1.0%. In terms of insurance density, India's overall density stood at US$ 78 in FY21. Premiums from India's life insurance industry are expected to reach Rs. 24 lakh crore (US$ 317.98 billion) by FY31.

Between April 2021 and March 2022, gross premiums written off by non-life insurers reached Rs. 220,772.07 crore (US$ 28.14 billion), an increase of 11.1% over the same period in FY21. In May 2022, the total premium earned by the non-life insurance segment stood at Rs. 36,680.73 crore (US$ 4.61 billion), a 24.15% increase compared to the previous year's period. The market share of private sector companies in the general and health insurance market increased from 48.03% in FY20 to 49.31% in FY21 to 62.5% in FY23. Six standalone private sector health insurance companies registered a jump of

66.6% in their gross premium at Rs 1,406.64 crore (US$ 191.84 million) in May 2021, as against Rs. 844.13 crore (US$ 115.12 million) earlier. According to S&P Global Market Intelligence data, India is the second-largest insurance technology market in Asia-Pacific, accounting for 35% of the US$ 3.66 billion insurtech-focused venture investments made in the country.

Emerging Trends in Insurance

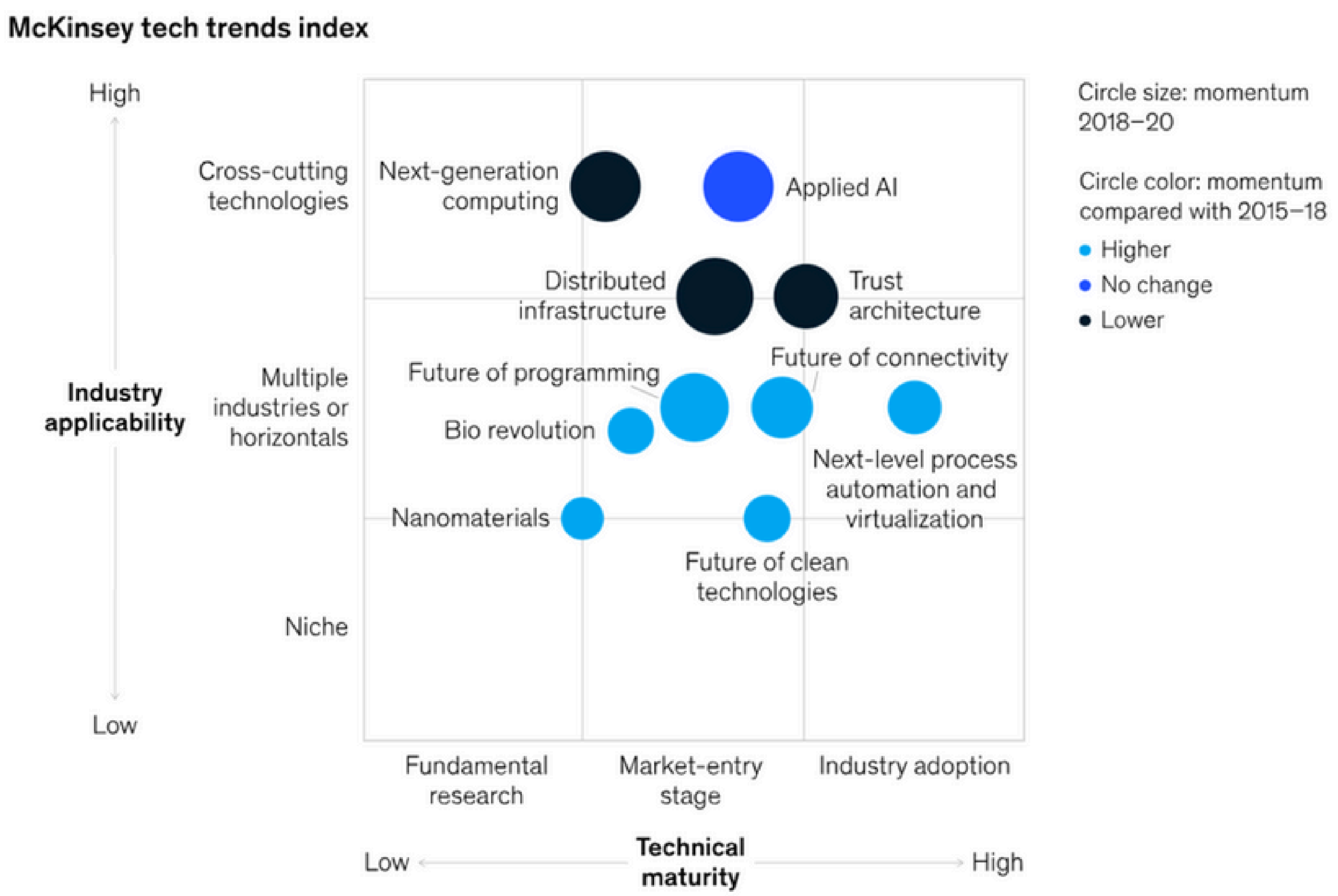
Insurtech Advancements

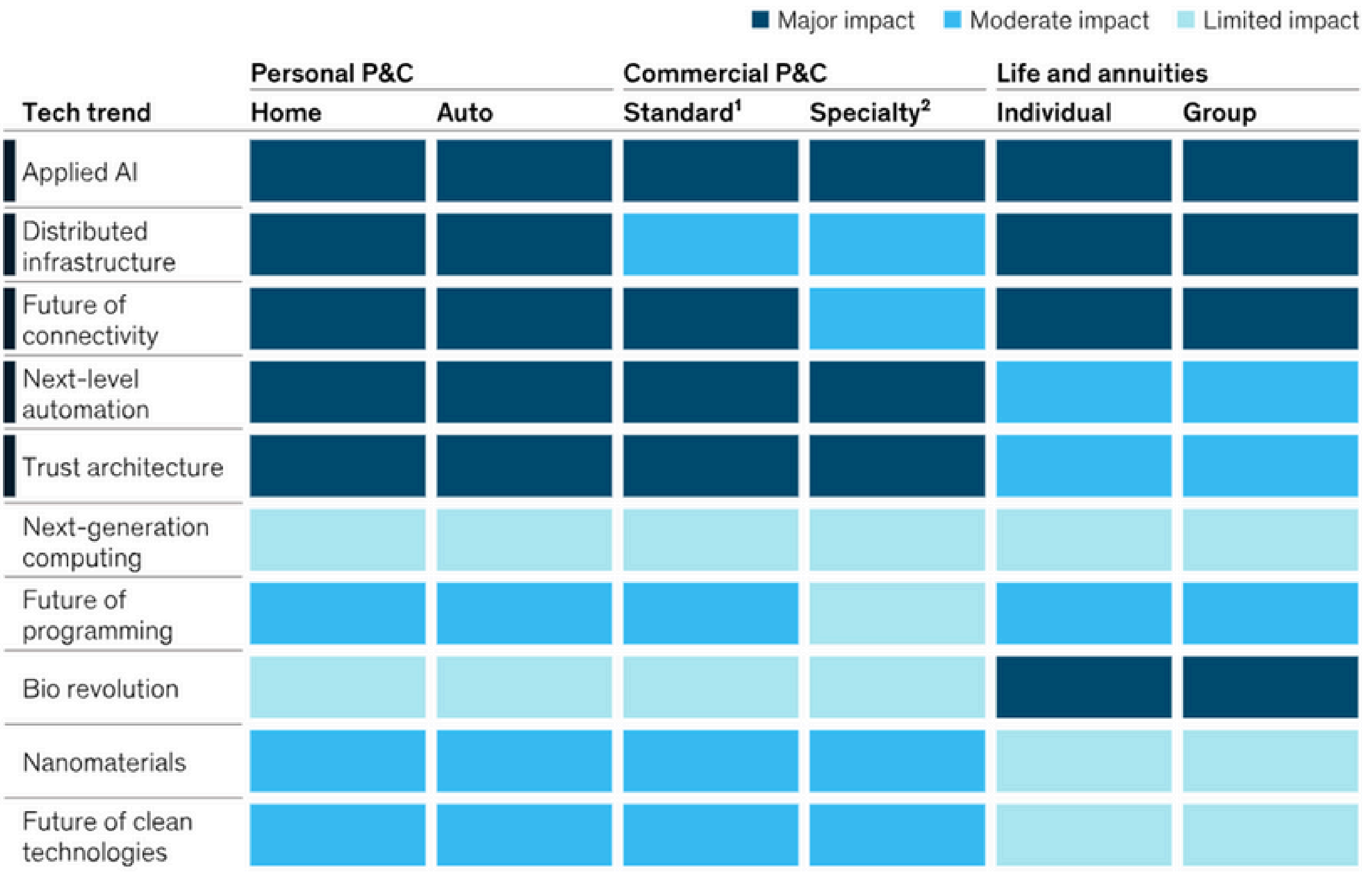
A handful of accelerating technology trends are poised to transform and evolve the very nature of insurance. The prolific innovation of self-driving cars has ensured that, in auto insurance, the risk will transfer from the drivers to artificial intelligence and the software behind self-driving cars. Processing of claims after the occurrence of natural disasters will be automated, swift, and scalable.

Insurers will have unprecedented visibility into the risk around facilities, thereby ensuring greater accuracy, facilitated by the well-founded and reliable work of satellites, drones, and real-time datasets. The emergence of core technology trends in recent years has reshaped products and services.

1) Applied AI

While carriers are currently experimenting with AI, very few have managed to scale their capabilities across the enterprises. When the extensive use of AI becomes widespread and algorithm production becomes commoditized, it will enable carriers to fundamentally restructure their core processes and become more predictive in nature. Undoubtedly, core processes will become AI-enabled thereby disrupting distribution, underwriting, claims, and services. This will eventually create a "human in the loop" model that equips increases in productivity and higher quality touch points with customers. Besides reengineering core processes, leading carriers can use the advent of AI to provide more data and analytics-oriented products and services.





[1] Main lines include other liability (claims), marine, financial lines, and specialized property.
[2] Main lines include workers' compensation, general liability, commercial auto, commercial multiple peril, and property.
Source: McKinsey analysis

2) Blockchain

Blockchain is fundamentally based on distributed computing, thereby resulting in a decentralized network. This ensures the avoidance of centralized control and free participation. The enhanced cyber security is an undeniable advantage of blockchain technology in terms of financial transactions. This is facilitated by its decentralised nature as well as its transparency of transactions which are recorded in the nodes of the blockchain without fail. The transaction costs can be potentially reduced by automating claims management, which is possible if a blockchain can use external, third-party data sources. Fraud detection will advance by leaps and bounds if blockchains can access data on purchase records, police reports, ownerships, etc. By nature, blockchain does not permit alterations to transactions after the fact. This implies that while for standard policies and procedures, blockchain technology will be a beneficial and productive tool, it may have complications and obstacles in the applicability of complex policies. The enforceability of blockchains can jeopardised because their legality is still unclear.

3) Robo- advice and AI

The widespread emergence of price comparisons and distribution websites in recent years has resulted in much effort being made to develop websites that provide financial guidance, taking into consideration the policyholder's income and needs all the while providing greater automation through algorithms for products having investment and/or saving components. This results in the costs of such services being lowered and directly contributes to lowering the insurance protection gap(the difference between the amount of insurance that is economically beneficial and the amount of coverage that is purchased) of the lower-income population. According to Accenture, the far-reaching capabilities of robo-advice can be categorized into:

- Understanding the needs of the clients: collecting client information, analyzing needs and preferences, assessing risk tolerance
- Policy proposal: Financial plan development, asset allocation selection
- Policy Implementation: Opening of accounts, transferring of assets
- Monitoring and Adjustment of Policy: Performance Reviews (Annually/ Quarter -ly), market updates and research, dashboards, etc.
- However, in contrast to robo-advice, human interactions foster long-term relations through the forging of mutual trust and understanding between the policyholder and financial agent/advisor/broker. Financial advisors might prove to be superior in terms of persuading the policyholder to perform a specific action.
- On the other hand, robo-advice has the caliber to develop a multi-faceted financial plan addressing goals such as retirement, protection needs, estate planning and long term care/ health coverage. Robo-advice facilitates a sense of privacy which some individuals might prefer due to the sensitive nature of money matters.

Another important factor is that the fee would be lower than that charged by financial advisors. For example, in the investment advisory sector in the US, witnesses financial advisors charging 1% of assets under management as fees, in sharp contrast to the 15 to 35 b.p. of assets under management charged by investment robo advisors (Investment Junkie, 2016)

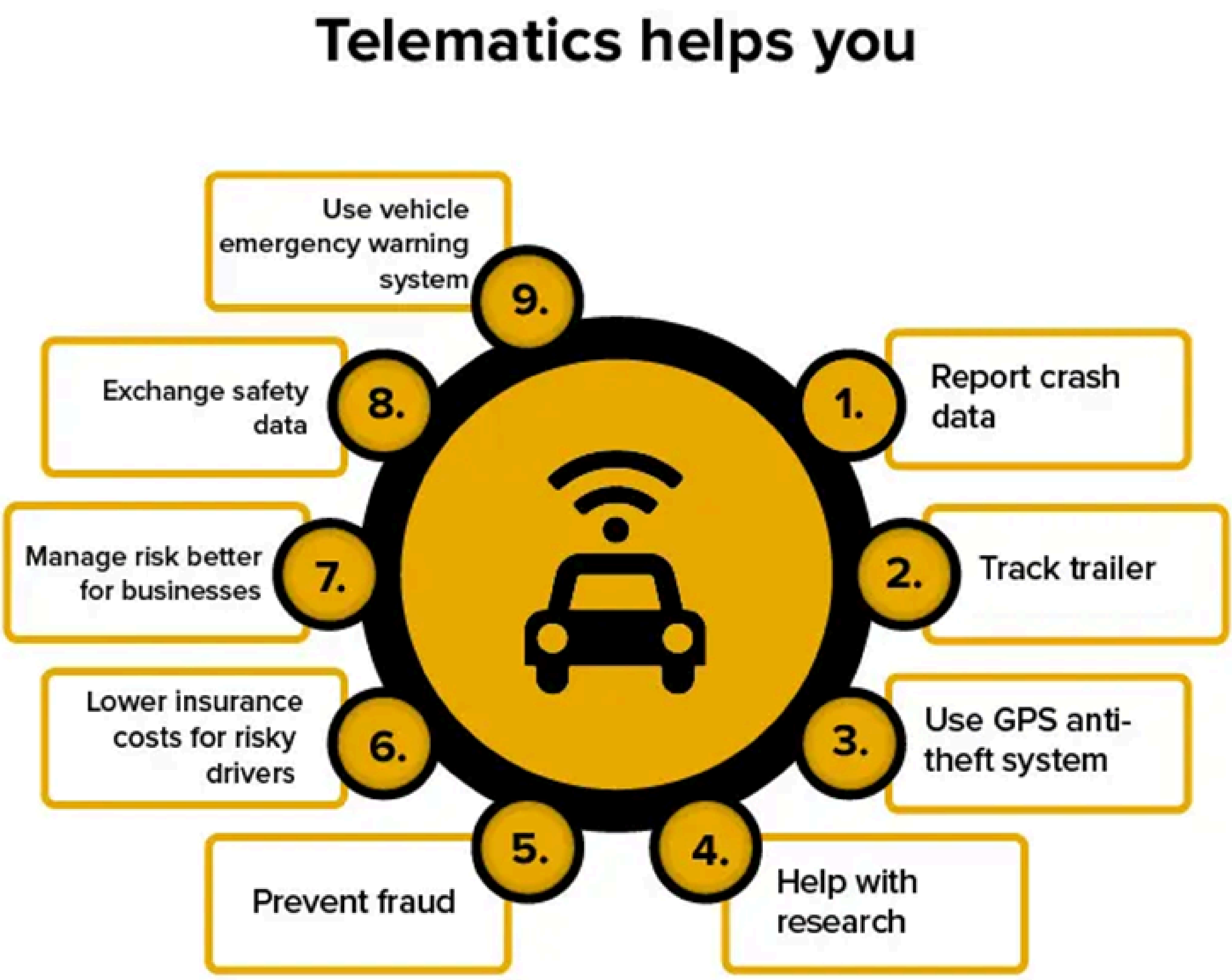
A disheartening fact, however, is the lack of transparency in the underlying algorithm of robo-advice and AI. This facilitates the presence of biases, both unintentionally and intentionally, resulting in inappropriate financial advice.

Usage-based insurance models

Telematics Technology in the Automobile Insurance Industry

One of the insurance industry's indispensable assets is data. Auto industry is poised to become a huge data industry with telematics technology in the forefront and potentially changing the landscape of business insurance as we know it. Per policyholder, depending on the frequency and length of the trips taken, data sets can represent about 5 MB to 15MB of data annually. This implies that an insurer can potentially collect one terabyte of data per year if he has 100,000 insured vehicles. The data hence recorded can be utilised to develop more accurate pricing, enhance the granularity of risk management techniques and reduce losses by enabling better claims assessment.

The driving habits of car owners, including but not limited to daily mileage, the typical driving speed, as well as the degree of safety with which the car is operated are characteristics documented by the telematics devices. Subsequently, this data is analysed to determine the vehicle-specific motor insurance prices based on the risk associated with each vehicle.



As per Allied Market Research, Telematics insurance market is growing by leaps and bounds to reach $13.78 billion in 2030 at a CAGR of 19.5%. Thanks to the advent of modern technology, several possibilities are available such as:

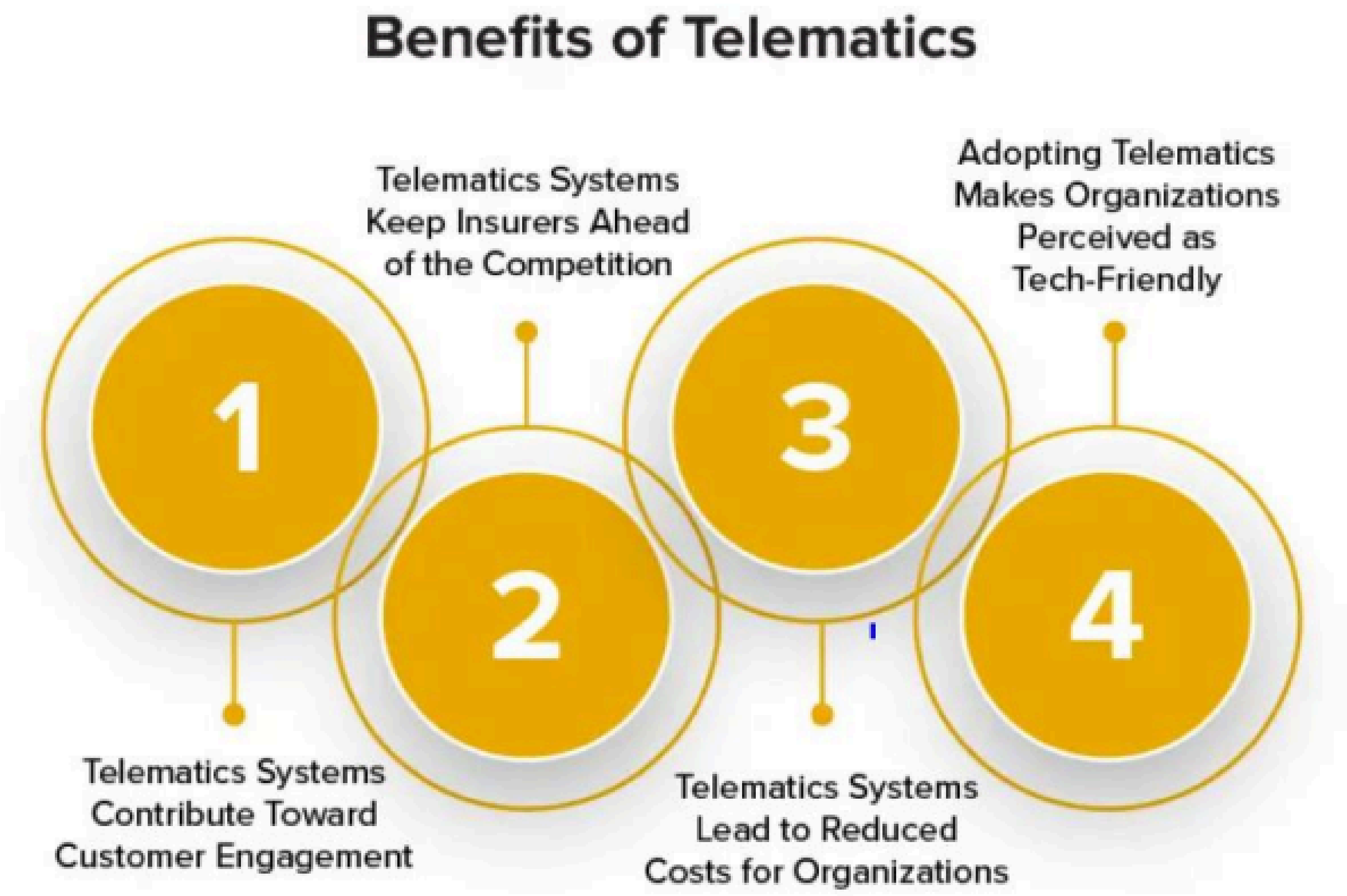
1. **Mobile Application:** Tracking the driver's movement is made plausible by mobile applications after users agree to certain privacy restrictions

2. **Connect-in Device**

3. **GPS Devices :** Essential driving data can be collected through advanced GPS units following a user's movements

4. **Onboard Sensors :** Vehicles can be equipped with onboard sensors that can store and transmit vehicle-related information in real-time or later.

5. **Mileage (Miles) Detection :** A device is implanted into the car with the objective to record and transmit the length of the time the car has been on the road. The insurance premium is decided on the basis of the distance travelled.



1) Significant contribution towards customer engagement : Efficient categorization of customers becomes feasible only when insurers form a comprehensive understanding of their customers. This understanding facilitates customized automobile insurance plans that suit their needs. Additionally, telematics systems frequently result in ongoing client interaction with the carrier via an app or other devices to monitor their usage. Gamification aspects can also be integrated through rewards and point scoring which will deter rash driving. Undoubtedly, customer satisfaction will surge as a result of increased customer interaction, thereby increasing the likelihood of customers readily paying extra.

2) Staying Ahead of the Competition: Telematics enables insurers to stay ahead of the competition by offering competitive prices to their customers, owing to the knowledge of mobile data analytics.

3) Lead to Reduced Cost to the Organization: Telematics enables insurers to identify and distinguish safe as well as reckless drivers. Safe drivers decrease the cost of claims. Notably, data enrichment facilitates the identification of incidents early, thereby notifying services. Additionally, the First Notification of Loss assists in managing and resolving claims within minutes rather than days. Undeniably, usage-based insurance encourages safe drivers, thereby drawing fewer risky clients.

Sustainable and climate-focused insurance products

In recent times, every industry has shown significant interest in sustainability, and even the insurance sector is a part of this rise. This shift is the result of the impact that climate change and other key socio- economic issues will have on the industry in terms of underwriting and profitability. This projected shift is expected to grow multifold in the next few years.

It is essential to first develop an understanding of green products. Green products are products that safeguard the interests of the policyholders in the event of an unforeseen or undesirable event while simultaneously protecting public health and the environment as a whole.

The global trend of transitioning to low-carbon economies has facilitated the need for insurer providers to offer such green products. However, it is to be noted that the wave of sustainability in the sector can only be successful by the timely engagement of green products, also known as green insurance by the industry players.

There are a couple of green insurances that are being written by insurance providers around the globe, and the same have been listed below:

Green Motor Vehicle Insurance:

These are insurance products that are available over motor vehicles to intensify the global objective of reducing greenhouse gas emissions into the environment and thus establishing a strong foundation eco-friendly environment.

Common examples of green motor vehicle insurance are as follows:

1. **Pay As You Drive (PAYD):** It is a usage-based car insurance that allows the insured to pay the amount based on distance driven.
2. **Alternative Fuel Premium Discount:** This insurance product recognizes the surging demand for alternative fuel vehicles, to scale down the consumption of petroleum. This product implies that insurance companies offer discounts for alternative fuel vehicles like hybrid or electric vehicles.
3. **Hybrid Vehicle Premium Discount:** It suggests a reduction in premium to be paid for insurance of hybrid vehicles. In India, The Insurance Regulatory and Development Authority of India (IRDAI) sets these premiums. In the fiscal year 2022-23, it proposed a 15% discount on insurance premiums for EVs and a 7.5% reduction for hybrid motors.
4. **Endorsements that Allow Hybrid Replacement:** Post a total car loss, the insured can opt to replace the conventional vehicle with a comparable hybrid vehicle.

Green Insurance for Homes:
These products encourage the employment of renewable materials and sources of energy in the residential space and advocate for alternative building practices. Distinct from the traditional home insurance policy, it facilitates the goal of low carbon footprint by transitioning from the use of fossil fuels to renewable energies. A few examples of such products are vis-a-vis the following:

1. Eco-friendly Replacement Material Endorsements: After a loss, it provides the insured with the option to replace or rebuild using sustainable materials and practices.
2. Broad Coverage for Alternative Energy Sources: These products are for homeowners who generate their renewable energy and sell the surplus to the local grid. It secures their interest by covering extra expenses of temporarily buying electricity and the resultant loss in income due to power outage.
3. Premium Discounts for Leadership in Energy and Environmental Designs (LEEDs): LEEDs is a system developed by the U.S. Green Building Code and is a recognized environmental standard in the world of construction. Premium discounts are provided to the insured with such recognition.

Green Insurance for Businesses:

Similar to green insurance products for residential space, green insurance for businesses is green insurance for commercial property. These are meant to incentivize businesses to adopt renewable materials and energy sources in their place of business. A few examples are the following:

- Cover Installing Green Building Systems and Materials: It covers the expenses of replacing traditional systems and materials with ones that promote an eco-friendly environment, after a loss.

Allowed Green Certified Building: In the event of a total loss, it also covers the expenses for engineering inspections of heating, ventilation, building recertification fees, etc.

Benefits of offering green products:

The insurer providers enjoy certain benefits as a result of providing such green products, which provide them a competitive edge. The same are elucidated in the following:

1. Expansion into new business and market: Provision of such products, allows the players to extend their reach and appeal to sustainability-oriented customers.
2. Market share growth: This expansion into new markets will further facilitate the penetration into new business areas, thus indicating an increase in market share. For instance, the introduction of EVs also requires an insurance policy distinct from the traditional policy for vehicles, which will commensurately increase the stake of green insurance providers who provide such products.
3. Adverse Selection: The probability of environmentally conscious policyholders preserving their assets and preventing the occurrence of insurable events is more than non-environmentally conscious policyholders and thus they represent a better risk for insurability.

Banking Regulations With Respect to India

By the provisions of the Banking Regulation Act, of 1949, the Reserve Bank of India (RBI) oversees the banking industry in India. Lending to a single borrower is limited to 15% of the bank's capital funds. This cap could be raised to 20% if infrastructure projects are involved. 30% of the bank's capital reserves may be lent to group borrowers, with an option to extend it to 40% for infrastructure projects. An extension of the lending limits by 5% necessitates the approval of the bank's board of directors. Fund-based and non-fund-based exposure are both included in lending.

There are three classifications for non-performing assets (NPA): substandard, questionable, and loss. In the event of a term loan, an asset is considered non-performing if interest or principal payments are missing for more than ninety days. Assets having a less than 12-month NPA status are considered substandard. They are categorized as doubtful assets after that point. An asset that is written off the books and for which the bank or auditor does not expect repayment or recovery is called a loss asset. Substandard assets require a provision of 10% of the outstanding loan amount for secured loans and 20% of the outstanding loan amount for unsecured loans.

Doubtful assets require a provision for the secured part of the loan of:

- 20% of the outstanding loan for NPAs in existence less than one year
- 30% for NPAs in existence between one and three years
- 100% for NPA with a duration of more than three years

A provision of 100% is required for the unsecured portion of such loans. Standard assets also require provisioning. Provisioning for agriculture and small and medium enterprises is 0.25% and for commercial real estate, it is 1% (0.75% for housing), while it is 0.4% for the remaining sectors. Provisioning for standard assets cannot be deducted from gross NPAs to arrive at net NPAs. Loans extended to companies that have unhedged foreign exchange exposure require additional provisioning over and above the standard provisioning. The priority sector broadly consists of micro- and small enterprises and initiatives related to agriculture, education, housing, and lending to low-earning or less privileged groups (classified as "weaker sections"). The lending target for domestic commercial banks and foreign banks with greater than 20 branches is 40% of adjusted net bank credit (ANBC). ANBC is whichever is higher than:

1. Outstanding bank credit minus certain bills and non-SLR bonds
2. Or the credit equivalent amount of off-balance-sheet exposure (the sum of current credit exposure plus potential future credit exposure that is calculated using a credit conversion factor)

The lending target for foreign banks with less than 20 branches is 40% of ANBC. The new guidelines state that:

- A successful track record of at least 10 years is mandatory for groups applying for a license. A non- operative financial holding company (NOFHC) completely owned by promoters should operate the bank.

- Five billion rupees must be the minimum paid-up voting equity capital, with the NOFHC holding at least 40% of it and gradually bringing it down to 15% over 12 years. Within three years of the start of the bank's operations, it is necessary to list the shares.

- Foreign shareholding is restricted to 49% for the first five years of its operation, post which RBI approval would be required to increase the stake to a maximum of 74%. The board of the bank should have a majority of independent directors and it must comply with the priority sector lending targets discussed earlier.

- The NOFHC and the bank are prohibited from holding any securities issued by the promoter group and the bank is prohibited from holding any financial securities held by the NOFHC.

- The new regulations also stipulate that 25% of the branches should be opened in previously unbanked rural areas

Insurance Regulatory Authorities

The insurance sector is regulated by a series of authorities, which are vis-a-vis the following:

Insurance Regulatory and Development Authority:
The IRD has established the Insurance Regulatory and Development Authority (IRDA), a statutory body to regulate and promote the insurance industry while simultaneously safeguarding the interests of insurance policyholders. IRDA has been entrusted with the responsibility to ensure the orderly growth of the insurance and reinsurance business in India. Additionally, it is conferred with powers allowing it to prescribe regulations on the investment of funds by insurance companies, adjudication of disputes between insurance holders and intermediaries, overseeing tariff advisory committees, etc. The central government appoints persons of ability who know the fields of life insurance, general insurance, actuarial science, finance, economics, law, etc as members of IRDA. The IRDA committee is composed of a chairperson, utmost 5 full-time members, and utmost 4 part-time members.

Tariff Advisory Committee
It is the body corporate that governs the rates, advantages, terms, and conditions offered by the insurer in the general insurance business. It has the power to require an insurer to provide information and statements necessary for the committee to carry out its function. If any insurer fails to comply, then they shall be deemed to contravene the provisions of the Insurance Act. Finally, every insurer is required to pay annual fees to the advisory committee, the amount of which differs for reinsurance businesses and other insurance businesses.

Insurance Association of India, Councils and Committees
All insurers and provident societies incorporated in India are members of the Insurance Association, while all insurers and provident societies domiciled elsewhere are associate members of the Insurance Association. There are two councils of the Insurance Association which are the Life Insurance Council and General Insurance Council. The Life Insurance Council, functioning through its Executive Committee, acts as a gatekeeper for aspiring insurance agents by administering qualification examinations. Additionally, they serve as a financial watchdog, establishing and enforcing expense limits for life insurance companies. Similarly, the General Insurance Council, spearheaded by its Executive Committee, fulfills a similar role for non-life insurance domains.

Ombudsmen
They help resolve complaints you have against your insurance company in a fast & fair manner.

Before calling in the Ombudsmen:
- You must first complain to your insurance company and wait for their response (or lack thereof).
- Your complaint must be about a claim denial, premium dispute, policy interpretation, delayed settlement, or missing documents.
- You have one year from the company's rejection to file a complaint.

What the Ombudsman can do:
Listen to your concerns and act as a neutral mediator. Recommend solutions if both parties agree. Issue awards of up to ₹2 million to compensate you for your losses. Important points: This is not a replacement for court or arbitration, so choose wisely. Only personal (not business) policies with claims under ₹2 million are eligible.

Challenges and Opportunities

Common Challenges

Cybersecurity threats

As the transition to a digital economy accelerates, the banking industry is grappling with escalating concerns over cybersecurity. The safeguarding of data through robust protocols and systems is deemed critical for the seamless progress of the digital revolution, especially concerning the protection of Personally Identifiable Information (PII) against both inadvertent breaches and meticulously planned cyberattacks.

The stakes are notably high in the banking and financial sectors, given the substantial financial sums at risk and the potential for severe economic disruptions in the event of compromised banks and financial systems. The burgeoning digitalization of financial transactions is paralleled by a surging demand for cybersecurity specialists.

Within the banking industry, cybersecurity encompasses an extensive array of technologies, protocols, and strategies aimed at thwarting attacks, preventing damage, and combating malware, viruses, hacking attempts, and unauthorized access to networks, devices, programs, and data. The paramount objective is to protect users' assets, particularly as society increasingly relies on digital payment methods like debit and credit cards.

The current state of cybersecurity in banks reflects a challenging landscape. Indian banks reported 248 successful data breaches by hackers and criminals between June 2018 and March 2022. The government disclosed a staggering 11,60,000 cyberattacks in 2022 alone—a threefold increase from 2019—in a notification to Parliament on August 2, 2022. Notable cyberattacks, such as the 2016 attempt against the Union Bank of India involving a nearly $171 million fraudulent transaction, underscore the vulnerability of online banking. Incidents like these necessitate banks to fortify their IT risk governance framework, with the Chief Information Security Officer and the Board playing proactive roles in ensuring compliance with necessary standards.

The significance of cybersecurity in the banking sector is underscored by several critical factors. With the increasing shift towards cashless transactions, robust cybersecurity measures are imperative to safeguard user data and privacy. Establishing and maintaining credibility and trust is foundational in banking, and insufficient cybersecurity measures can lead to data breaches, eroding customer confidence and diverting business to competitors.

Data breaches in the banking industry result in substantial delays and costs. Recovering from such incidents involves actions like checking bank statements, canceling credit cards, and vigilant monitoring for potential issues. Mishandling confidential data can have long-term negative effects, leaving individuals susceptible to abuse even after resolving immediate issues like credit card cancellation and identity theft.

Banks carry an elevated responsibility to guard against cybercrime threats as custodians of confidential personal data.

Inadequate protection could lead to severe consequences if this information is compromised. The banking sector faces well-known cybersecurity threats, including ransomware, phishing attacks, Trojan horses, and spoofing. Phishing attacks, a common threat, can grant unauthorized access to a bank's network, resulting in significant financial and reputational losses, including Advanced Persistent Threats (APTs). Ransomware encrypts crucial data, denying access until a ransom is paid, while Trojan threats pose as trustworthy software to access private information processed by online banking systems.

To address these challenges, the banking sector employs various cybersecurity techniques and tools. Network security surveillance, often in conjunction with firewalls, antivirus software, and intrusion detection systems (IDS), involves continuous scanning for signs of suspicious activity. Software security incorporates elements like code signing, application whitelisting, and policy synchronization to safeguard critical applications.

Risk management is a fundamental aspect of cybersecurity in banking, encompassing methods such as data integrity, risk analysis, security awareness training, and risk identification and mitigation. Employing wide-area network connections to prevent attacks on crucial systems, maintaining continuous monitoring, and adhering to industry-set safety standards are essential components of protecting against cybersecurity threats. These measures are crucial to ensuring the banking sector's resilience in the face of evolving risks in the digital landscape.

Equivalently, Insurance companies find themselves frequent targets of cyberattacks, given the vast amount of sensitive data they store, including valuable Personally Identifiable Information (PII). Cybercriminals are enticed by the potential for substantial profits through identity theft, financial fraud, and the trading of protected health information (PHI), particularly in the healthcare insurance sector. With their extensive databases containing information on assets, liabilities, and financial transactions, insurance companies become attractive targets for those seeking insider information for financial gain.

The inherent interconnectedness of the insurance ecosystem, characterized by partnerships with numerous third-party vendors, amplifies the risk of cyber threats. This intricate network creates opportunities for attackers to exploit vulnerabilities in the supply chain, using less secure partners as entry points to breach the primary network of insurance companies. The industry's embrace of digital transformation and technologies like IoT and cloud computing expands the attack surface, providing cybercriminals with additional avenues for exploitation.

The insurance sector's high transaction values and substantial financial transfers further enhance its appeal to hackers. Despite managing vast volumes of sensitive data and acknowledging cybercrime as a significant threat, studies indicate that cybersecurity in the insurance industry is in a precarious state.

According to the Cyber Insurance Risk in 2022 report, a staggering 82% of insurance companies are susceptible to phishing attacks, while almost 20% of the top 99 insurance carriers exhibit a high susceptibility to ransomware. The findings from the Insurance Banana Skins 2023 report reveal a concerning trend. When asked to rate their preparedness for cyberattacks on a scale of 1 (poorly) to 5 (well), respondents provided an average response of 3.20. This signals a slight decline from 3.22 in 2021, indicating a growing lack of confidence in the industry's ability to navigate the evolving cyber threat landscape.

The post-ChatGPT Era introduces a new wave of threats, with large language models enabling the creation of sophisticated phishing emails, code analysis for vulnerability identification, and even the generation of malicious code. This shift underscores the imperative for heightened awareness, continuous cybersecurity measures, and innovative responses to counter emerging cyber threats.

In conclusion, the banking and insurance sectors find themselves at pivotal junctures in their ongoing battles against cyberattacks. The myriad challenges outlined in reports such as Insurance Banana Skins 2023 emphasize that cybersecurity is not merely a technical issue but a complex challenge demanding an integrated solution. Coordinated efforts are essential to fortify cybersecurity, embrace advanced technologies, and instill a resilient culture as these industries confront these challenges. Adopting this collective approach is crucial to safeguarding the stability and trust that the global insurance and banking sectors offer.

Economic downturns

The banking sector in India has grappled with significant repercussions stemming from the COVID-19 pandemic and the resultant economic downturn. In response to these challenges, the Reserve Bank of India (RBI) has implemented a range of measures, including regulatory forbearance, liquidity support, and interest rate reductions, aimed at bolstering banks during these demanding times. However, despite these interventions, Indian banks are still contending with substantial challenges, particularly in terms of asset quality and profitability.

Surviving and thriving amid a recession demands a focused approach by Indian banks, emphasizing efficiency, diversification, and robust risk management. Collaborations and partnerships with other banks and financial institutions are identified as strategies to augment resources and assist in mitigating risks.

Throughout an economic downturn, banks confront key challenges that can significantly impact their operations and financial stability. A primary challenge is the surge in loan defaults and the accumulation of Non-Performing Assets (NPAs). Economic contractions make it more challenging for borrowers to fulfill their loan obligations, increasing defaults, with banks heavily exposed to high-risk industries being particularly susceptible.

Liquidity challenges and funding constraints represent another critical issue. Rising default rates can trigger liquidity problems for banks, making it difficult to meet funding requirements and potentially leading to a credit crunch that restricts the availability of credit to businesses and consumers.

The economic downturn also has implications for the profitability and capital adequacy of banks. Lower profitability, combined with challenges in securing funding, can hinder a bank's ability to maintain necessary capital levels, limiting its capacity to absorb losses and continue regular operations.

Regulatory responses and support measures play a crucial role during economic downturns. Regulators may introduce new regulations to stabilize the banking sector, ensuring its resilience in challenging economic conditions. Additionally, governments may enact support measures, such as loan guarantees or liquidity support, to assist banks in navigating the downturn and continue providing essential financial services.

India's resilience in the face of these challenges is rooted in several key factors. The country's diverse economy and reduced dependency on exports contribute to its economic resilience. A vast domestic market provides a secure foundation for businesses, allowing for expansion even during economic downturns. The demographic advantage of a youthful and expanding population offers significant potential for development and innovation. Infrastructure development and technology investment position India to respond swiftly to evolving global market conditions. Finally, a robust regulatory structure and a stable political atmosphere create a favorable business environment, attracting foreign investment and contributing to the country's economic resilience.

In like manner, the Indian insurance industry, in recent times, has faced various challenges primarily associated with regulatory changes and the economic downturn in the country. The impact has been particularly pronounced in the case of popular Unit Linked Insurance Products (ULIPs). However, signs of recovery are emerging for the sector, driven by improved market sentiment, economic growth, and regulatory measures aimed at reducing costs.

Despite these challenges, positive signs are visible for the Indian insurance sector. The past year has seen an improvement in market sentiment, aligned with the overall economic recovery in the country. Economic growth has positively influenced consumer confidence, potentially leading to increased demand for insurance products. Additionally, regulatory measures aimed at reducing costs for insurers may contribute to a more favorable operating environment, enabling companies to navigate challenges more effectively.

As the Indian insurance industry adapts to the aftermath of an economic downturn, the sector is likely to witness strategic adaptations and innovations. Insurers may explore opportunities for product diversification, customer-centric offerings, and enhanced digital capabilities to meet evolving consumer needs. The interplay between regulatory frameworks, economic conditions, and consumer behaviors will continue to shape the trajectory of the insurance industry in India, making adaptability and resilience key attributes for sustained growth in the post-economic downturn landscape.

In summary, while economic downturns present significant challenges for the banking and insurance sector, India's resilience is supported by its diverse economy, large domestic market, youthful population, infrastructure development, and stable regulatory and political environment. These factors collectively contribute to India's ability to navigate and withstand the complexities of economic contractions.

Opportunities

Digital Transformation

In the dynamic realms of banking and insurance, distinct trends are gaining momentum, each driven by the unique nature of these sectors. A closer inspection reveals that technological evolution is shaping their trajectories individually, responding to diverse customer bases and technological requirements.

The banking industry is undergoing significant transformations driven by the relentless march of digital technologies. One crucial aspect is the shift towards providing a holistic digital experience. Customers, especially from the Gen-Z and millennial generations, increasingly prefer internet banking for its convenience in making purchases and managing services without physical visits. The evolution of smartphone applications further simplifies business transactions across various domains. However, this digital transformation brings challenges, particularly in adapting technological systems to meet customer expectations and minimise information overload.

A personalised technological experience is becoming paramount as banks have moved the majority of their services online in the past two decades. Customers now seek relevant information tailored to their needs rather than being inundated with phone calls and emails for every product. Striking a balance between staying current with customers' lifestyles and understanding their expectations puts strain on existing technological systems, urging banks to invest continuously in innovation and technology partners.

The transition to complete digitalization in banking underscores the critical importance of data security. With sensitive financial information being processed online, adopting the highest cybersecurity standards is imperative to safeguard customer and regulatory interests. Real-time regulatory controls have gained prominence, necessitating continuous monitoring and reporting to address issues like online fraud and security breaches. Real-time dashboards and transaction reports are becoming mandatory to maintain customer confidence.

The pressure for real-time transactions is reshaping the traditional banking landscape. Transactions that once took days are now expected to be completed within hours or minutes. Fintech companies claim to accelerate the process, highlighting the need for banks to invest continually in technological innovation to ensure quick, accurate, and secure transactions. Managing every shift and promoting innovation poses a challenge for banks, making technology partners essential in navigating the evolving digital banking landscape.

On the technological progress front, successful banking products in this rapidly changing environment hinge on creating processes that are smooth, scalable, and flexible. Cloud infrastructure platforms play a crucial role, and the selection of providers is pivotal for a seamless digital transformation. Financial institutions prioritising products that can seamlessly move across various cloud platforms position themselves as leaders, ensuring a competitive edge in an increasingly digitized financial ecosystem.

Security implementation is another critical aspect of technological progress in banking. With the growing threats in cyberspace, financial institutions must establish strategic partnerships with cybersecurity-focused service providers. This collaboration enables the implementation of cutting-edge security measures to protect consumer data and counter cyberattacks. Strict security protocols build trust and reduce the risk of unauthorised access and data breaches in digital transactions.

Data analytics for reporting services have become indispensable tools in the financial sector, providing real-time insights to exceed client expectations and comply with regulations. Advanced analytics allows financial institutions to maintain regulatory compliance and gain thorough insights into market trends, client behavior, and potential risks. This real-time analytical capacity empowers organizations to act quickly and with agility in the ever-changing financial environment.

Automation emerges as a major force driving the banking sector into a new era, demanding a careful and methodical integration of front-, mid-, and back-office IT systems. A systematic approach and collaboration with knowledgeable technology partners become essential to overcome automation challenges, encourage creativity, and maximize operational effectiveness. Automation is a key factor in achieving a seamless and effective adoption, ensuring long-term success in the dynamic banking industry.

Shifting the focus to the insurance industry, key paradigms are evolving in response to changing customer expectations. A customer-centric approach becomes crucial, recognizing the higher costs and challenges associated with acquiring new consumers compared to banks. Insurance companies need to leverage data and technology to create tailored solutions, developing a brand identity based on goods that cater to individual customer needs. This shift in spending priorities from marketing to product development aligns with the demand for customized products.

Quicker claims settlement emerges as a customer expectation, mirroring the trends seen in banking. Customers anticipate a digital claims processing experience devoid of paperwork, and insurance companies must adapt to provide seamless, real-time settlement processes. Online insurance product and service purchases gain popularity, especially with travel restrictions, necessitating highly efficient web platforms that align with various channel partners.

In the realm of IT and software in the insurance industry, extensive data utilization is critical for managing and extracting meaningful insights from vast datasets. Building internal IT teams with expertise in data-driven approaches is essential, positioning insurance companies as leaders in managing diverse use cases. Integration with channel partners becomes a necessity, and native APIs from top cloud providers facilitate this integration. AI and ML play a crucial role in claims settlement, automating processes and simplifying procedures to enhance efficiency.

Moreover, Cloud computing and digital transformation are essential if the banking and insurance sectors are to see significant improvements. Only by reviving current operations, enhancing workplace culture, and transformed by the digital revolution, which made smart transactions, demand-supply balance, and round-the-clock support for question resolutions possible. All facets of the banking and insurance industries are seeing operational and cultural changes as a result of cloud computing and digital transformation.

In order to create unwavering security and finally say goodbye to outdated technologies, the industry needs to move quickly to embrace the cloud as the driving force behind its digital transformation efforts. It is imperative for banks and insurers to adopt cutting-edge technology and processes in order to fully investigate the potential benefits of the cloud shift. Nonetheless, capable personnel will be required to supervise the innovation.

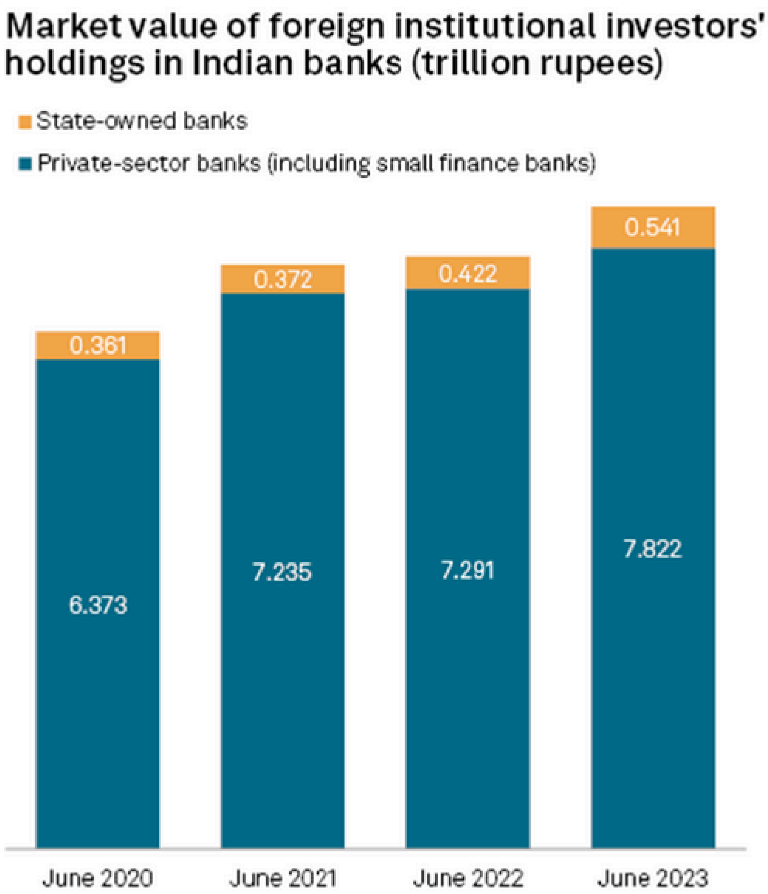
The acceleration of digital transformation, coupled with cloud adoption, offers a roadmap for the banking and insurance industries to reshape their operations. Shedding legacy systems, fostering innovation, and prioritising customer experiences are essential steps for ensuring resiliency and success in a connected ecosystem. The industry's preparedness to evolve methods of doing business will determine its ability to thrive in the competitive landscape.

In summary, the digital transformation of the banking and insurance industry is multifaceted, driven by the evolving preferences and expectations of customers. Adapting to these changes requires continuous innovation, strategic partnerships with technology providers, and a customer-centric approach. The integration of advanced technologies, cloud infrastructure, security measures, data analytics, and automation is central to navigating the dynamic landscape of digital finance and insurance.

Expansion into emerging markets

As investors look for stronger returns despite increased credit growth, improved margins, and stable asset quality, Indian banks are well-positioned to draw in more and more foreign capital. As of June 30, foreign institutional investors' stakes in Indian banks had increased significantly to 8.363 trillion rupees, a notable gain over the previous year. The country's strong prospects for economic growth, the excellent lending performance of lenders, and India's position as the fastest-growing major global economy are all credited with this increase. About 93.5 percent of these investments are made in India's biggest private banks, ICICI Bank Ltd., HDFC Bank Ltd., and Kotak Mahindra Bank Ltd.

Fig 12.1



being the most popular options among international investors. According to analysts, investors' high interest rates have been maintained by the private sector banks' consistent loan growth, which has surpassed 15% over the previous ten years. The rapid post-COVID growth rebound and the bottoming out of the corporate nonperforming loan cycle are credited with the recent improvements in profitability and asset quality. Due to its solid economy, favourable demographics, and high investment ratios, India continues to be a desirable market for international investors. Analysts advise considering investing in Indian banks, particularly in light of the fiscal second quarter's positive results.

Table 12.1

Top 10 foreign institutional investors in Indian banks by market value of holdings (billion rupees)

Investor	Country	2020	2021	2022	2023	Top investee
Capital Research & Mgmt Co.	US	748.17	704.85	628.74	542.90	Kotak Mahindra Bank Ltd.
BlackRock Inc.	US	269.89	379.50	386.22	452.48	ICICI Bank Ltd.
GIC Private Ltd.	Singapore	139.14	67.50	228.10	338.72	ICICI Bank Ltd.
Temasek Holdings (Pvt.) Ltd.	Singapore	193.33	211.27	251.74	308.43	ICICI Bank Ltd.
Fidelity International Ltd.	Bermuda	166.02	180.84	228.10	285.35	HDFC Bank Ltd.
Mirae Asset Global Investments Co. Ltd.	South Korea	183.07	212.63	256.84	268.20	HDFC Bank Ltd.
Morgan Stanley Investment Management Inc.	US	183.41	407.94	326.71	266.13	HDFC Bank Ltd.
Norges Bank Investment Management	Norway	135.27	164.95	180.20	234.08	ICICI Bank Ltd.
Invesco Ltd.	US	234.45	254.43	256.61	228.59	Kotak Mahindra Bank Ltd.
FMR LLC	US	251.56	214.06	212.45	226.29	HDFC Bank Ltd.

Data compiled Sept. 6, 2023.

Data as of June 30 of each year.

Sample includes the 10 largest foreign institutional investors by aggregated market value of investment as of June 30, 2023, in Indian state-owned, privately-owned, and small finance banks, as classified by the Indian Department of Financial Services, that are covered by S&P Global Market Intelligence.

Figures converted to local currency using exchange rate as of June 30 of each year under analysis.

Table 12.2

Top 10 domestic institutional investors in Indian banks by market value of holdings (billion rupees)

Investor	2020	2021	2022	2023	Top investee
Life Insurance Corp. of India	1,979.05	1,946.54	2,198.81	2,290.89	State Bank of India
SBI Funds Management Ltd.	773.20	765.30	1,083.47	1,252.27	ICICI Bank Ltd.
HDFC Asset Management Co. Ltd.	604.72	445.53	509.87	569.22	HDFC Bank Ltd.
ICICI Prudential Asset Management Co. Ltd.	586.29	441.83	706.16	549.74	ICICI Bank Ltd.
HDFC Investments Ltd.	429.70	422.84	449.50	466.84	HDFC Bank Ltd.
UTI Asset Management Co. Ltd.	245.62	249.96	356.09	408.16	ICICI Bank Ltd.
Nippon Life India Asset Management Ltd.*	380.35	320.50	379.39	357.13	HDFC Bank Ltd.
Nps Trust	130.14	179.53	257.82	309.59	ICICI Bank Ltd.
Kotak Mahindra Asset Management Co. Ltd.	275.32	289.62	341.89	293.59	ICICI Bank Ltd.
Aditya Birla Sun Life AMC Ltd.	263.65	249.20	278.16	279.47	ICICI Bank Ltd.

Data compiled Sept. 6, 2023.

Data as of June 30 of each year.

Sample includes the 10 largest domestic institutional investors by aggregated market value of investment as of June 30, 2023, in Indian state-owned, privately owned and small finance banks, as classified by the Indian Department of Financial Services, that are covered by S&P Global Market Intelligence.

* Nippon Life India Asset Management Ltd. is a subsidiary of Japan's Nippon Life Insurance Co.

Figures converted to local currency using exchange rate as of June 30 of each year under analysis.

The market value of foreign institutional investors' holdings in private-sector banks in India has increased significantly, from 7.291 trillion rupees to 7.822 trillion rupees as of June of last year. Conversely, the market value of stakes in Indian state-owned banks increased from 422 billion rupees to 541 billion rupees in the previous year. Notable foreign investors in Indian banks include BlackRock Inc., based in Singapore, and Capital Research and Management Co., based in the United States. Further investments from places such as Australia, Europe, Japan, South Korea, and the Middle East are anticipated, given the development prospects India's banking sector presents and the need for alternatives by international investors in light of geopolitical shifts.

Fig 12.2

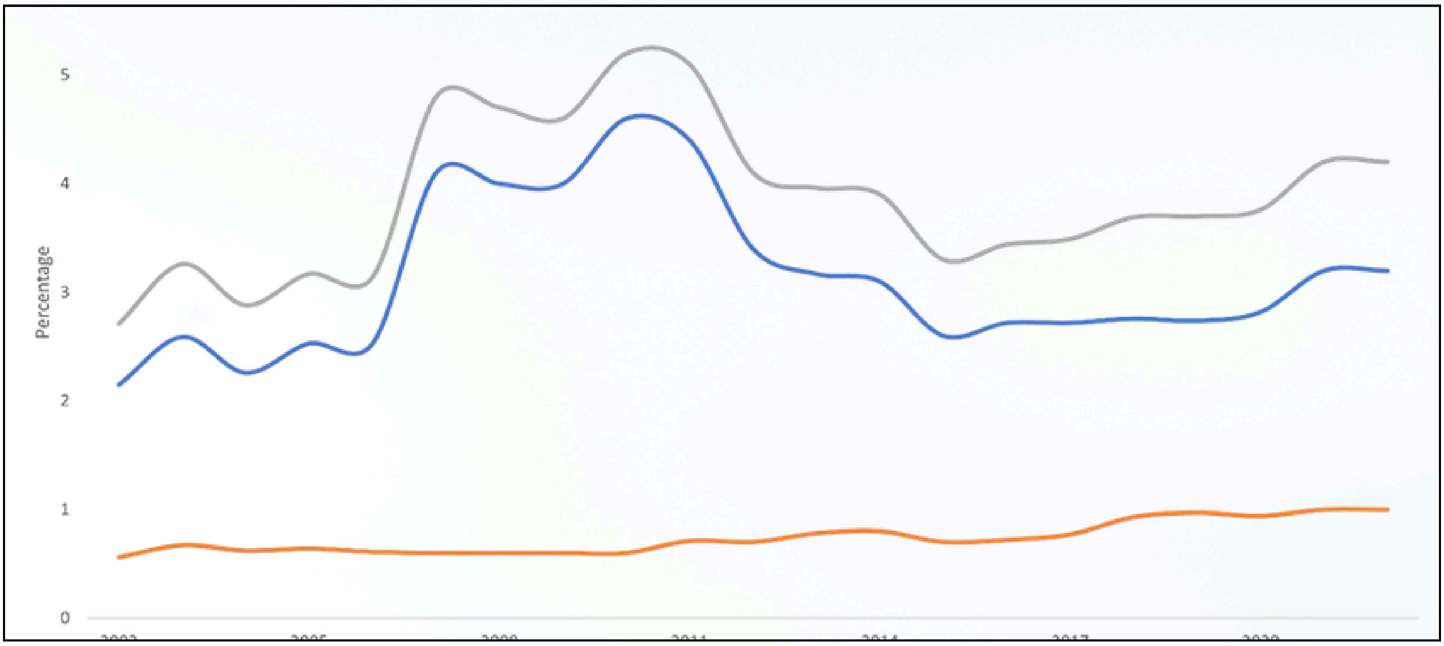
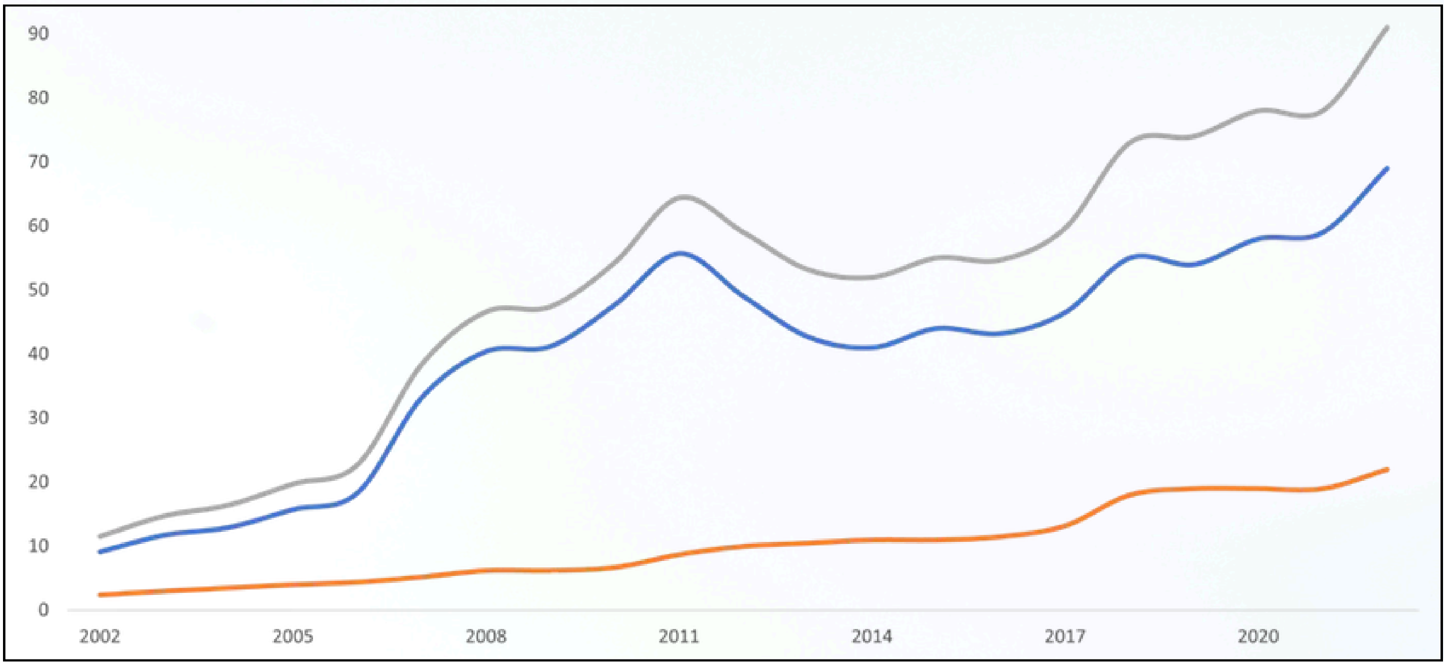


Fig 12.3



Despite obstacles brought about by the COVID-19 pandemic, ecological issues, and geopolitical conflicts, the insurance market in India has seen strong growth, with growth of 10.3% in FY 2022. Compared to the 7.9% growth rate of the previous year, this growth is noticeably higher. The industry's resiliency has been aided by its quick adoption of digitization, solid risk management principles, and customer-focused mindset. As of 2021, the market penetration rate for life insurance is still 3.2%, which presents a chance for growth.

Even though the insurance sector is still seeing growth, only 18% of eligible Indians are subscribing to pure retail term offers, indicating a protection gap. It is anticipated that the protection gap would widen, giving insurers the chance to launch new protection plans that take into account changing risks. It is expected that the protection gap in India will shrink as a result of the government's emphasis on promoting financial inclusion through insurance programmes, the adoption of digital-first operating models, and technological initiatives.

Insurance companies have prioritized enhancing client experiences with claims, standardizing terminology, and simplifying policy wording. This has instilled greater confidence in customers due to improved claims settlement percentages across health, life, and general insurance. The government's pivotal role in promoting insurance among rural communities through various initiatives highlights significant potential in the rural insurance market. While distribution costs remain a challenge for private sector insurers in rural areas, advancements in technology, increasing smartphone usage, and improving internet accessibility are expected to mitigate these challenges. Consequently, these developments are projected to reduce distribution expenses and enhance the attractiveness of the rural insurance market.

Government programmes like IRDAI's Bima Vahak and Bima Vistaar are designed to raise awareness of insurance, foster trust, and offer reasonably priced, all-inclusive plans for the rural populace. Looking ahead, low-cost, automated operations and customised services in rural markets are projected to be driven by technological solutions including digital self-service journeys for claims processing, AI-led risk assessment for underwriting, and drones and image recognition in crop insurance. In the upcoming years, significant advancements in the rural insurance sector will depend heavily on utilising technology.

Expansion into emerging markets

The Indian banking sector stands at the forefront of the nation's socio-economic development, assuming a pivotal role in steering the financial services landscape towards sustainability. As India endeavours to achieve net zero emissions by 2070, the banking industry has emerged as a critical player, actively endorsing environmental, social, and governance (ESG)-linked financing and fervently pursuing sustainability objectives.

The impetus for sustainability within the banking industry has been driven by India's ambitious agenda, aiming to derive 50% of energy from non-carbon sources and establish 500 gigawatts of non-fossil fuel capacity by 2030. Noteworthy strides include a strategic focus on online banking, card-based transactions, and the introduction of innovative Green Finance instruments, coupled with the establishment of Green Banks. Ambitious green infrastructure projects, encompassing solar-powered ATMs, LED lighting implementations, and continuous solar-powered supply systems, signify a dedicated commitment to sustainability.

The Sustainable Banking & Finance Network's

2021 report places India in the Implementation Phase of sustainability, underlining the country's commitment to the cause. A substantial move in this direction is the Indian government's plan to issue ₹263 billion in sovereign green bonds, a commendable initiative amplifying green funding for renewable energy projects.

Among the significant sustainability initiatives is the 'Sustainable Finance Scheme' by the Small Industries Development Bank of India (SIDBI), designed to fund projects contributing to energy efficiency and cleaner production, such as solar power plants and wind energy generators. Collaboration with the Global Climate Fund (GCF) has facilitated impactful projects in e-mobility, solar rooftop, and climate resilience, successfully reducing greenhouse gas emissions.

The emergence of "blended finance," a synergy of public and private capital for environmentally friendly projects, has gained prominence, with 27 banks contributing green bonds, loans, or funding to mitigate climate change effects by March 2022.

Fig 12.4

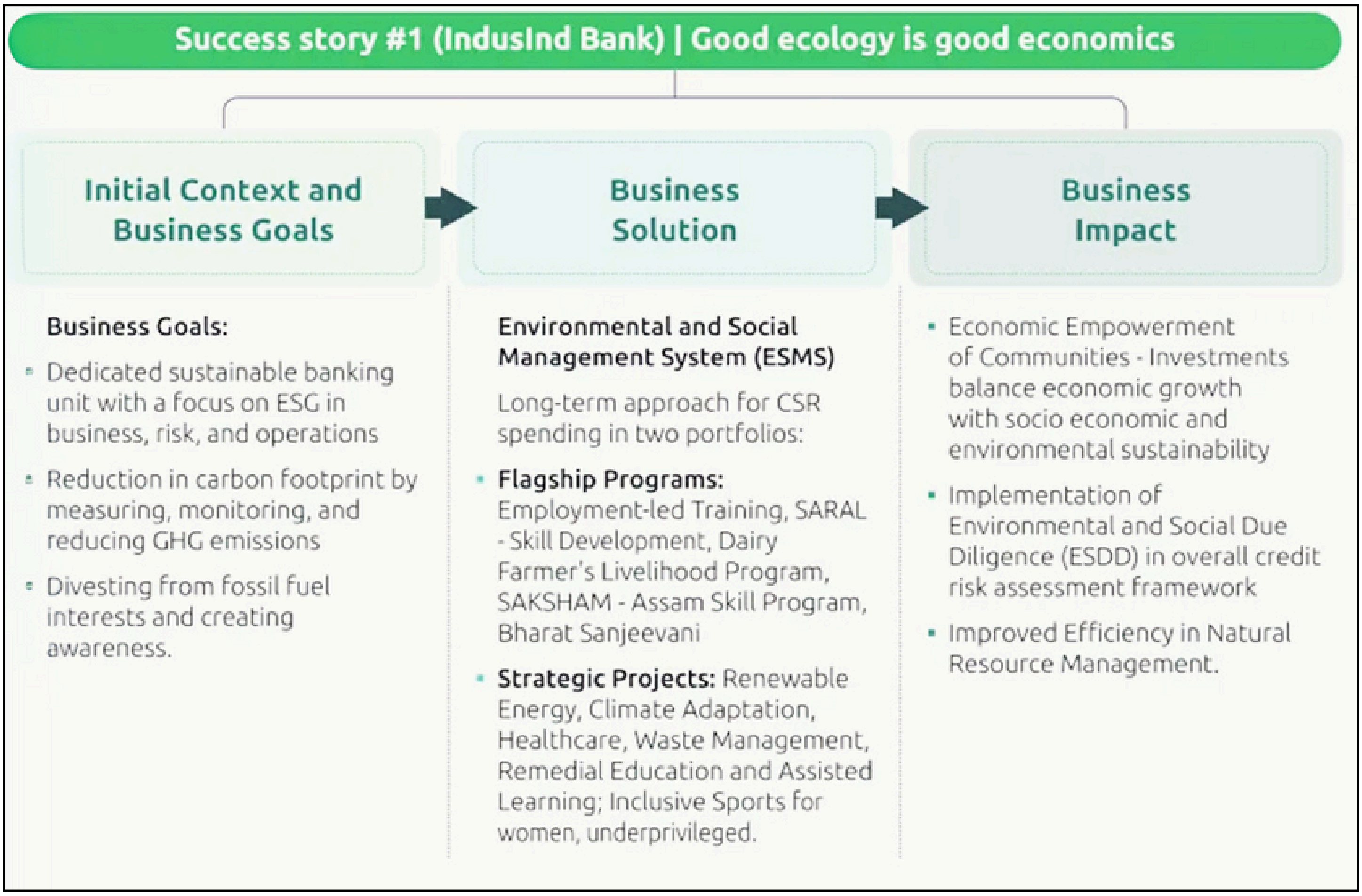
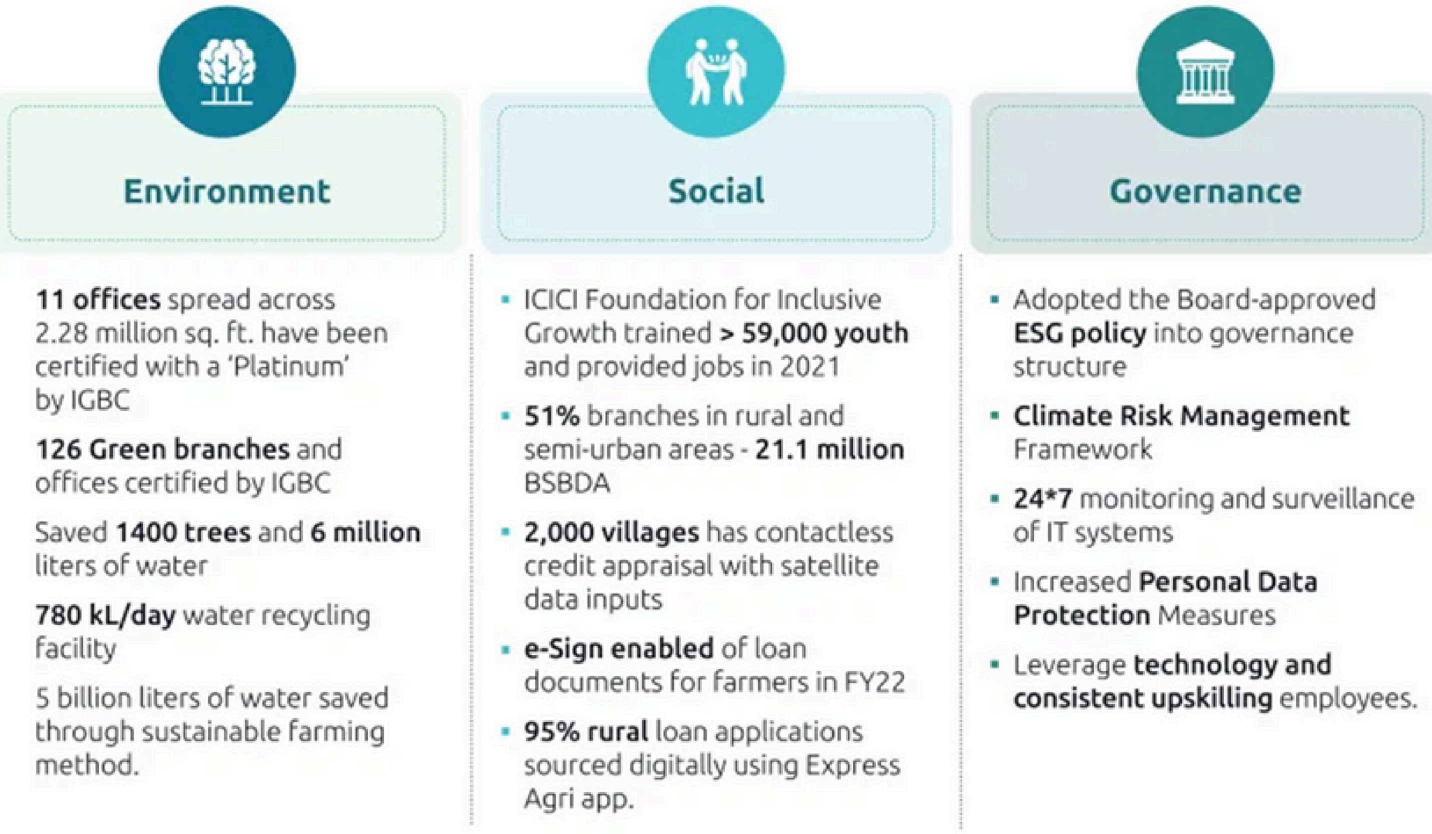


Fig 12.5



Success Story 2: Sustainability Transformation & Milestones Achieved - ICICI Bank (India)(Source: Capgemini Invent Analysis)

The banking industry's heightened focus on sustainability is a response to evolving investor demands and a shift in consumer sentiment. The trajectory toward sustainability transformation requires a nuanced approach, necessitating the alignment of external and internal perspectives. This involves catering to environmentally conscious clients, committing to sustainability ideals, and streamlining internal processes in harmony with sustainability goals.

While a Reserve Bank of India study reveals that only 6% of the country's top banks currently offer green products, there is an optimistic outlook as 56% of these banks express their intent to prioritise sustainable lending in the short to medium term.

The roadmap for financial institutions' sustainability transformation encompasses the issuance of green bonds and the provision of green lending products. It commences with a comprehensive current state assessment and establishing SMART (specific, measurable, achievable, relevant, and time-bound) targets. Crucial steps include aligning stakeholders, integrating sustainability into institutional strategy and procedures, and setting priorities, planning, implementing initiatives, and tracking/reporting progress.

Fig 12.6

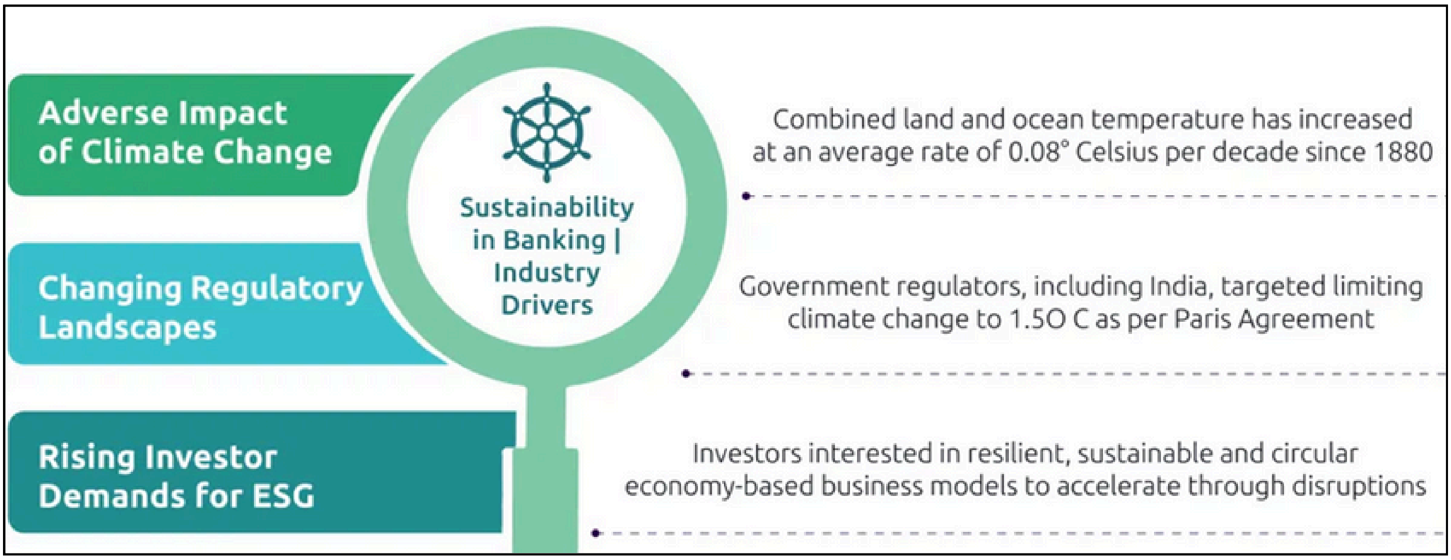
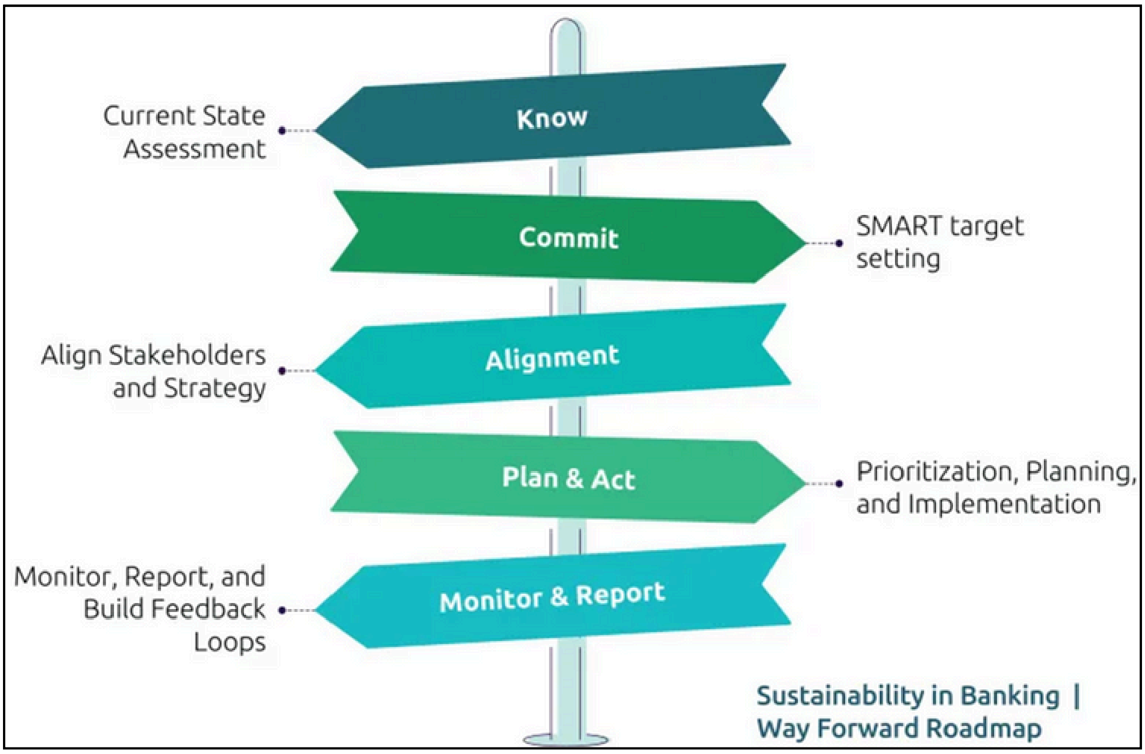


Fig 12.7

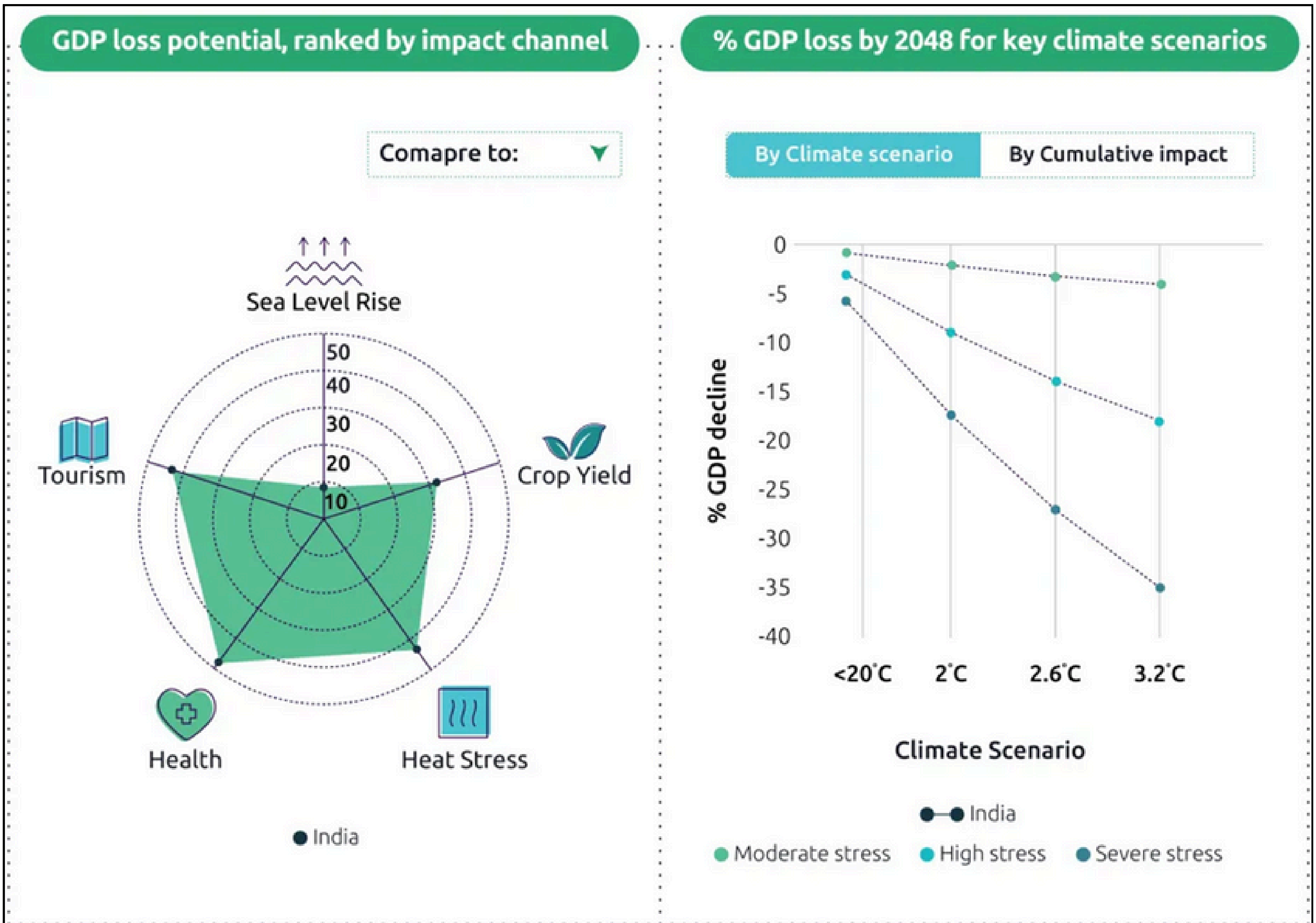


Exemplary cases, such as those of IndusInd Bank and ICICI Bank, illustrate the effectiveness of sustainable practices, while State Bank of India (SBI) and HDFC Bank champion green initiatives like electric vehicle loans, showcasing early adoption of sustainable practices through the issuance of green bonds.

Given India's ESG targets, the leadership of the banking sector in advancing sustainability is paramount. Global insurers operating in India are spearheading sustainability initiatives, with Munich Re, Swiss Re, Generali, AIG, Cigna, and Liberty Mutual embracing endeavours ranging from coverage for battery storage to discontinuing insurance for intensive oil and gas producers.

Similarly, India boasts a total of 55 insurance companies, delineated into 31 general insurance and 24 life insurance entities. According to the latest annual report from the Insurance Regulatory and Development Authority of India (IRDAI), the Indian insurance market secured the eleventh position globally in 2020, contributing 1.72% to the global insurance market with a premium volume of $107.9 billion.

Fig 12.8



Source: https://www.swissre.com/risk-knowledge/building-societal-resilience/covid-19/how-insurance-can-support-a-more-sustainable-india.html

Future planning for India's banking and insurance sectors takes into account a changing environment influenced by technological advancements. The business models of current participants in these industries are expected to be redefined by these trends, which range from cloud-based infrastructure to cooperative Fintech partnerships. The banking and insurance industries are predicted to experience a radical metamorphosis as 2030 draws near, necessitating that companies adjust to remain competitive.

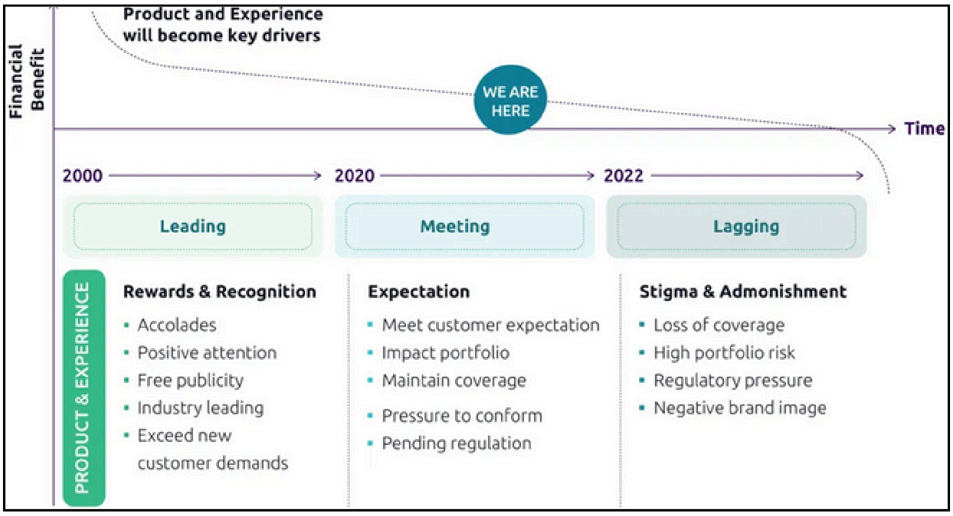


Fig 12.10

Münchener Rück
Munich Re Group

Insurance companies play a pivotal role in advancing the sustainability agenda, acting as risk managers, influencers of social policy, and providers of protection. Initiatives such as green loyalty programs, sustainable insurance products, pay-as-you-drive (PAYD), LEED certification, green behavior discounts, and green building projects contribute to fostering a more sustainable community. Public relations campaigns elucidating the importance of a sustainable future serve to raise awareness about both sustainability and insurance.

Global insurers operating in India showcase a strong commitment to sustainability through various initiatives:

- Munich Re introduces compensatory coverage options for photovoltaic projects and performance coverage for battery storage.
- Swiss Re commits to discontinuing insurance provision to the top 10% of the most active oil and gas producers by 2023, aligning with a cessation of investments in these companies.
- Generali establishes a competence center to share best practices for underwriting specific risks in the renewable energy sector.

- AIG creates an ESG-segregated fund to support impact and sustainable investing, promoting natural disaster risk modeling and climate risk anticipation.

- Cigna adopts a strategic sustainability performance plan, emphasizing waste management, energy efficiency, reusability/recycling, and emission reduction.
- Liberty Mutual develops a new stochastic wildfire model, aligning underwriting practices with the latest weather information.

Indian insurers are embracing common environmental, social, and governance (ESG) frameworks, signifying the industry's early strides in adopting sustainability. The General Insurance Council (GI Council), representing 45 non-life insurance and reinsurance companies, recently joined the United Nations initiative, Principles for Sustainable Insurance (PSI), highlighting the industry's nascent but growing commitment to sustainability.

This narrative highlights both global and Indian initiatives in fostering sustainability and underscores the indispensable role played by the insurance industry in advancing this crucial agenda.

Impact of Global Events

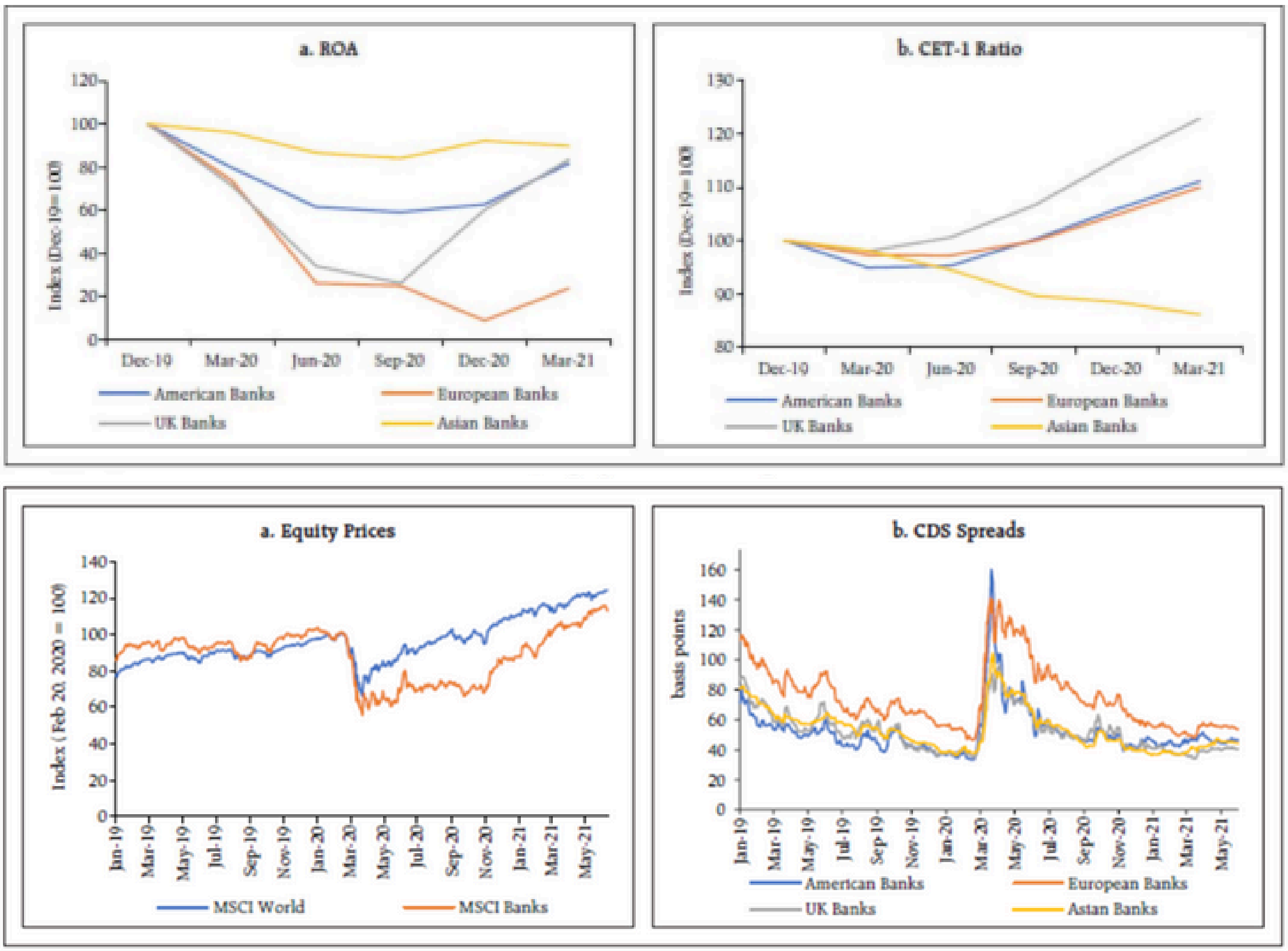
COVID-19 Pandemic

The global economy witnessed a rebound in economic activity as it recovered from the impacts of the COVID-19 pandemic, albeit unevenly across regions. Major risks included rising crude oil prices, inflationary pressures, and unclear global policies. Financial institutions with robust capital and liquidity buffers remained resilient, but retail credit portfolios and Micro, Small, and Medium-Sized Enterprises (MSME) required close monitoring. Banks were advised to strengthen safeguards, enhance governance, and stay vigilant against worldwide spillovers.

The recovery was propelled by massive policy support and vaccination campaigns, with each country experiencing a varied rate of recovery. Global trade rebounded, leading to inflationary risks, particularly in food, base metals, and crude oil prices. Despite sustained favorable global financial conditions through monetary and fiscal stimulus measures, challenges persisted. These challenges included the evolving nature of the virus, rising input costs, and potential conflicts between policymakers and markets over the normalization of accommodative policies.

The International Monetary Fund (IMF) projected global economic growth to reach 6% in 2021 before slowing to 4.4% in 2022. Emerging and developing nations were expected to recover from a -2.2% contraction in 2020 to grow by 6.7% in 2021.

Figure 13.1



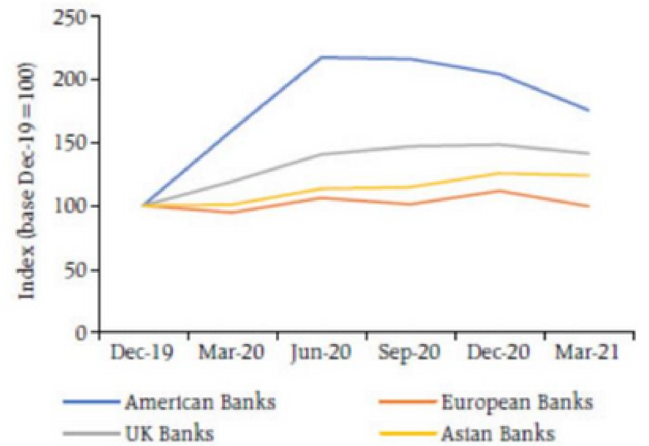
Source: Bloomberg and Refinitiv.

The global economy witnessed a rebound in economic activity as it recovered from the impacts of the COVID-19 pandemic, albeit unevenly across regions. Major risks included rising crude oil prices, inflationary pressures, and unclear global policies. Financial institutions with robust capital and liquidity buffers remained resilient, but retail credit portfolios and Micro, Small, and Medium-Sized Enterprises (MSME) required close monitoring. Banks were advised to strengthen safeguards, enhance governance, and stay vigilant against worldwide spillovers.

The recovery was propelled by massive policy support and vaccination campaigns, with each country experiencing a varied rate of recovery while advanced economies were predicted to grow by 5.1% in 2021. Risks included new virus variations, inflationary pressures, and challenges in normalizing policies. In the second quarter of 2021, financial markets continued to rise, with advanced economy equities reaching all-time highs.

Credit default swap spreads for banks mostly recovered, but concerns lingered about market liquidity and potential conflicts between markets and policy authorities on policy normalization. The first half of 2021 saw an improvement in global economic performance due to vaccination advancement

Figure 13.2



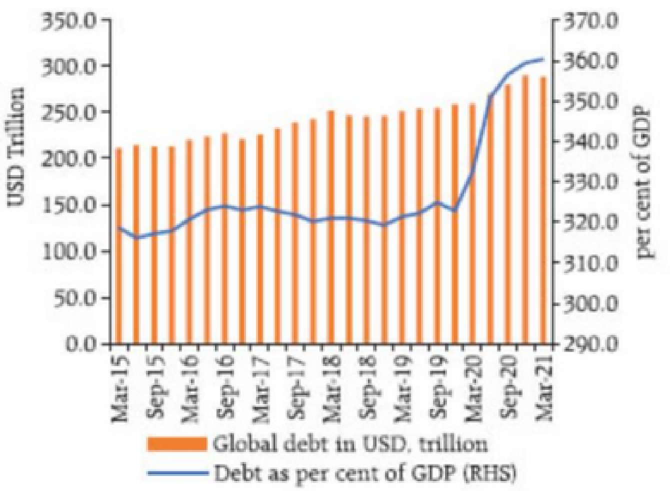
and policy support. However, the recovery was uneven, with developed economies benefiting more from vaccination, while some emerging market economies struggled with limited vaccine access, slow deployment, and fresh outbreaks. Despite increased global trade, shipping expenses remained high. According to IMF projections, both advanced economies and emerging and developing nations were expected to contribute to the global economic recovery, targeted at 6% growth in 2021. Risks included uncertainties about the virus, higher input costs, and potential conflicts between markets and policymakers regarding stimulus removal.

Globally, banks entered the pandemic with robust balance sheets, thanks to post-global financial crisis reforms. While stable funding, enhanced liquidity, and higher capital levels enabled banks to withstand shocks, concerns persisted about profitability, credit ratings, and the potential rise in non-performing assets (NPLs). Tightening global financial conditions affected credit default swap spreads on banks in emerging markets.

Credit rating downgrades were driven by concerns about bank profitability, but capital ratios improved, especially in developed market banking systems. Ongoing concerns about corporate insolvencies and NPLs were tied to the strength of the recovery and the continuation of policy support. Risks included sovereign exposure, the creation of "zombie" firms from extended support, and challenges arising from low interest rates. Big tech companies pose unique challenges for the banking industry, offering a range of digital financial services and holding significant influence. Concerns revolved around achieving a level playing field, operational risks, too-big-to-fail issues, cybersecurity, and data privacy. The potential solution for or financial stability might involve entity-based prudential regulation of big tech companies combined with mixed activities.

The COVID-19 pandemic significantly increased global public and private debt, rising by USD 24 trillion in 2020 alone. A sample of 61 countries had a combined total debt of USD 214 trillion in 2020. The pandemic underscored the financial cost by affecting household debt and the private sector. Managing debt while promoting economic recovery emerged as a substantial challenge.

Figure 13.3



On the other hand, the insurance sector, a vital component of a nation's security, faced challenges and opportunities in the wake of the COVID-19 pandemic. The global economic recovery, driven by vaccination progress and policy support, had varying impacts on different regions. Rising inflation, unclear global policies, and increased commodity prices presented risks.

India, among the 15 most impacted economies by COVID-19, faced challenges in various industries, including chemicals, textiles, automotive, electrical machinery, leather products, metals, and wood products. Public places and the motor insurance market suffered from pandemic-induced lockdowns and the existing slowdown in the automobile sector.

Industries relying on event, liability, and property insurance, such as hospitality and events, encountered setbacks. The travel insurance market declined due to reduced travel, while health insurance faced increased inquiries and opportunities for product development. A PwC CFO Pulse Survey highlighted concerns across industries, with 51% of CFOs expecting a 25% revenue drop due to COVID-19. The financial services sector, including insurance, held a slightly more pessimistic outlook, with 33.3% anticipating a 25–50% decline in revenue. The insurance industry faced workforce productivity, financial impact, and consumption challenges. The industry's dependence on other sectors posed risks unless both the economy and the industry found new markets or experienced growth.

CFOs considered cost containment and investment deferral/cancellation, impacting workforce, IT, R&D, digital transformation, operations, and facilities. India's early measures and nationwide lockdown showcased efforts to control the situation amid a spike in cases.

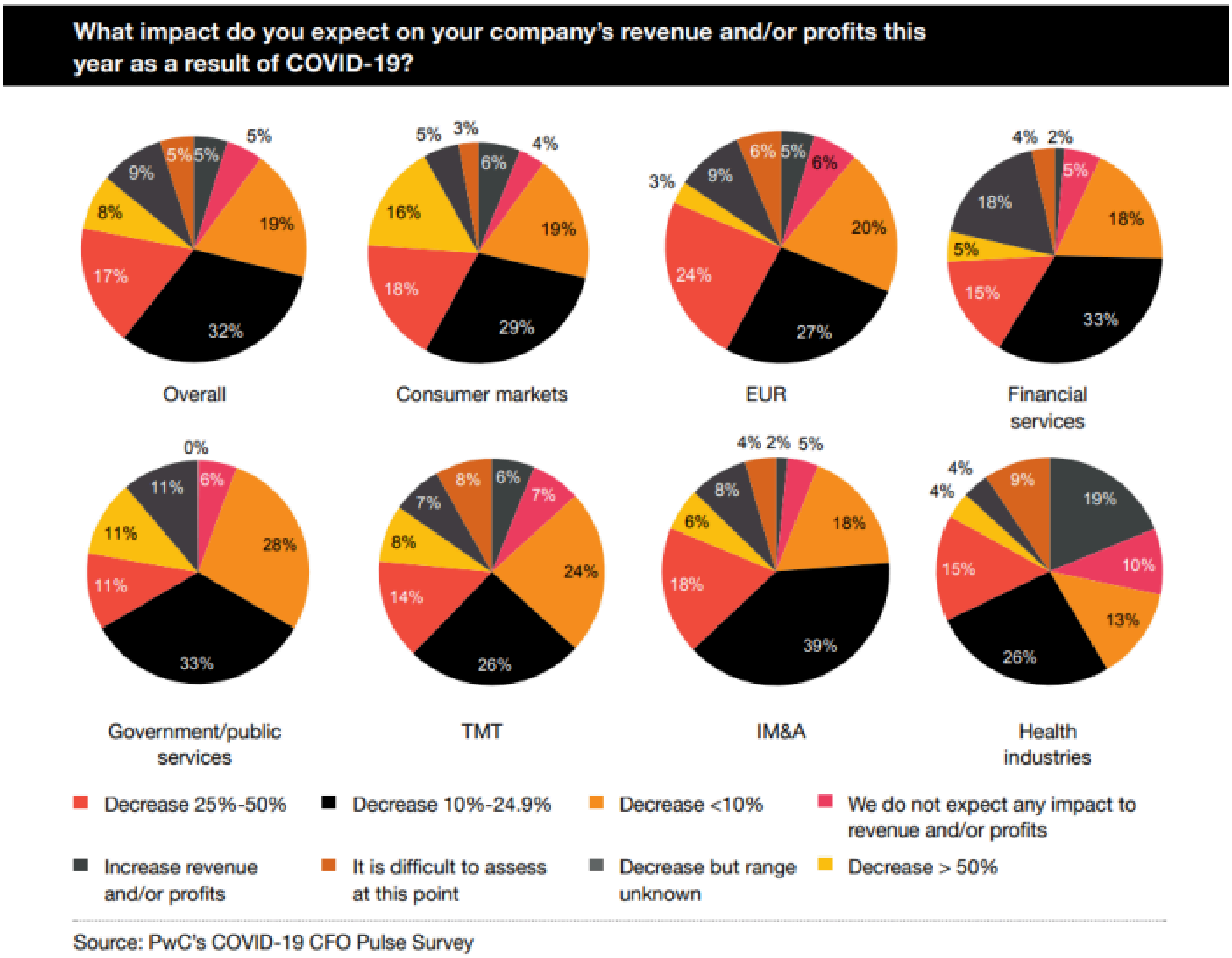
The COVID-19 pandemic presented short-term and long-term challenges for the insurance sector. Aging portfolios, potential claims for the next seven years, and India's historically low insurance penetration added complexity, despite programs like Ayushman Bharat.

Health insurance is finding itself in a challenging position due to rising claims load on the same data points by co-morbidities adding up and community spreads being further exacerbated by pandemic. Despite of that, the crisis has apportioned knowledge that has enables an abnormal amount of insurance inquiries and channels for about product development.

With a potential claims payout of USD 107 billion in 2020, COVID-19 became the largest global insurance event, impacting India's general insurance sector. Disruptions in the automotive, travel, hotel, infrastructure, and manufacturing industries posed challenges. The motor insurance market faced issues like a lack of new car sales, lockdown impacts on claim surveying, and disagreements over the 30-day non-occupation clause. Property insurance dealt with challenges in depreciation, reconstruction value versus market value, and the 30-day non-occupation clause. The COVID-19 pandemic presented short-term and long-term challenges for the insurance sector. Aging portfolios, potential claims for the next seven years, and India's historically low insurance penetration added complexity, despite programs like Ayushman Bharat.

In conclusion, the impact of the COVID-19 pandemic on both the Indian banking and insurance sectors presented a multifaceted landscape, encompassing challenges and opportunities. Navigating this complex environment underscored the imperative for adaptability and strategic planning. Banks have proved their stability despite concerns regarding profitability, efficiency and non-performing loans along with digitalization role played by major players. This only shows that such entities need to be closely observed by competent authorities and regulators.

Figure 13.4



Geopolitical events

Trade tensions - Russia and Ukraine War

In her post-budget interaction, Finance Minister Nirmala Sitharaman emphasized the potential risks the ongoing Russia-Ukraine crisis poses to India's financial stability. The crisis has significantly disrupted the global economic landscape. Macro-level disruptions brought about by the crisis have increased inflationary pressures, driven up crude oil prices, and depreciated the Indian rupee. Macroeconomic sentiments have been further undermined by geopolitical tensions, leading to a risk-averse climate, outflows of foreign portfolio investments (FPIs), and widespread selling in currency and equity markets.

Although less than 1% of India's total oil needs are met by imports, the nation is largely dependent on Russian crude oil exports for the remaining 85%. The third-largest oil producer in the world, Russia, is the target of sanctions that have repercussions for the Indian economy.

A larger oil import bill, which exacerbates the current account deficit and Consumer Price Index (CPI) inflation, is one way to see the indirect effects.

The bulk of India's $8.6 billion in non-military imports from Russia are essential goods like coal, oil, fertilizer, and precious metals. On the other hand, the $3.3 billion in exports consist of products like tea, coffee, electronics, iron and steel, and auto parts, with a lesser portion coming from banking and financial services.

According to the most recent statistics, India's monthly CPI is 6.1% year over year. The country's current account deficit for the quarter was -$38,320 million, while FDI outflows totaled -$13,381 million.

Understanding the relationship between rising crude prices, an expanding current account deficit, and real GDP growth rates requires examining India's economic performance in the post-pandemic years, like

Figure 14.1

India Macro Indicators	2018	2019	2020	2021	2022
Average Annual Crude Oil Price (USD/barrel)	71.3	64.3	42.0	70.9	90.7
Real GDP Y-o-Y (%)	6.80	6.45	3.74	-6.60	8.95
Consumer Price Index (CPI) Inflation Y-o-Y (%)	3.95	3.72	6.62	5.14	6.01
Current Account Surplus/Deficit GDP (%)	-2.10	-0.90	0.90	0.90	-1.40
Average Annual USD INR Exchange Rate	68.41	70.40	74.13	73.93	74.73

Figure 14.2

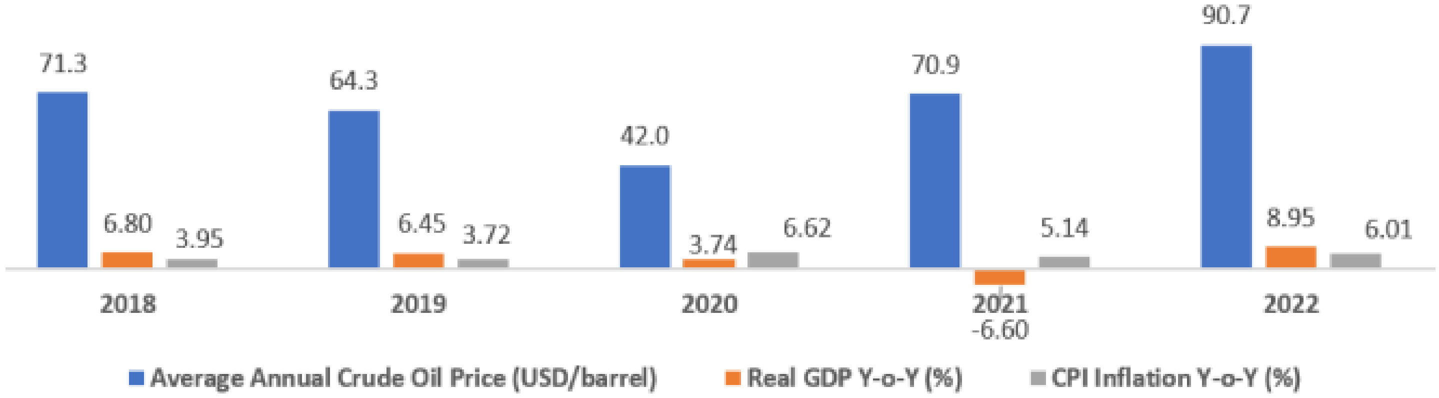


Table 14.1

Imapct Analysis of Crude Price Increase	
Crude Price $ Increase	10
CPI Inflation (%) increase	1.76%
Real GDP Growth (%)	-0.30%
Current Account Deficit ($ Billion)	-910.00

2020–21, when crude oil futures briefly reversed course. The Banking, Financial Services, and Insurance (BFSI) industry is impacted in a cascading manner by these macro developments.

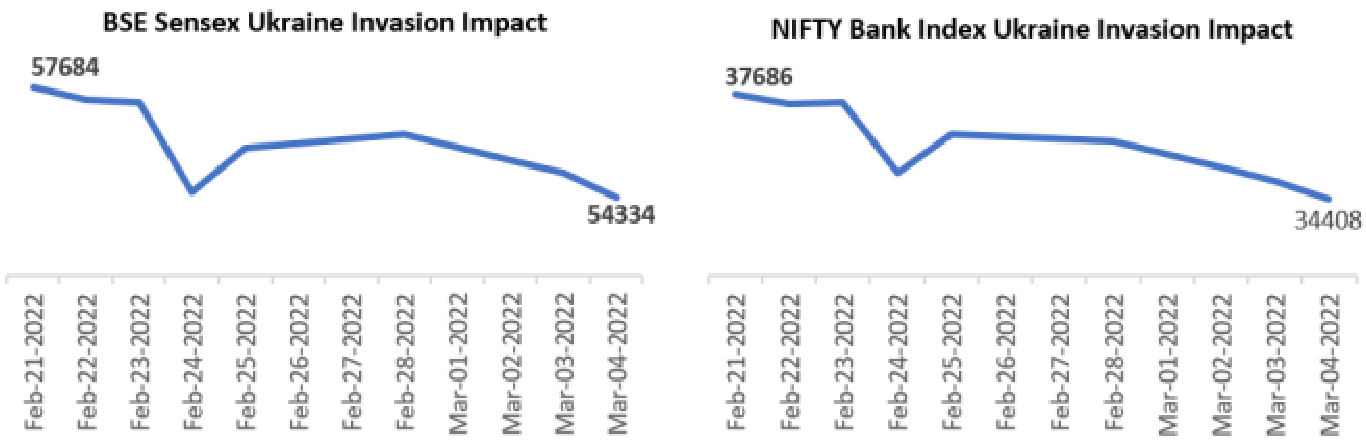
According to an impact analysis, a $10 increase in the price of a barrel of crude oil has a significant impact on real GDP by 30 basis points, CPI inflation by 176 basis points, and the current account deficit by $910 billion.

The current account deficit in Q2 amounted to $9.6 billion, or 1.3% of GDP. To prevent the depreciation of the rupee, the Reserve Bank of India (RBI) might have to sell $30 billion of foreign exchange reserves if crude prices rise above $150 per barrel from their current levels above $100 and there is a $20 billion FPI outflow. The average price of a barrel of crude oil has increased by 41% since the start of the COVID-19 pandemic and during the geopolitical tensions between Russia and Ukraine, while the rupee has depreciated by about 6%.

The Russian invasion of Ukraine resulted in a decline of approximately 3350 points for the BSE Sensex, reflecting the deteriorating macroeconomic indicators due to geopolitical tensions, and nearly 3278 points for the NIFTY Bank Index.

The Monetary Policy Committee (MPC) of the RBI kept the bank rate and marginal standing facility (MSF) rates at 4.25%, the reverse repo rate at 3.35%, and the repo rate at 4% in light of the impact on rates. The RBI is considering raising repo rates, which are customarily done during increases in the price of crude oil, in response to the geopolitical unrest and increasing inflation pressure. If the government does not reduce excise duties, it

Figure 14.3



is anticipated that there will be consecutive rate hikes of 25 basis points, bringing the repo rate to 4.75% by March 2023.

In this scenario, banks park money with the RBI and earn higher interest rates as a result of rate tightening. This results in less liquidity in the system for business loans and credit disbursements. Nonetheless, banks have typically been able to pass these rate increases through to their clients by raising loan interest rates, which has helped to drive trends in net interest income and overall profitability.

The Return on Equity (ROE) and Return on Assets (ROA) profiles of the Indian BFSI sector have improved, according to a thorough analysis of key financial ratios conducted between 2018 and 2022. The sector has a generally strong foundation. Along with increases in net income growth and annual revenue, net income margins have expanded.

Examining profitability metrics for large-cap banks, such as State Bank of India (SBI), HDFC Bank, ICICI Bank, Kotak Mahindra Bank, and Axis Bank, reveals strong net interest margins and robust growth in net income and revenue over the course of a year, even in the face of inflation and the rise in crude oil prices amid geopolitical tensions.

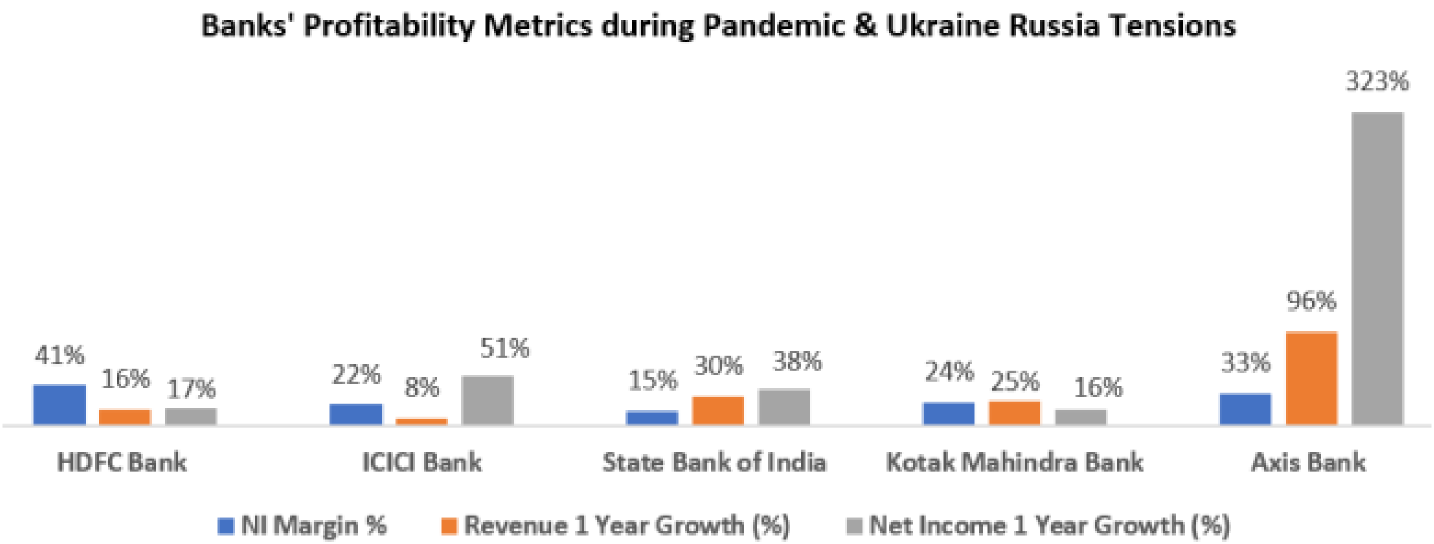
Based on estimates, the exposure of Indian banks to Russia is thought to be negligible, mainly from joint ventures and financing to Indian importers or exporters with ties to both nations. For example, the exposure of SBI and Canara Bank to Russia, including joint ventures, represents a negligible portion of their net loan portfolios overall.

In addition, the conflict between Russia and Ukraine is having a significant impact on the insurance sector. Global corporate policyholders have reduced or stopped doing business with Russian organizations, abandoning real estate, equipment, and stock,

Table 14.2

India Financials Key Stats	2018	2019	2020	2021	2022 latest
ROA (%)	(0.2%)	(0.1%)	0.5%	0.7%	0.7%
ROE (%)	(0.7%)	1.3%	7.3%	9.5%	7.9%
Net Income Margins (%)	10.4%	7.7%	11.3%	16.8%	13.6%
1 Year Revenue Growth (%)	4.6%	25.6%	9.2%	21.5%	24.5%
1 Year NI Growth (%)	(26.1%)	78.8%	37.8%	51.3%	56.3%

Figure14.4



which has led to large losses. It is estimated that the insurance and reinsurance markets could suffer losses of up to $35 billion, or close to $20 billion. Coverage issues are brought up by the conflict, particularly for policies that have "war exclusion" clauses. Corporate policyholders who purchase Political Risk Insurance can ask for coverage against losses resulting from confiscated or damaged property during times of political unrest or conflict. It is imperative to conduct a thorough examination of the policy language and loss circumstances.

The assessment procedure will likely become more complicated as insurers see an increase in claims for losses resulting from data breaches or cyberattacks. Because it is difficult to identify the perpetrators of cyberattacks, cybersecurity policies must be specific to prevent ambiguity regarding coverage.

In addition to paying claims, the war might make it more difficult for Russia to get insurance for its government and activities.

There have been attempts to limit insurance offerings and coverage for Russian companies engaged in the transportation of oil, which has led to worries about the availability and cost of oil globally.

In conclusion, the Indian banking and insurance sectors are affected in a variety of ways by the trade tensions brought on by the Russia-Ukraine conflict. The insurance industry operates in a complex and dynamic environment that is influenced by a range of factors, including macroeconomic indicators, geopolitical tensions that impact currency and interest rates, bank resilience, and the difficulties insurers face in managing complex claims and coverage. Insurance companies confront uncertainties about claims, coverage, and possible changes in the geopolitical landscape, whereas banks show strength in key financial ratios. The interaction of world events with the financial sector highlights the necessity of constant observation, flexibility, and strategic planning during these unpredictable times.

Conclusion

Road Ahead

The future of India's banking and insurance sectors looks bright, with increased infrastructure spending, quick project execution, and a dedication to continuous reforms. All of these signs point to the banking industry being well-positioned for strong expansion, driven by the growing credit requirements of quickly growing companies. With the advent of the Internet and mobile banking services, technological developments have forced the banking industry to focus more on enhancing customer experiences overall, upgrading technology infrastructure, and providing better client services to stay competitive.

Fintech and microfinance have grown rapidly in India in recent years; digital lending reached US$ 75 billion in FY18 and is expected to reach US$ 1 trillion by FY23, primarily due to a five-fold increase in digital disbursements. Between January 2017 and July 2022, the Indian fintech market raised US$ 29 billion through 2,084 deals, accounting for 14% of global funding and ranking second in terms of deal volume. By 2025, the fintech market in India is expected to grow to a value of Rs. 6.2 trillion (US$ 83.48 billion).

It is estimated that the life insurance industry in India will increase in an average of 14-15% within three-five year period. Regulatory reforms are going on steadily, while dozens of new InsurTech startups, numbering to over 110 altogether are appearing in the country; this will lead the changes in insurance sector. More than often, the Internet of Things (IoT) will push risk analysis to the background and involve more robotics, thus engineering the evolution of the medical field. Strategies applied by governmental institutions for crop insurance, i.e., PMFBY and PMJJBY, demonstrate the government's aspirations to aid insurance uptake. The combination of world tendencies like the emerging middle class and retirement concerns boosts the confidence level of the market players.

Future considerations for the banking and insurance industry

The rapid adoption of new technologies is fueling a profound transformation in India's banking and insurance sectors. Technological advancements have revolutionized the delivery of banking and insurance services, enhancing accessibility and convenience. Numerous significant trends are anticipated to shape the future trajectory of these industries as India continues to progress.

Trends in Banking Sector

Cloud-based Infrastructure: As more banks move their systems to the cloud, cloud-based infrastructure is starting to take off as a major trend. The use of public clouds with improved security features and the implementation of hybrid clouds, which combine on-premises and cloud setups, are anticipated to play major roles in determining the direction of banking in the future.

Blockchain Technology: Across the globe, blockchain technology is significantly improving data security for banks. Among its uses are streamlined KYC (Know Your

Customer) verification, quicker payments, fraud detection, and risk mitigation. Blockchain has the potential to optimize Indian banks' operational cost structures.

Open Banking: The introduction of API-based banking, also known as Open Banking, represents a significant change in the banking industry as it enables banks to provide a wide range of services from third parties via APIs (Application Programming Interface). This cooperative strategy, in which banks collaborate with Fintech firms, is likely to be a pivotal aspect of the financial industry going forward.

Artificial Intelligence (AI): According to Business Insider research, AI has the potential to save banks up to $447 billion by 2023, making it a revolutionary force in the banking industry. Applications of AI include chatbots, data protection, credit risk management, mobile banking, and data analysis.

Branchless Banking: In India, Branchless Banking is a big change from traditional banking operations. With this strategy, banking services are extended beyond physical locations by using sales representatives, mobile devices, and other channels to connect with clients. This emerging trend is highlighted by programs like the branchless banking offered by Union Bank of India.

Growing Fintech Partnerships: Working together, established banks and Fintech startups are becoming more and more common. A key component of the banking industry's future is this collaborative trend, which is being seen in both Europe and the US.

Trends in the Insurance Sector

On-demand Insurance: 'Switch-on and Switch-off' policies are an example of on-demand insurance. It reacts to customer preferences for goods that meet their immediate needs. One prominent example of how this trend is influencing the direction of finance is usage-based auto insurance, which bases coverage on the number of miles driven.

Digitalization: Customers can now examine and buy insurance policies online as the insurance industry experiences a shift towards digitalization. Online comparison tools make it simple to compare insurance providers for a variety of products, such as life, health, term, and auto insurance.

Technology's role: Innovations like robotic process automation (RPA), artificial intelligence (AI), and machine learning (ML) have the potential to have a big influence on how insurance finance is structured going forward. AI-powered chatbots simplify customer inquiries, machine learning (ML) can provide tailored solutions, and robotic process automation (RPA) lowers human error in tasks like claims processing and document verification.

Indian banking and insurance sectors are, of course, about to enter an era of technological innovations. With continuous cloud-based infrastructure, as well as collaboration, Fintech companies will redesign the pace at which firms run their business. At the start of 2030 companies have to adapt those business strategies to be able to compete out on the market. The banking and insurance industries are predicted to experience a rapid growth as 2030 draws near.

References

- https://www.ibef.org/industry/banking-india
- https://www.ibef.org/industry/insurance-sector-india
- https://ipbindia.com/banking-sector-in-india-importance/
- https://www.gainsworth.org/post/the-role-of-the-insurance-sector-in-the-economic-development-of-india
- https://blazeclan.com/india/banking-insurance-industry-trends/
- https://global.hitachi-solutions.com/blog/top-10-challenges-banking-financial-organizations-can-overcome/
- https://www.econstor.eu/bitstream/10419/242873/1/Working-Paper-394.pdf
- https://www.indmoney.com/articles/financial-regulatory-bodies-india
- https://www.bimakavach.com/blog/who-regulates-insurance-services-in-india-a-comprehensive-guide/
- https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/indian-banks-set-to-attract-foreign-investment-on-solid-metrics-growth-market-77446137
- https://www.pwc.in/research-and-insights-hub/bridging-gaps-in-the-india-insurance-sector.html
- https://www.mckinsey.com/industries/financial-services/our-insights/global-banking-annual-review#
- https://www.capgemini.com/in-en/insights/expert-perspectives/sustainability-in-insurance-industry-india/
- https://www.capgemini.com/in-en/insights/expert-perspectives/sustainability-in-banking-india/#:~:text=Small%20Industries%20Development%20Bank%20of,wind%20energy%20generators%2C%20mini%20hydel
- https://www.knowledgehut.com/blog/security/cyber-security-in-banking
- https://blog.safedns.com/surfing-the-seas-of-risk-cybersecurity-challenges-in-the-insurance-industry/
- https://www.nttdatapay.com/blog/recession-and-its-impact-on-india-economy/
- https://www.mckinsey.com/industries/financial-services/our-insights/how-top-tech-trends-will-transform-insurance
- https://www.oecd.org/finance/Technology-and-innovation-in-the-insurance-sector.pdf
- https://www.pwc.in/assets/pdfs/services/crisis-management/covid-19/covid-19-impact-on-the-indian-insurance-industry.pdf
- https://www.rbi.org.in/scripts/PublicationReportDetails.aspx?ID=1179#
- https://www.investindia.gov.in/team-india-blogs/bfsi-impact-russia-ukraine-crisis
- https://lewisbrisbois.com/newsroom/legal-alerts/the-impact-of-the-russia-ukraine-conflict-on-the-insurance-industry-part-one
- https://www.hdfcbank.com/personal/resources/learning-centre/digital-banking/what-is-digital-banking
- https://www.mastercardservices.com/en/advisors/archived-practices/digital-transformation/insights/digital-banking-innovations-and-trends

- https://www.angelone.in/blog/future-of-the-banking-and-insurance-industry
- https://content.naic.org/sites/default/files/naic_archive/cipr_study_150324_usage_based_insurance_and_vehicle_telematics_study_series.pdf
- https://economictimes.indiatimes.com/definition/investment-banking
- https://www.deloitte.com/au/en/Industries/financial-services/perspectives/bank-of-2030-future-of-investment-banking.html
- https://journals.sagepub.com/doi/epub/10.1177/09722661211005585
- https://www.hdfcbank.com/personal/about-us/overview/who-we-are#:~:text=About%20HDFC%20Bank&text=This%20was%20done%20as%20part,Commercial%20Bank%20in%20January%201995.
- https://www.hdfcbank.com/personal/about-us/overview/our-businesses
- https://www.macrotrends.net/stocks/charts/HDB/hdfc-bank/revenue#:~:text=HDFC%20Bank%20revenue%20for%20the%20twelve%20months%20ending%20September%2030,a%201.12%25%20increase%20from%202021.
- https://sbi.co.in/web/about-us/about-us#:~:text=Vision%20Mission%20Values-,Evolution%20Of%20SBI,Bengal%20(2%20January%201809).
- https://www.icicicareers.com/website/know-us/history-and-facts/2015/Dec/history.html#:~:text=History&text=In%201955%20ICICI%20was%20formed,a%20diversified%20financial%20services%20group.
- https://www.axisbank.com/media-centre#:~:text=The%20Bank%20was%20promoted%20in,)%2C%20National%20Insurance%20Company%20Ltd.
- https://appinventiv.com/blog/telematics-insurance/
- https://www.pwc.com/ng/en/assets/pdf/green-products-next-step-for-insurers.pdf
- https://www.iii.org/article/green-insurance
- https://www.investopedia.com/terms/r/retailbanking.asp’
- https://prod.ucwe.capgemini.com/wp-content/uploads/2023/01/Retail-Banking-Trends-Report-2023.pdf
- https://www.forbes.com/advisor/in/banking/what-is-retail-banking/
- https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/banking-and-capital-markets/ey-global-fintech-adoption-index.pdf
- https://www.pwc.com/gx/en/industries/financial-services/assets/pwc-global-fintech-report-2019.pdf
- https://www.forbes.com/advisor/banking/what-is-fintech/
- http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Insurance_Law_-_Regulations_in_India.pdf