In India, the policy approach to build a less-cash economy, while ensuring safe, secure, efficient and robust payment systems, has yielded phenomenal growth in digital transactions. Mobile wallets have literally made banking services available 'on tap' while digital-only banks have done away with the need for brick and mortar presence. Biometric authentication has made doing transactions much safer and more convenient than the conventional modes of payment. In addition, the use of Artificial Intelligence (AI) is generating a technological wave in the Fintech industry in the form of automated data analysis, chatbots and robo-advisers.

India ranks second in terms of FinTech adoption. The Unified Payments Interface (UPI), Bharat Bill Payment System (BBPS), Bharat QR and Aadhaar-enabled Payment System (AePS) are proving to be game-changers in digital payments, online payment platforms and fund transfers, driving efficiency gains in the financial sector. RBI is also examining the possibility of making NEFT available 24x7. RBI has implemented an Ombudsman Scheme for Digital Transactions to provide an economical and expeditious grievance redressal mechanism for strengthening consumer confidence in digital channels. According to the Report on Benchmarking India’s Payment Systems, India has a leading position in terms of several parameters pertaining to digital transaction, technology infrastructure, and payment and settlement laws and regulation. In addition, there exists vast potential for growth of digital transactions in India owing to low per capita quantum currently.

With a view to understanding the Indian payment ecosystem and its challenges, a High Level Committee on Deepening of Digital Payments constituted by RBI submitted its report in May 2019. It reviewed the level of digitisation and recommended ways to encourage its adoption. It also suggested means to strengthen security aspects of digital payment infrastructure and instil customer confidence in digital transactions.

There has been a consistent growth in individual segments of retail electronic payment systems and decline in paper-based transactions. Retail Electronic Clearing Services (RECS), comprising Electronic Clearing Service (ECS), Electronic Funds Transfer (EFT), National Electronic Funds Transfer (NEFT), Immediate Payment Service (IMPS) and National Automated Clearing House (NACH), witnessed overall transaction volume growth during 2018-19, similar to the previous year. Immediate Payment Service (IMPS) is an instant payment inter-bank electronic funds transfer system in India, enabling customers to operate through mobile phones. Unlike NEFT and RTGS, the service is available twenty-four hours and throughout the year including bank holidays. Since its launch in November 22, 2010, the IMPS has registered high growth momentum. Similar to the IMPS, UPI is an immediate money transfer system that enables round the clock interbank fund transfer, throughout the year. Since its commercial launch in August 2016, it has seen a mammoth rise in volumes by far exceeding the transactions done on the IMPS platform. Reflecting the impact of digitalisation, Cheque Truncation System (CTS) witnessed a negative growth while the volume of digital transactions using the mobile banking channel has witnessed sharp annual increases.

Source: www.rbi.org.in
Technology firms have grown rapidly over the last two decades. An essential by-product of their business is the large stock of user data utilised as input to offer a range of services that exploit natural network effects, generating further user activity. Increased user activity then completes the circle, as it generates yet more data.

Some big techs have ventured into financial services, including payments, money management, insurance and lending. As yet, financial services are only a small part of their business globally. But given their size and customer reach, big techs' entry into finance has the potential to spark rapid change in the industry. Big techs' low-cost structure business can easily be scaled up to provide basic financial services, especially in places where a large part of the population remains unbanked. Using big data and analysis of the network structure in their established platforms, big techs can assess the riskiness of borrowers, reducing the need for collateral to assure repayment. As such, big techs stand to enhance the efficiency of financial services provision, promote financial inclusion and allow associated gains in economic activity.

The activities of big techs in finance are a special case of broader fintech innovation. Fintech refers to technology-enabled innovation in financial services, including the resulting new business models, applications, processes and products. While fintech companies are set up to operate primarily in financial services, big tech firms offer financial services as part of a much wider set of activities. Payments were the first financial service big techs offered, mainly to help overcome the lack of trust between buyers and sellers on e-commerce platforms. Over time, bigtechs' payment services have become more widely used as an alternative to other electronic payment means such as credit and debit cards.

Big techs' payment platforms currently are of two distinct types. In the first type, the “overlay” system, users rely on existing third-party infrastructures, such as credit card or retail payment systems, to process and settle payments (e.g. ApplePay, Google Pay, PayPal). In the second, users can make payments which are processed and settled on a system proprietary to the big tech (e.g. Alipay, M-Pesa, WePay). While big techs' payment platforms compete with those provided by banks, they still largely depend on banks. In the first type, directly so; in the second, users require a bank account or a credit/debit card to channel money into and out of the network.

Some big techs use their wide customer network and brand name recognition to offer money market funds and insurance products on their platforms. On big tech payment platforms, customers often maintain a balance in their accounts. To put these funds to use, big techs offer money market funds (MMFs) as short-term investments. The MMF products offered are either managed by companies affiliated with the big tech firm or by third parties. By analysing their customers' investment and withdrawal patterns, big techs can closely manage the MMFs' liquidity. This allows them to offer users the possibility to invest (and withdraw) their funds almost instantaneously. Building on their e-commerce platforms, some big techs have ventured into lending, mainly to SMEs and consumers. Loans offered are typically credit lines or small loans with short maturity (up to one year). Despite its
substantial recent growth, total fintech credit still constitutes a very small proportion of overall credit.

Data analytics, network externalities and interwoven activities (“DNA”) constitute the key features of big techs’ business models. Financial services both benefit from and fuel the DNA feedback loop. Offering financial services can complement and reinforce big techs’ commercial activities. Big techs’ DNA can lower the barriers to provision of financial services by reducing information and transaction costs, and thereby enhance financial inclusion. However, these gains vary by financial service and could come with new risks and market failures.

The cost of enforcing loan repayments is an important component of total financial intermediation cost. Big techs can address these issues differently. When a borrower is closely integrated in an e-commerce platform, for example, it may be relatively easy for a big tech to deduct the (monthly) payments on a credit line from the borrower’s revenues that transit through its payment account. In contrast, banks may not be in the position to do so as the borrower can have accounts with other banks. Given network effects and high switching costs, big techs could also enforce loan repayments by the simple threat of a downgrade or an exclusion from their ecosystem if in default.

Big techs’ role in financial services brings efficiency gains and lowers barriers to the provision of financial services, but the very features that bring benefits also have the potential to generate new risks and costs associated with market power. Once a captive ecosystem is established, potential competitors have little scope to build rival platforms. Dominant platforms can consolidate their position by raising entry barriers. They can exploit their market power and network externalities to increase user switching costs or exclude potential competitors.

Another, newer type of risk is the anti competitive use of data. Given their scale and technology, big techs have the ability to collect massive amounts of data at near zero cost. This gives rise to “digital monopolies” or “data-opolies”. Once their dominant position in data is established, big techs can engage in price discrimination and extract rents. They may use their data not only to assess a potential borrower’s creditworthiness, but also to identify the highest rate the borrower would be willing to pay for a loan or the highest premium a client would pay for insurance.

Traditionally, financial regulation is aimed at ensuring the solvency of individual financial institutions and the soundness of the financial system as a whole. It also incorporates consumer protection goals. The policy instruments used to achieve these goals are well understood, ranging from capital and liquidity requirements in the case of banks to the regulation of conduct for consumer protection. When bigtechs’ activity falls squarely within the scope of traditional financial regulation, the same principles should apply to them. However, two additional features make the formulation of the policy response more challenging for big techs. First, big techs’ activity in finance may warrant a more comprehensive approach that encompasses not only financial regulation but also competition and data privacy objectives. Second, even when the policy goals are well articulated, the specific policy tools should actually be shown to promote those objectives.

In the face of the rapid and global digitisation of the economy, policymakers need institutional mechanisms to stay abreast of developments and to learn from and coordinate with each other. Some countries have set up innovation facilitators,
including hubs and accelerators, which provide a forum for knowledge-sharing, and may involve active collaboration or even funding for new players. Regulatory sandboxes (e.g. in Hong Kong, Singapore and the United Kingdom) let innovators test their products under regulatory oversight. Hubs, accelerators and sandboxes can help to ensure a dynamic financial landscape - one that is not necessarily dominated by just a few players. At the same time, their setup requires careful design and implementation, to avoid regulatory arbitrage and to not provide signs of support for new but still speculative projects.

Financial regulators focus on the specifics of the financial sector, whereas competition and data privacy laws often impose general standards that apply to a wide range of businesses. As the digital economy expands across borders, there is a need for international coordination of rules and standards (e.g. for data exchange). To prevent those differences from leading to conflicting actions, policymakers not only need a new compass but also need to find the right balance of public policy tools.

Source: www.bis.org
The latest annual economic report published by the Bank of International Settlements (BIS) speaks of uneven growth in the global economy, with services sector showing more resilience than its manufacturing counterpart. Although labour markets remain buoyant, trade and manufacturing might slow further. Deleveraging in emerging market economies (EMEs) and corporate stress might also act as drags on global growth. The report underlines the key point that monetary policy should be replaced by fiscal and prudential policy as sustainable drivers of growth.

Following a robust 2017, global growth slowed down considerably in 2018, pulled down by trade. Capital investment in Europe, China and other Asian EMEs slid downwards, and economies exhibited contractionary signals at the beginning of 2019. Consumption remained resilient though, with expansionary efforts by China boosting growth in the respective economy. Renewed trade tensions have again clouded the horizon though. Japan was impacted by slowing export growth and natural disasters, while key EMEs suffered from low private investment and a contraction in export orders. Turkey and Argentina experienced a currency crisis due to over dependence on foreign funding, which experienced liquidity tightening. Growth forecast was for 2019.

Major central banks eased their monetary stance as a reaction to tightening liquidity conditions, led by China and the US. Fall in oil prices corresponded with a decline in inflation around the world, also reflecting the absence of any significant labour cost pressure. Fall in US equity market was perceived to be due to expectations of monetary policy easing by the Fed, together with corporate profit uncertainty. Profits appeared to decline more at firms with direct or indirect links with China, as direct fallout of the trade conflict. Conditions eased however, after the Fed eased monetary policy stance in early 2019, before tightening again in May, on renewed trade tensions.

Apart from trade tension related uncertainty, weakening of the demand for electronic goods also slowed global growth, albeit temporarily. More significant impact was however dealt by the Chinese authorities’ efforts to contain leverage and rebalance the economic growth towards a consumption driven one. The resultant tightening impacted the global equity markets. Political uncertainty in a number of countries in Europe collectively raised uncertainty in the global financial markets as well. On the positive aspect, private consumption propelled by a buoyant labour market helped buttress global demand.

For the countries not at the heart of the global financial crisis (GFC), household debt reached historical highs, and house price growth has stalled in many. Worryingly, debt servicing ratio remained high in many EMEs, particularly in Asia, despite low interest rates. Some advanced economies (AEs) have begun to observe a price correction in residential housing as a result. This combined effect has begun to impact private consumption in these economies, which corroborate recent findings about a close correlation between the two variables.

Corporate leveraging has emerged as another area of concern. In the US, leveraging breached historic levels achieved in the early 2000s. Leveraging was high in Asia too, as global lending to leveraged firms reached a sizable amount. Issuance of corporate bonds with the lowest investment grade
ratings has increased significantly in both Europe and the US. A further drop in ratings could result into a market meltdown with widespread dumping of such securities. A tightening of liquidity conditions or higher inflation could also result in similar outcomes, with banks being impacted due to direct exposure to such loans. Such leveraged firms also crowd out private investment, and impact aggregate growth in an economy.

Bank profitability has also shrunk since the GFC. With low interest rates prevalent around the globe financing cheap liquidity, average profitability in AEs has declined since the mid-2000s. Challenges remain to increase profitability in the form of high operating costs, threat from fintech companies in competition to originate new loans, and stressed asset book, which prevent further lending. Monetary policy also faces a dilemma on the path to normalcy, as subdued inflation despite negative interest rates in some AEs, has posed a risk over anchoring inflation expectations. On the other hand, access to easy finance has led to financial vulnerabilities building up in the system.

Policy actions in such contrasting circumstances as unresponsive inflation towards an elongated low policy rate regime require a gradual approach towards policy normalization. Since price stability takes precedence, continuing with an accommodative policy would be a natural response, but such an action could also encourage excessive risk taking. A gradual approach can bring inflation expectations back towards target level and help assuage financial market volatility. In weaker economies, it can also counter liquidity problems and ensure financial stability. However, there are risks associated with a gradual approach too, in the form of threat to long term macroeconomic resilience and erosion of future policy manoeuvrability, primarily through financial channels. It may also undermine efficient resource allocation and productivity. All of the aforementioned reasons indicate that monetary policy cannot be the driver of sustainable economic growth, and should rather be a backstop procedure.

A more balanced policy mix can contribute to sustainable growth and financial stability. The only way to do so is through structural reforms, away from the debt-fuelled growth model the world has relied on so far. Trade tensions have cast a shadow over one such channel, multilateral trading system. Micro-prudential policies, particularly through the progress of Basel III have seen good progress so far, and macroprudential policies can further alleviate trade-offs, with tools such as stress testing, limits on debt-to-income ratios, countercyclical capital requirements etc. but these cannot remedy financial cycles on their own. Fiscal actions can also help, but has to steer clear of asymmetric policy making.

Source: www.bis.org
This article analyses the past forecast accuracy of the Indian monsoon by various agencies. At present, the official forecast of the South West Monsoon (SWM) is given by the India Meteorological Department (IMD), first in April - the First Stage Long Range Forecast (FSLRF) - and again in May/June -Second Stage Long-Range Forecast (SSLRF). Skymet, a private forecaster, releases its preliminary forecast in April and a revision in May. Apart from these Indian agencies, the forecasts of international meteorological organisations, viz., USA’s National Oceanic and Atmospheric Administration (NOAA) and Australia’s Bureau of Meteorology (BOM) on El Nino/La Nina and dipole conditions in the Pacific Ocean and Indian Ocean, respectively, are also used to predict the monsoon conditions in India.

The forecast accuracy of different agencies has been evaluated through Pearson’s Correlation Coefficient (PCC), Root Mean Square Error (RMSE), and success score of predicting extreme events. PCC and RMSE have been used to examine the forecast accuracy of IMD and Skymet as the predictions and actual values are reported as percentage of long period average (LPA). Success score has been used to assess the forecast accuracy of all the four agencies, as the predictions are reported in terms of probability of occurrence by BOM and NOAA. For PCC and RMSE, the period of study is from 1995 to 2018 in three distinct phases—Period 1 (1995 to 2002) with only FSLRF; Period 2 (2003 to 2012) with both FSLRF and SSLRF and Period 3 (2013 to 2018) with FSLRF, SSLRF and Skymet forecasts.

Initial correlation analysis reveals that none of the forecasts in any of the periods are significantly correlated with the actual rainfall data across the entire period of study to arrive at a conclusive inference. The RMSE results are similar. The IMD got predictions for near normal monsoons correct for 38 per cent of the time over the reference period, and Skymet also failed to forecast extreme events like droughts or floods.

The IMD also provides forecast for the distribution of rainfall. Data shows that the forecasts tend to over-project rainfall in the East and North East and Southern peninsula in 77 per cent and 50 per cent of the time, respectively. The forecasts have been correct for North West nearly 50 per cent of the time. International agencies NOAA and BOM have been relatively more successful in forecasting extreme rainfall years, which generally coincide with El Nino and La Nina conditions. This is corroborated by higher values of success score for international agencies compared to IMD and Skymet. In conclusion, the report suggests that for generating macroeconomic forecasts, the use of IMD’s SSLRF and the predictions of international agencies like NOAA and BOM in conjunction may be appropriate.

Source: www.rbi.org.in