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EMBARKING UPON DIGITAL CURRENCY

by Central Banks (CBDC)

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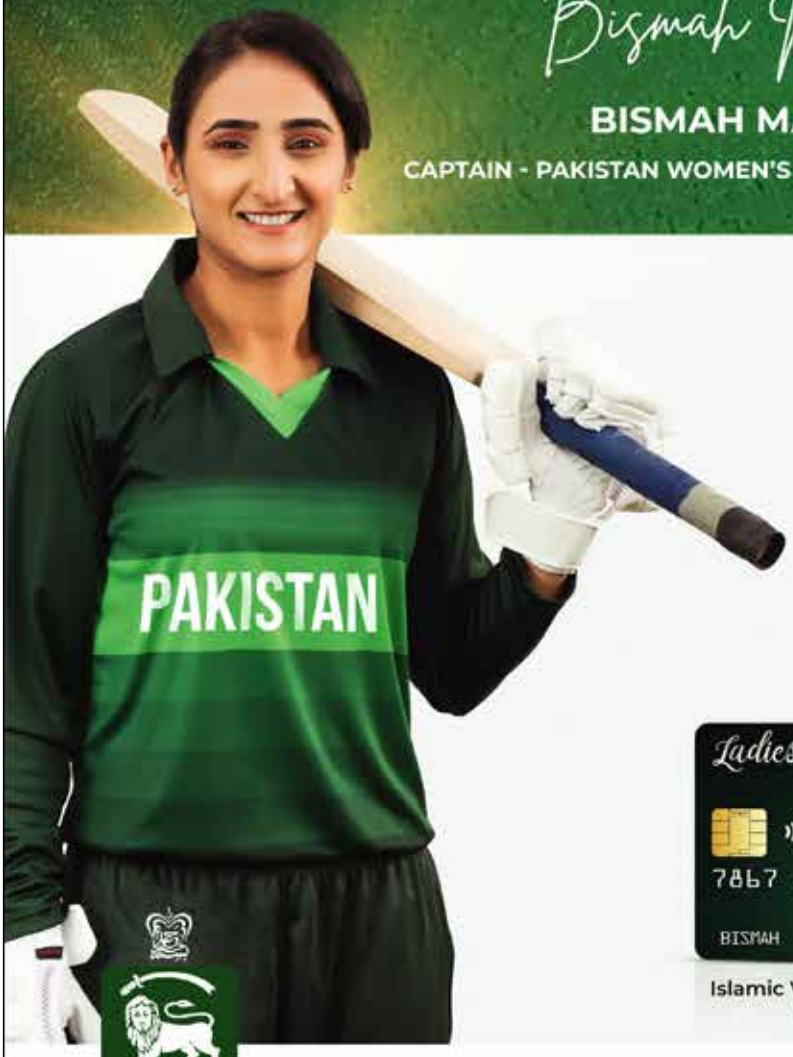

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STAY AHEAD

editorial.

Muhammad Mazherul Haq
Editor

Prioritizing the Priorities; a Prerequisite to Progress

"What should be done now? What to do then and what to do when?" are the critical concerns which continuously haunt people who assign due importance to time – a non-renewable resource as "lost time is never found again". Timely decisions pay the dividends, therefore the decision makers who make the right decisions at the right time become successful and popular leaders with fan-following reaching in millions.

Similar questions arise when it comes to making choices for utilizing the physical resources which are always scarce, individually, or collectively. It has been a daunting challenge to decide what and how the available resources should be exploited. Which one should be used first and what would be the next one to maximize the gains, i.e., the utility, if we talk about an individual; profitability, if we talk about a firm; and faster sustainable growth, if we focus on a country.

This time or next time, this resource or the other resource, hypothetically this struggle may continue till the objective is achieved. But in a real life scenario, the objective is to be achieved mostly in the first attempt, because the paucity of time and resources generally do not allow iterations. The objective and timeline(s) are given and evidently clear in almost all situations where the gain is to be maximized in minimum possible time with choices available to use time and resources for achieving different objectives, alternatively.

Making trade-offs among different alternatives and choosing the most suitable option to work upon is known as prioritizing skills, which make possible an efficient use of efforts (time and resources) to achieve the goals/ objectives and bring about smooth progression. Priorities once set, if not observed, make the situation difficult and reduce the capability to achieve the set objectives unless reprioritization is done among the limited choices available for the second iteration.

'Prioritizing the priorities' is, however, a pleasant experience if done at the first iteration by choosing the most appropriate combination, particularly if it relates to allocating time and resources. This approach allows a higher midway adjustment cushion if needed, without compromising the objectives. It is very well mentioned at mindtools.com that, "It is particularly important when time is limited, and demands are seemingly unlimited. With good prioritization (and careful management of reprioritized tasks) one can bring order to chaos, massively reduce stress, and move towards a successful conclusion. Without it, one will flounder around, drowning in competing demands." As "time and tide wait for none"—seize the moment to avail the best out of the opportunity.

Stephen Richards Covey (1932–2012), an American educator, author, businessman, and keynote speaker in one of his popular books *First Things First*, wrote that, "Putting first things first means organizing and executing around your most important priorities. It is living and being driven by the principles you value most, not by the agendas and forces surrounding you." He also mentioned that, "The key is not to prioritize what is on your schedule, but to schedule your priorities."

Efficient and timely use of productive resources at macroeconomic level have been witnessed highly effective for shifting the economies to the next level of growth. However, in some cases where there had been inconsistency in timely use of productive resources, developing countries were seen plunging into the category of under-developed countries. In fact, they miserably failed in 'prioritizing the priorities' to allocate their productive resources at the right time.

"Make hay while the sun shines", tells us about making the most of the opportunities. It gives the wisdom to set the priorities and reprioritize them in line with the changing situation i.e., to get something done when conditions are perfect. 'Prioritizing the priorities' seems simpler to follow but harsh to act upon, because it invites lot of discomfort and sacrifices to dislodge the status-quo. How the best use of time and resources could be made, all depends on acting upon the very common phrase that "don't leave for tomorrow what you can do today".

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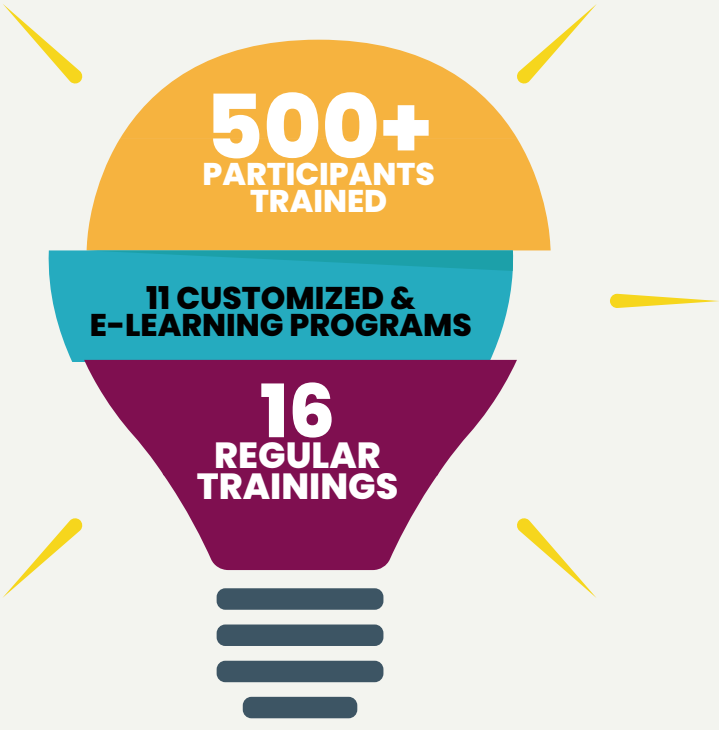
Training Roundup

January - March 2023

During the quarter January–March 2023, IBP conducted 16 Regular and 11 Customized trainings and e-Learning programs. More than 580 participants were trained during this period.

Significant topics of trainings included: Voice of Customer-Capturing, Assessing and Reengineering; Metaverse and NFTs-Future of Banking; The SBP Inspection Process; Compliance Risk Management & Internal Control; Prime Minister's Youth Business & Agriculture Loan Scheme (PMYB&ALS); Excel Power Pivot and DAX; and SBP Currency Management Guidelines & Penalty Structure for Banks.

The Institute has also conducted 2nd batch of Certified Information Systems Auditor (CISA)-Review Classes and Certified Information Security Manager (CISM)-Review Classes in collaboration with ISACA Karachi Chapter, in which 31 participants were trained. IBP successfully conducted 4th batch of Certification Course in AML/ CFT Compliance; 17 participants benefited from the program.



Assessments Update

During the quarter January–March 2023, IBP held its Winter 2022 Session of ISQ (IBP Superior Qualification) examinations, along with two assessments, two post-training assessments, one recruitment & one promotion test for its multiple clients. IBP also conducted ISQ Fast Track Program comprising of JAIBP Stage I & II for one of its major clients, in February 2023.

EMBARKING UPON DIGITAL CURENCY

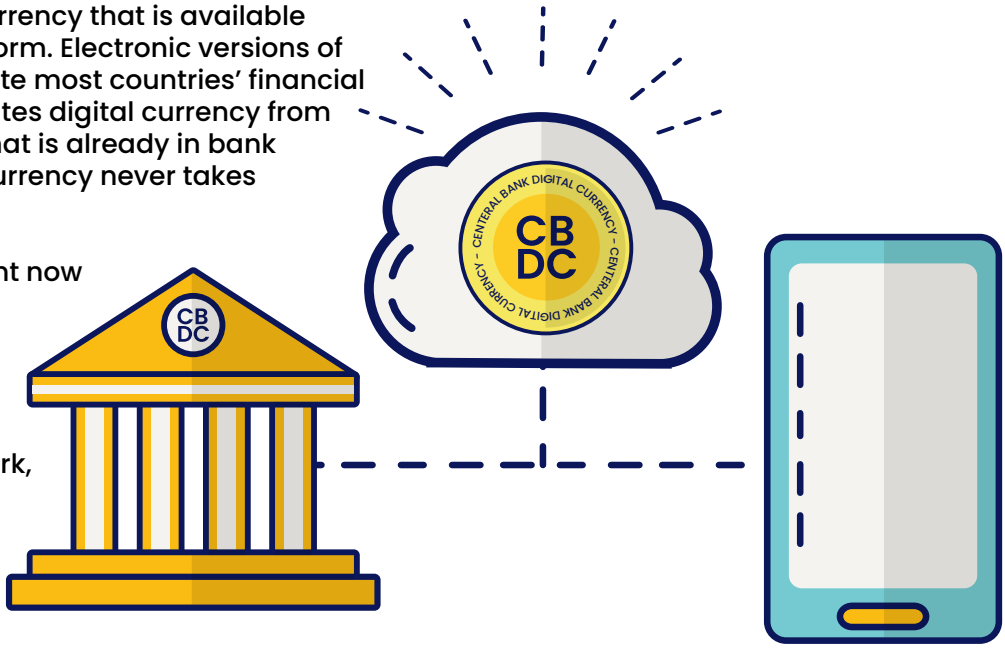
by Central Banks (CBDC)

Compiled by: Muhammad Mazherul Haq and Shahla Naqvi*

"Digital currency has the potential to completely change how society thinks about money. The rise of Bitcoin (BTC), Ethereum (ETH) and thousands of other cryptocurrencies that exist only in electronic form has led global central banks to research how national digital currencies might work.

Digital currency is any currency that is available exclusively in electronic form. Electronic versions of currency already dominate most countries' financial systems. What differentiates digital currency from the electronic currency that is already in bank accounts is that digital currency never takes physical form.

You can go to an ATM right now and easily transform the electronic record of your currency holdings into physical currency. Digital currency, however, never leaves a computer network, and it is exchanged exclusively via digital means."



There are three main varieties of digital currency: cryptocurrency, stablecoins-cryptocurrency, and central bank digital currency, known as CBDCs.

Cryptocurrency

Cryptocurrency, or crypto is a digital currency designed to work as a medium of exchange through a computer network that is not reliant on any central authority, such as a government or bank, to uphold or maintain it. It is a decentralized system for verifying that the parties to a transaction have the money they claim to have, eliminating the need for traditional intermediaries, such as banks, when funds are being transferred between two entities.

Individual coin ownership records are stored in a digital ledger, which is a computerized database using strong cryptography to secure transaction records, control the creation of additional coins, and verify the transfer of coin ownership. Despite their name, cryptocurrencies are not considered to be currencies in the traditional sense, and while varying treatments have been applied to them, including classification as commodities, securities, and currencies, cryptocurrencies are generally viewed as a distinct asset class in practice. Some crypto schemes use validators to maintain the cryptocurrency. In a proof-of-stake model, owners put up their tokens as collateral. In return, they get authority over the token in proportion to the amount they stake. Generally, these token stakers get additional ownership in the token over time via network fees, newly minted tokens, or other such reward mechanisms.

Cryptocurrency does not exist in physical form (like paper money) and is typically not issued by a central authority. Cryptocurrencies typically use decentralized control as opposed to a central bank digital currency (CBDC). When a cryptocurrency is minted, or created prior to issuance, or issued by a single issuer, it is generally considered centralized. When implemented with decentralized control, each cryptocurrency works through *Distributed Ledger Technology (DTL)*, typically a Blockchain, that serves as a public financial transaction database. Traditional asset classes like currencies, commodities, and stocks, as well as macroeconomic factors, have modest exposures to cryptocurrency returns.

The first decentralized cryptocurrency was Bitcoin, which was first released as open-source software in 2009. As of March 2022, there were more than 9,000 other cryptocurrencies in the marketplace, of which more than 70 had a market capitalization exceeding $1 billion.

Stablecoin

A stablecoin is a type of cryptocurrency where the value of the digital asset is supposed to be pegged to a reference asset, which is either fiat money, exchange-traded commodities (such as precious metals or industrial metals), or another cryptocurrency.

In theory, backing by a reference asset could make a stablecoin value track the value of the peg and not be subject to the radical changes in value that are common in the market for many digital assets. In

practice, however, stablecoin issuers have not been proven to maintain adequate reserves to support a stable value.

Stablecoins have a number of purported purposes. They can theoretically be used for payments and are in theory more likely to retain their value than cryptocurrencies which are highly volatile. In practice, many stablecoins have failed to retain their "stable" value.

Stablecoins are typically non-interest bearing, and therefore do not provide interest returns to the holder.

CENTRAL BANK DIGITAL CURRENCY (CBDC)

A CBDC is a digital form of central bank money that will, going forward, be widely available to the general public and business entities including governments for making retail and wholesale payments electronically. In the present scenario, the best use case of digital currency is the online payments the people make out of their bank accounts for purchasing goods and services, paying utility bills, realizing Person to Person (P2P) and Person to Government (P2G) payments, etc.

In its evolving stage the CBDC would be a kinds of fiat money appearing on the liability side of the central bank's balance sheet. The CBDC would be denominated in standard currency, just like hard currency and its value would be stable, just like banknotes, as the central bank will be controlling the demand and supply measures, much like regular currency in the form of coins and banknotes, which makes the prospect more attractive to the masses.

The central banks, on behalf of the governments, in fact enjoy the sole authority to add to the existing stock of money which is usually done keeping in view the real sector growth and inflation target set for the economy, apart from converting net foreign assets component of money supply into local currency.

With no fundamental change in the methodology of money creation/ supply, the CBDC would be a new type of money issued by the central bank for everyone to use for day-to-day spending and would be able to use it in-store or online to make payments. In this respect, it is analogous to a digital form of paper money. It would not replace cash, but will be complementary to it.

Often confused with digital currency, it is important to mention here that CBDC would not be a cryptocurrency or cryptoasset. As opposed to cryptocurrencies, which are issued privately, the CBDC would be issued by the central bank and be backed by the government.

Benefits of Digital Currency

Faster payments: Using digital currency, you can complete payments much faster than current means,

Blockchain & Distributed Ledger Technology (DLT)

Blockchain is one type of a distributed ledger. Distributed ledgers use independent computers (referred to as nodes) to record, share and synchronize transactions in their respective electronic ledgers (instead of keeping data centralized as in a traditional ledger). Blockchain organizes data into blocks, which are chained together in an append only mode.

Blockchain/ DLT are the building blocks of "internet of value," and enable recording of interactions and transfer "value" peer-to-peer, without a need for a centrally coordinating entity. "Value" refers to any record of ownership of asset – for example, money, securities, land titles – and ownership of specific information like identity, health information and other personal data.

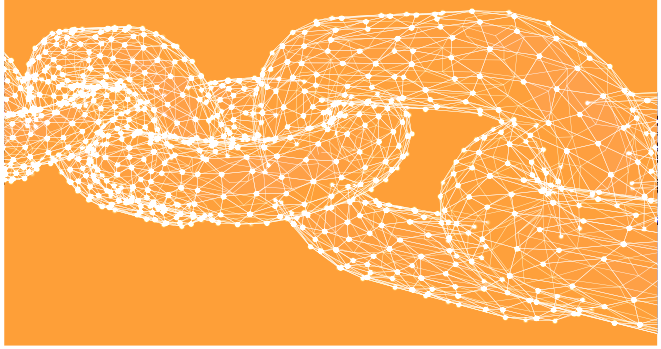
Distributed ledger technology (DLT) could fundamentally change the financial sector, making it more efficient, resilient and reliable. This could address persistent challenges in the financial sector and change roles of financial sector stakeholders. DLT has the potential to transform various other sectors as well, like manufacturing, government financial management systems and clean energy.

Eventually, DLT could increase efficiency and lower remittance costs, and potentially improve access to finance for unbanked populations, who are currently outside the traditional financial system.

Source:

Messages based on WBG's fintech note on Distributed Ledger Technology and Blockchain, published December 2017. (Last Updated: Apr 12, 2018)

https://www.worldbank.org/en/topic/financialsector/brief/blockchain-dlt



like ACH or wire transfers, which can take days for financial institutions to confirm a transaction.

Cheaper international transfers: International currency transactions are very expensive. Individuals are charged high fees to move funds from one country to another, especially when it involves currency conversions. Digital assets could disrupt this market by making it faster and less costly.

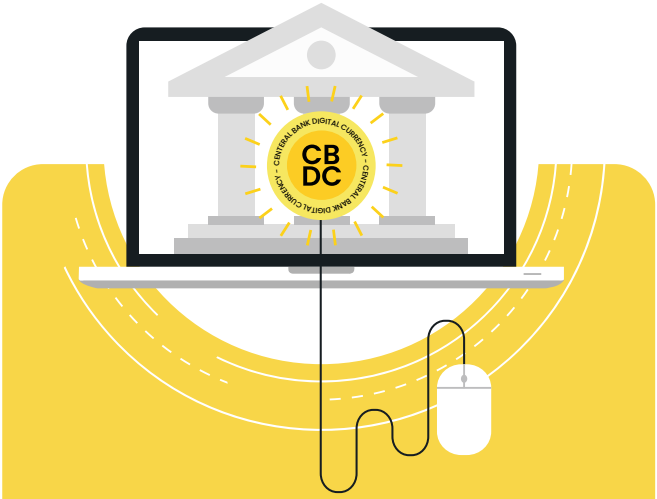
24/7 access: Existing money transfers often take more time during weekends and outside normal business hours because banks are closed and cannot confirm transactions. With digital currency, transactions work at the same speed 24 hours a day, seven days a week.

Support for the unbanked and underbanked: More than 7 million American households do not have a bank account, according to the FDIC in a 2019 survey. They end up paying costly fees to cash their paychecks and send payments to others through money orders or remittances. If the country launched a CBDC, unbanked individuals could access their money and pay their bills without extra charges.

More efficient government payments: If the government developed a CBDC, it could send payments like tax refunds, child benefits and food stamps to people instantly, rather than trying to mail them a check or figure out prepaid debit cards.

Disadvantages of Digital Currency

Too many options: The current popularity of cryptocurrency is a downside. "There are so many



Central bank digital currency (CBDC):

A new form of central bank money (see below) in a digital format, denominated in the national unit of account, that is a direct liability of the central bank and can be used for retail payments and/or wholesale settlement.

Central bank money:

A liability of a central bank which can be used for settlement purposes. The widespread use of central bank money for large and critical settlements is pivotal to the functioning of the global financial system, offering safety, availability, efficiency, neutrality and finality.

Source: https://www.bis.org/publ/othp52.pdf

Bank for International Settlement (BIS) in one of its reports mentioned that:

BIS

Interest in Central Bank Digital Currency (CBDC) has grown in response to changes in payments, finance and technology, as well as the disruption caused by Covid-19. A 2021 BIS survey of central banks found that 86% are actively researching the potential for CBDCs, 60% were experimenting with the technology and 14% were deploying pilot projects.

In simple terms, a central bank digital currency (CBDC) would be a digital banknote. It could be used by individuals to pay businesses, shops or each other (a "retail CBDC"), or between financial institutions to settle trades in financial markets (a "wholesale CBDC").

Central banks are exploring whether CBDC could help them to achieve their public good objectives, such as safeguarding public trust in money, maintaining price stability and ensuring safe and resilient payment systems and infrastructure.

If successful, CBDCs could ensure that, as economies go digital, the general public would retain access to the safest form of money - a claim on a central bank. This could promote diversity in payment options, make cross-border payments faster and cheaper, increase financial inclusion and possibly facilitate fiscal transfers in times of economic crisis (such as a pandemic).

Source: https://www.bis.org/about/bisih/topics/cbdc.htm

DIGITAL CURRENCIES Vs. CRYPTOCURRENCIES
THE MAIN DIFFERENCES

Though cryptocurrencies are a variant of digital currencies, there are some key differences between the two.

DIGITAL CURRENCIES VS CRYPTOCURRENCIES

1	**Digital currency is centralized,** meaning that transaction within the network is regulated in a centralized location, like a central bank.	**Cryptocurrencies are mostly decentralized**, and the regulations inside the network are governed by the majority of the community.
2	Digital currency refers to any currency that **exists online**.	Cryptocurrency refers to currency held as a **record on a blockchain database**.
3	If traditional currency is held in digital form, the Revenue **Authority taxes it as money and income.**	If anyone holds cryptocurrency or other purely digital assets, the Revenue **Authorities taxes it as property.**
4	**Digital currencies are not transparent**. With digital currencies, you cannot choose the address of the wallet and see all money transfers since the beginning of time. This information is kept strictly confidential and private.	**Most cryptocurrencies are transparent**. Anyone and everyone is able to see any and all transactions made and received by any user, as all revenue streams are placed in a public chain – the blockchain.
5	**Digital currencies have a central authority** that can deal with any problems or issues. This central body can, for example, freeze or cancel transactions on the request of the participant or the authorities.	Cryptocurrencies (in the case of decentralized ones) are **regulated by their respective communities.**
6	Most countries have **some legal framework** surrounding digital currencies, for example, the EU's Directive 2009/110/EC; and the US Article 4A of the Uniform Commercial Code.	Right now, the same cannot be said about cryptocurrencies. In most countries, their **official status is not defined.**
7	**Digital Currencies rates are stable** and those are acceptable globally.	**Cryptocurrency currencies rates are highly volatile** and are widely acceptable across the globe.

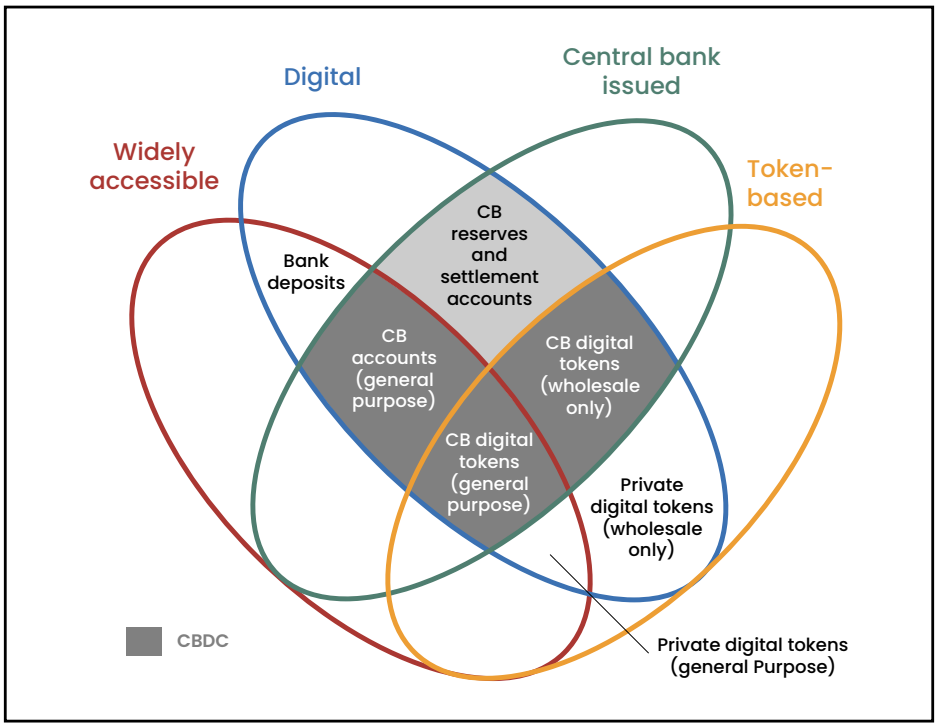


Figure 1: Money flower from BIS report on Central Bank Cryptocurrencies. Source: [Beck, 2017]

digital currencies being created across different blockchains that all have their own limitations. It will take time to determine which digital currencies may be appropriate for certain use cases, including whether some are designed to scale for mass adoption," says Lilya Tessler, head of Sidley's FinTech and Blockchain group.

Steep learning curve: Digital currencies require work on the part of the user to learn how to perform fundamental tasks, like how to open a digital wallet and properly store digital assets securely. The system needs to get simpler for digital currencies to be more widely adopted.

Expensive transaction: Cryptocurrencies use blockchain, where computers must solve complex equations to verify and record transactions. This takes considerable electricity and gets more expensive as there are more transactions. However, this would probably not exist for CBDC since the central bank would likely control it and complex consensus processes are not needed.

Price volatility: Cryptocurrency prices and values can change suddenly. This is why businesses are reluctant to use it as a medium of exchange. "As a business, do I want to accept something volatile? What if I hold a Bitcoin for a week and it loses 20% of its value?" With CBDC, though, the value is much stabler, like paper currency, and cannot fluctuate like this.

Slow progress: A US CBDC is still hypothetical, and if the government decides to create one, there will be costs associated with its development.

Defining Central Bank Digital Currency (CBDC)

It is important to first define what a CBDC is – and what it is not. In classifying money, the Bank of International Settlements (BIS) established a framework or taxonomy of money that, whilst based on a Venn diagram, is colloquially called the "Money Flower" [Beck, 2017].

The Money Flower describes four key properties of money: the issuer, the form, the accessibility and the technology. The issuer refers to who has issued the money. It could be the central bank or, in the case of cryptocurrencies or other forms of tokenized value, it could be some private sector entity such as a commercial bank or a firm.

In the context of CBDC, we are, of course, referring to central bank-issued forms of money. The form is the physical form that the money takes. It could be physical, in the case of cash, or it could be digital, such as reserve accounts or bank deposits. The accessibility refers to who is able to access the particular form of money and this represents an important bifurcation. Some money is accessible only to the central bank and a select number of commercial banks whereas other forms of money, like cash or bank deposits, is available to a broad section of the population and hence is considered generally accessible.

In the context of CBDCs, we therefore distinguish similarly between those that are available to the general public (known as retail CBDCs or generally available CBDCs) versus those that are only available to a select number of parties or wholesale CBDCs.

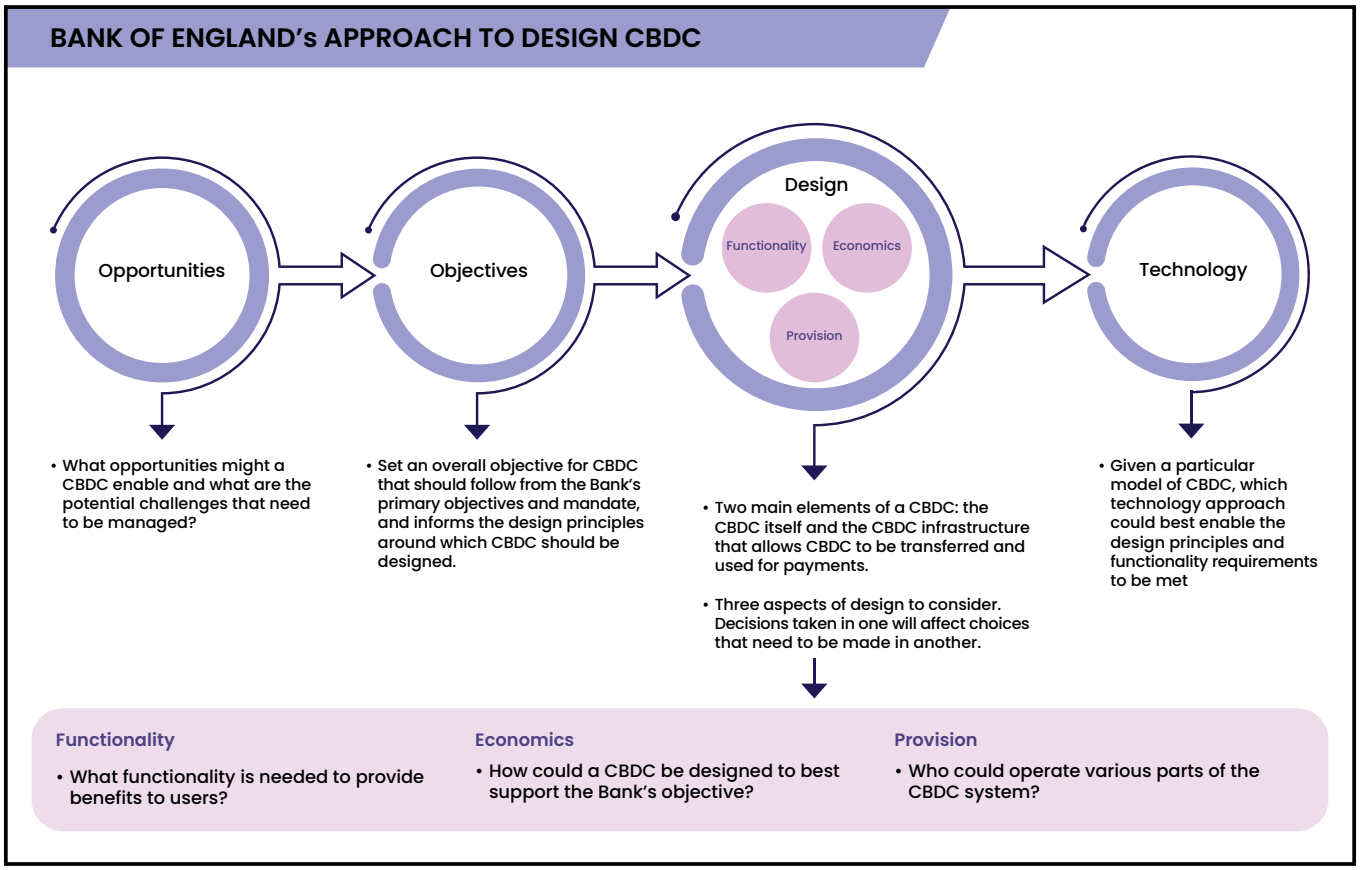


Figure 2BoE's approach to potential CBDC design | Source: https://www.bankofengland.co.uk/-/media/boe/files/paper/2020/central-bank-digital-currency-opportunities-challenges-and-design

The final property of money relates to the technology. There are some forms of digital money that are token-based and some that are account-based. The key distinguishing factor is that token-based approaches represent money as a set of tokens that are held by their owner (similar, in many respects, to physical cash) and can sometimes be bearer instruments (also similar to cash). Account-based approaches hold balances in accounts like a bank account and therefore do not have similar characteristics such as cash but more closely resemble bank accounts. Retail CBDCs that seek to simulate or replace cash have tended towards token-based approaches or a hybrid, whereas wholesale CBDCs have tended to use account-based approaches.

There have been numerous papers written by central banks exploring the different practical and theoretical aspects of both wholesale and retail CBDCs. In the case of retail CBDCs, whilst there is a recognition of the role they can play as an alternative to cash in societies where cash use is declining, such as Sweden, there are significant risks that have been raised by multiple central banks around, for example, the disintermediating impact on the banking system if the general public gets access to central bank money and the risk that such access could introduce in facilitating "bank runs" at times of stress in the banking system. As such, most central banks have focused instead on exploring wholesale CBDC use cases.

Growth Prospects of CBDC

When sponsored by central banks of the countries across the globe with mutual understanding and agreeing upon some basic principles, there remain no doubts about the rapid growth of central bank digital currency as fiat money, just like the banknotes and coins. Since the central banks enjoy the elements of unconditional trust and respect of the masses, no one would question the authenticity of the CBDC and people will willingly accept this new intervention because, by default, it serves all functions of conventional money, in addition to providing speed and accuracy in the financial transactions.

While central banks in a number of countries are taking interest in developing and promoting the CBDC, a clearer perception may be formed on the changes going to take place in the transformation of physical currency into virtual currency by looking into the Bank of England's efforts on promoting the CBDC.

Bank of England's Digital Pound or 'Britcoin'

The digital pound would be a new type of money issued by the Bank of England (BoE) for everyone to use for day-to-day spending. You may also hear it being called 'digital sterling' or even 'Britcoin'. The UK version of CBDC is called the digital pound. It may be used in-store or online to make payments. The digital pound would be denominated in sterling and its value would be stable, just like banknotes. £10 in digital

OPPORTUNITIES FOR CBDC TO SUPPORT MONETARY AND FINANCIAL STABILITY

There are a number of ways in which CBDC could support the BoE's objectives to maintain monetary and financial stability, through the provision of a new form of money and a new payments infrastructure. These are summarized below.

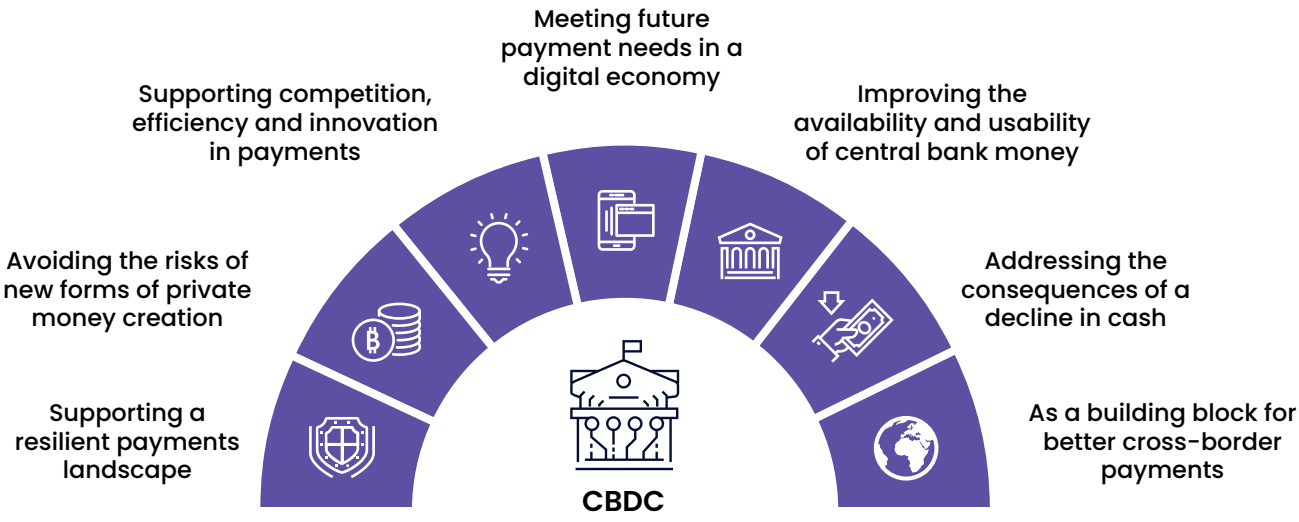


Figure 3 Opportunities for CBDC to support monetary and financial stability | Source: https://www.bankofengland.co.uk/-/media/boe/files/paper/2020/central-bank-digital-currency-opportunities-challenges-and-design

pounds would always have the same value as a £10 banknote.

If introduced, it would not replace cash as being able to use cash is important for many people. That is why the bank will continue to issue it for as long as people want to keep using it.

Key points

- At the moment, the public can hold central bank money in the form of banknotes, but only banks and certain other financial institutions can hold electronic central bank money, in the form of central bank reserves. A Central Bank Digital Currency (CBDC) would be an electronic form of central bank money that could be more widely used by households and businesses to make payments and store value. CBDC is sometimes thought of as equivalent to a digital banknote, although in practice it may have other features that will depend on its final design.
- The Bank of England's (BoE's) primary objectives are to maintain monetary and financial stability. CBDC should be designed in a way that supports those objectives.
- To develop the illustrative model of CBDC, its economic characteristics (as a new form of central bank money), the functionality and technology used to power a CBDC payment system, and the possible roles of the central bank and private sector in providing parts of the CBDC ecosystem have been considered.
- CBDC would provide both a new form of central bank money, and a new payments infrastructure. So it is important to consider how CBDC fits into the wider payments landscape, and how it interacts with and complements other initiatives to improve payments.
- CBDC offers a number of opportunities for the way that the Bank of England achieves its objectives of maintaining monetary and financial stability.
- CBDC could increase the availability and usability of central bank money, helping to support monetary policy and financial stability, and could help to avoid the risks of new forms of private money creation, such as stablecoins. It could support a resilient, innovative and competitive payments landscape, helping to meet future payments needs. It could also help to address the consequences of a decline in the use of cash. Finally, a domestic CBDC could be a means to deliver better cross-border payments in the future.
- Each of these opportunities also comes with implications and challenges that would need to be carefully considered. Depending on its design, CBDC could impact the structure of the banking system and the way that the bank achieves its objectives.

Opportunities for CBDC to Support Monetary and Financial Stability

There are a number of ways in which CBDC could support the BoE's objectives to maintain monetary and financial stability, through the provision of a new form of money and a new payments infrastructure. These are summarized below and illustrated in figure 3.

Objectives and Design Principles

- Any CBDC payment system would need to be designed with a clear use case in mind. At present the focus is on domestic retail payments — payments that involve households and/ or small or medium sized businesses, in sterling, within the UK. Work is taking place elsewhere to address wholesale and cross-border payments.

- The overall objective for CBDC payments is that households and businesses should be able to make fast, efficient and reliable payments, and benefit from a resilient, inclusive, innovative, and competitive payment system. This overall objective sets the design principles, which in turn determine the choices around economic design, functionality, provision and technology.

- An approach to CBDC where the Bank of England does everything, with no private sector involvement, is unlikely to meet most of our design principles. Such a CBDC may be resilient, fast and reliable. But it would not be open to competition, may not support innovation, and would not be designed around the respective strengths of the BoE and private sector. For this reason, and in order to more likely meet these principles, a model which has both central bank and private sector involvement shall be considered.

The Future of Digital Currencies

Known as the future of money the growth and innovative uses of digital currencies now mostly hinge upon the treatment given to it by the central banks and the degree of consensus developed among them for facilitating cross-border payments. While technology is ready to accept all operational challenges and people have shown their willingness to accept it as a money, the only missing block left is the regulatory framework which could maintain sanctity of money without creating any chaos.

Speaking at the occasion of Atlantic Council meeting on February 09, 2022 held at Washington, USA, IMF Managing Director Kristalina Georgieva said, "If CBDCs are designed prudently, they can potentially offer more resilience, more safety, greater availability, and lower costs than private forms of digital money. That is clearly the case when compared to unbacked crypto assets that are inherently volatile. And even the better managed and regulated stablecoins may not be quite a match against a stable and well-designed central bank digital currency".

She further said, "We know that the move towards CBDCs is gaining momentum, driven by the ingenuity of Central Banks. All told, around 100 countries are exploring CBDCs at one level or another. Some researching, some testing, and a few already distributing CBDC to the public".

The former Governor, State Bank of Pakistan, Reza Baqir while delivering a speech at Riyadh, Saudi Arabia on the topic 'The Rise of Digital Currencies and the Road Ahead' on February 06, 2022, concluded that, "...finally, we need to think of ourselves as enablers, and many times as promoters. It is not just sufficient to create a regulatory framework that addresses some new development and stand back. We need to engage proactively with our key stakeholders in the rapidly evolving digital space and push and promote our vision of our financial sector. And that, in fact, is why I am here with you today". ■

**Muhammad Mazherul Haq and Shahla Naqvi are engaged at IBP's Publications & Communication Department as Head and Senior Manager, respectively.*

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Digital Banking Trends Now and Beyond

Digital banking trends refer to the ways in which the banking industry is evolving and adapting to new technologies, particularly in the realm of online and mobile banking. These trends can include the adoption of new digital payment methods, the use of artificial intelligence and chatbots in customer service, the growth of digital lending platforms, and the increasing importance of cybersecurity. Digital banking trends can also involve the use of data analytics and machine learning to provide more personalized and convenient banking experiences for customers.

By: Rahim Zulfiqar Ali

Overall, digital banking trends reflect the shift towards a more digitized and connected banking industry, as banks seek to better meet the needs and preferences of their customers in an increasingly digital world. An American blogger Jennifer Gustavson* has very rightly said "While the primary functions of banks and their customers' needs have gone mostly unchanged since the late 1700s, *how* banks provide those services has changed dramatically — especially in recent years. With the ongoing shift toward digital and data, online banking still has a huge opportunity for growth and expansion."

In Pakistan, the digital financial journey started with the announcement of Electronic Transaction Ordinance, 2002 which facilitated the initiation of Touchpoint and Channel where customers had multiple options of financial services like the POS and ATM. Later on, the promulgation of Payment Systems and Electronic Fund Transfer Act, 2007 gave boost to institutionalizing the electronic payments system in the presence of an enabling legislative framework. In 2008, PRISM, Pakistan's First Real Time Gross Settlement system (RTGS) was established, followed by another breakthrough of launching of the Branchless Banking intervention by the State Bank of Pakistan (SBP). Rules and regulations for establishing Payment Systems Operators (PSOs) and Payment Systems Providers was announced in 2012 by SBP with a view to help in developing an environment for efficient, convenient and secure processing of payment transactions.

Moreover, in order to foster innovation in the payments industry and promote financial inclusion in the country, in 2019 the SBP allowed private sector to establish Electronic Money Institutions (EMIs) for providing e-wallet services to customers including the merchants. In the same year, National Payment Systems Strategy was launched by SBP to pave the way forward for rapid growth in the digital financial services. Pakistan's first and very own instant payment system RAAST bulk transfer was launched in 2021, followed by the issue of "Customers' Digital Onboarding Framework" for opening of bank accounts digitally by Resident Pakistanis. In 2022, SBP rolled out licensing and regulatory framework for digital banks and later on issued NOC to five applicants to open digital banks in 2023.

Role of Digital Banking

Digital banking trends play a significant role in shaping the future of the banking industry. These trends can help banks to better serve their customers by providing more convenient and efficient ways to access financial services, such as through mobile banking apps and online banking portals. Digital banking trends can also help banks to better understand their customers' needs and preferences using data analytics and machine learning, and to offer more personalized banking experiences. In addition, digital banking trends can help banks to innovate and stay competitive in a rapidly changing market by adopting new technologies, such as artificial intelligence and chatbots, and by offering new digital financial products and services. Overall, digital banking trends are an important factor in determining how the banking industry will evolve and adapt to the digital age.

Emerging Digital Banking Trends

Following are the emerging digital banking trends by 2023 and beyond:

Trend 1

Anticipate Queries with Personalized, Interactive Solutions

Anticipating queries with personalized, interactive solutions involves proactively addressing potential questions or problems that customers might have and providing tailored and engaging responses that help to resolve their issues. This can be done through a variety of means, such as chatbots, interactive FAQ pages, or personalized email or phone support. By anticipating queries and providing personalized, interactive solutions, businesses can improve the customer experience, build trust and loyalty, and ultimately drive higher levels of customer satisfaction.

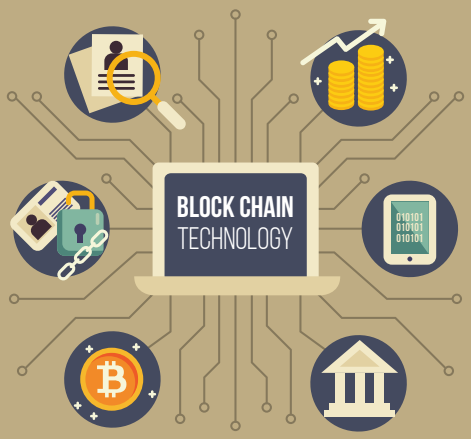
*Source: https://www.notarize.com/blog/the-latest-trends-in-digital-banking

Trend 2

Blockchain in Banking System

The role of blockchain technology in the banking sector is multifaceted and evolving. Some potential applications of blockchain in banking include:

1. Payment processing: Blockchain technology can be used to facilitate fast, secure, and low-cost cross-border payments, reducing the need for intermediaries and lowering fees.
2. Trade finance: Blockchain can be used to digitize and automate trade finance processes, reducing the risk of fraud and improving efficiency.
3. Identity verification: Blockchain can be used to verify identities and prevent identity fraud, enabling banks to onboard new customers more efficiently and securely.
4. Asset tracking: Blockchain can be used to track and verify the ownership of assets, such as real estate, cars, or artwork, improving transparency and reducing the risk of fraud.
5. Settlement and clearing: Blockchain can be used to settle and clear financial transactions more quickly and efficiently, reducing the need for manual reconciliation and minimizing the risk of errors.
6. Supply chain finance: Blockchain can be used to improve the transparency and efficiency of supply chain finance processes, enabling banks to better manage risks and improve cash flow.

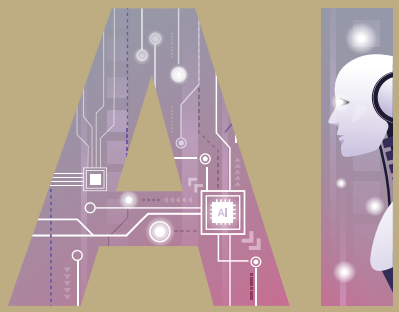


Trend 3

The Use of Artificial intelligence (AI) and Chatbots

Artificial intelligence (AI) and chatbots can play several roles in banks. Some potential applications of AI and chatbots in the banking industry include:

1. Customer service: Chatbots can be used to handle customer inquiries and provide quick, accurate responses, freeing up human customer service representatives to handle more complex tasks. AI can also be used to analyze customer interactions and provide more personalized recommendations and support.
2. Fraud detection: AI can be used to analyze transaction data and identify patterns that may indicate fraudulent activity, helping banks to detect and prevent fraud more effectively.
3. Risk assessment: AI can be used to analyze data on potential borrowers and provide risk assessments, helping banks to make more informed lending decisions and reduce the risk of defaults.
4. Wealth management: AI can be used to provide personalized investment recommendations and portfolio management services, enabling banks to offer more customized wealth management solutions to their customers.
5. Process automation: AI and chatbots can be used to automate routine tasks and processes, such as account opening and account maintenance, freeing up human employees to focus on more complex tasks.



Trend 4

The Rise of NeoBanks

A neobank, also known as a digital-only bank or online-only bank, is a bank that operates exclusively online and does not have any physical branches. Neobanks offer a range of banking services, such as checking accounts, debit cards, and mobile payments, through a mobile app or website.

The rise of neobanks has been driven by several factors, including:

1. The increasing popularity of online and mobile banking: As more and more people become comfortable with using their smartphones for financial transactions, the demand for digital-only banking options has increased.

2. The desire for more convenient and flexible banking experiences: Neobanks often offer more convenient and flexible banking experiences, such as the ability to open accounts and access financial services from anywhere with an internet connection.

3. The desire for lower fees and better interest rates: Many neobanks offer lower fees and better interest rates than traditional banks, making them an attractive option for consumers looking to save money.

4. The emergence of new technology: The development of new technologies, such as artificial intelligence and chatbots, has made it possible for neobanks to provide high-quality customer service without the need for physical branches.

Trend 5

The Growth in Digital Lending

Digital lending refers to the use of online platforms and technologies to facilitate the borrowing and lending of money. In the banking industry, digital lending can involve the use of online platforms to allow borrowers to apply for loans and receive funding without visiting a physical bank branch.

The growth of digital lending for banks has been driven by several factors, including:

1. The increasing popularity of online and mobile banking: As more and more people become comfortable with using their smartphones for financial transactions, the demand for digital lending options has increased.

2. The desire for more convenient and flexible lending experiences: Digital lending platforms often offer more convenient and flexible lending experiences, such as the ability to apply for loans and receive funding from anywhere with an internet connection.

3. The emergence of new technology: The development of new technologies, such as artificial intelligence and machine learning, has made it possible for banks to underwrite loans and assess risk more efficiently, enabling them to offer more competitive rates and terms through digital lending platforms.

4. The need for faster loan processing times: Digital lending platforms can often provide faster loan processing times than traditional banks, as they are able to automate many of the manual processes involved in loan origination and underwriting.

Trend 6

Opportunity for Metaverse in Banks

The metaverse, also known as the virtual world or the internet of places, refers to a shared, virtual space where people can interact with each other and with digital objects in real-time. In the context of banking, the metaverse could offer several opportunities, such as:

1. Virtual branch banking: Banks could use the metaverse to offer virtual branch banking services, allowing customers to visit virtual branches and conduct transactions, such as opening accounts or applying for loans, from anywhere with an internet connection.
2. Virtual financial planning and advice: Banks could use the metaverse to offer virtual financial planning and advice sessions, allowing customers to receive personalized financial recommendations from financial advisors in a virtual setting.
3. Virtual events and education: Banks could use the metaverse to host virtual events and educational sessions, allowing customers to learn about financial topics and products in a more interactive and immersive way.
4. Virtual product demonstrations and trials: Banks could use the metaverse to offer virtual product demonstrations and trials, allowing customers to experience and test out financial products and services before making a purchase.

Trend 7

No-code/ Low-code Platforms Enabling Faster Banking Service

No-code/ low-code platforms are software platforms that allow users to create and customize applications and services without the need for coding skills. In the context of banking, no-code/ low-code platforms could be used to enable faster and more efficient banking services in several ways, such as:

1. Rapid prototyping and development: No-code/ low-code platforms can be used to quickly prototype and develop new banking products and services, allowing banks to respond more quickly to changing market conditions and customer needs.
2. Process automation: No-code/ low-code platforms can be used to automate routine tasks and processes, such as account opening and account maintenance, freeing up human employees to focus on more complex tasks.
3. Customization and integration: No-code/ low-code platforms can be used to customize and integrate banking systems and applications, enabling banks to more easily tailor their systems to meet the specific needs of their customers.
4. Cost savings: No-code/ low-code platforms can help banks to reduce development costs and time-to-market for new products and services, allowing them to be more competitive in the market.

Trend 8

The Larger Role of Big Data and Analytics

Big data and analytics play a significant role in the modern banking system, as they allow banks to better understand and serve their customers and make more informed business decisions. Some potential applications of big data and analytics in banking include:

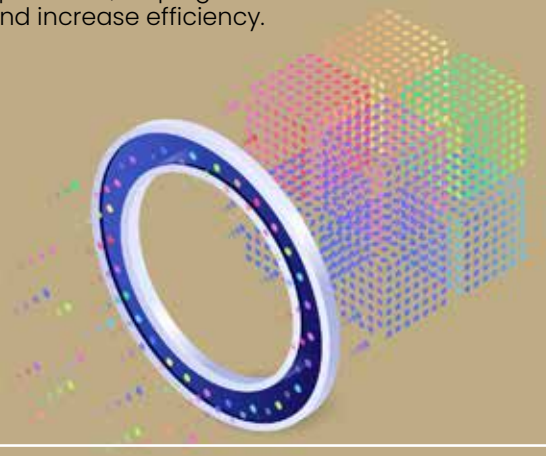
1. Customer segmentation and targeting: Big data and analytics can be used to segment customers into different groups based on shared characteristics and behaviors, allowing banks to tailor their products and services to better meet the needs of each segment.

2. Personalization: Big data and analytics can be used to provide more personalized banking experiences to customers, such as personalized product recommendations or customized financial planning tools.

3. Risk assessment and fraud detection: Big data and analytics can be used to analyze data on potential borrowers and identify patterns that may indicate fraudulent activity, helping banks to make more informed lending decisions and reduce the risk of fraud.

4. Marketing and sales: Big data and analytics can be used to identify trends and patterns in customer behavior, enabling banks to tailor their marketing and sales efforts to more effectively target potential customers.

5. Operations and efficiency: Big data and analytics can be used to identify areas for process improvement and optimize operations, helping banks to reduce costs and increase efficiency.



Trend 9

Greater Focus on Privacy & Cybersecurity

Cybersecurity and privacy are critical issues for banks, as they handle sensitive financial and personal data and are vulnerable to cyber-attacks. The role of cybersecurity and privacy in the banking industry includes:

1. Protecting customer data: Banks have a responsibility to protect the personal and financial data of their customers from unauthorized access, use, or disclosure. This includes measures such as data encryption, secure servers, and robust authentication processes.

2. Preventing cyber-attacks: Banks must take steps to prevent cyber-attacks, such as implementing firewalls, intrusion detection systems, and other security measures. Banks must also have robust incident response plans in place to quickly and effectively respond to any security breaches that do occur.

3. Complying with regulations: Banks must comply with a variety of cybersecurity and privacy regulations, such as the Payment Card Industry Data Security Standard (PCI DSS) and the General Data Protection Regulation (GDPR).

4. Maintaining customer trust: Maintaining customer trust is critical for banks, and strong cybersecurity and privacy practices are essential for building and maintaining that trust.

Trend 10

Increased Adoption of Mobile Banking

The increased adoption of mobile banking refers to the growing use of mobile banking apps and other mobile financial services. Mobile banking allows users to access financial services and conduct transactions, such as checking account balances, paying bills, and transferring money, through their smartphones or other mobile devices. The increased adoption of mobile banking has been driven by several factors, including:

1. The widespread adoption of smartphones: The increasing availability and affordability of smartphones has made mobile banking more accessible to a wider audience.

2. The convenience of mobile banking: Mobile banking offers a more convenient and flexible way to access financial services, as users can conduct transactions from anywhere with an internet connection.

3. The growing popularity of digital payment options: The increasing use of digital payment methods, such as mobile payments and e-wallets, has helped to drive the adoption of mobile banking.

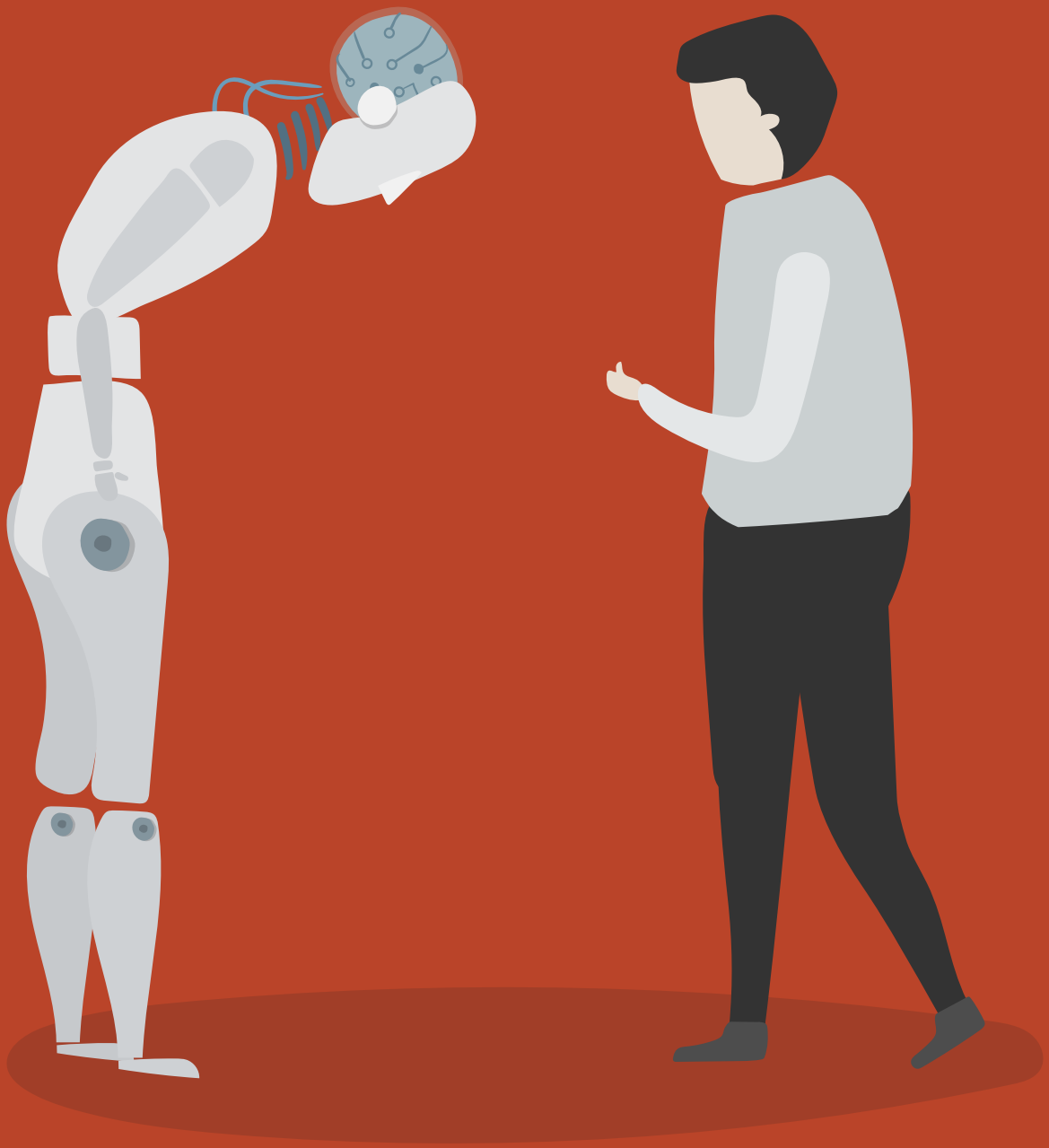
4. The emergence of new technologies: The development of new technologies, such as artificial intelligence and chatbots, has made it possible for banks to provide high-quality customer service and support through mobile banking apps.

Conclusion

In conclusion, digital banking trends are likely to continue evolving and shaping the banking industry in 2023 and beyond. Some key trends to watch include the increased adoption of mobile banking, the growth of digital payment options, the rise of open banking and neobanks, the use of artificial intelligence and chatbots in customer service, and the increasing importance of cybersecurity. Digital banking trends also involve the use of data analytics and machine learning to provide more personalized and convenient banking experiences for customers, as well as the growth of digital lending platforms. Overall, these trends reflect the shift towards a more digitized and connected banking industry, as banks seek to better meet the needs and preferences of their customers in an increasingly digital world.

When the Computer Says No, Challenge It

The rise of machines across the banking sector has long been heralded. But, according to Dr Viktor Dörfler, there are limitations as to what they can deliver – and plenty of misguided rhetoric around the use of non-human processes. Here, he demystifies artificial intelligence, machine learning and automation.



It's hard to read or watch content about the future of financial services and banking without being bombarded by the message that technology and digitalization are reimagining processes, optimizing efficiency, and rapidly evolving the customer experience.

Terminology such as 'chatbots', 'artificial intelligence', 'sentiment analysis' and 'automation' have become common parlance in discussions on the future of banks – with the recurring theme that these technologies can make banking better for everyone.

However, as Dr Viktor Dörfler, Senior Lecturer in Information and Knowledge Management, University of Strathclyde Business School – and a Visiting Professor at the University of Zagreb, Croatia, and Széchenyi University in Hungary – explains, there is often a tendency to confuse the roles of different types of technology, and to sometimes overstate the opportunities offered by them.

"There is certainly confusion around some of the different terms – and that confusion is very common," he says. "In particular, there are three terms that are regularly confused, along with a misunderstanding of what these technologies and processes can deliver: artificial intelligence [AI], machine learning [ML], and automation."

So, what are the differences between AI, ML and automation – and what are their limitations?

Artificial Intelligence

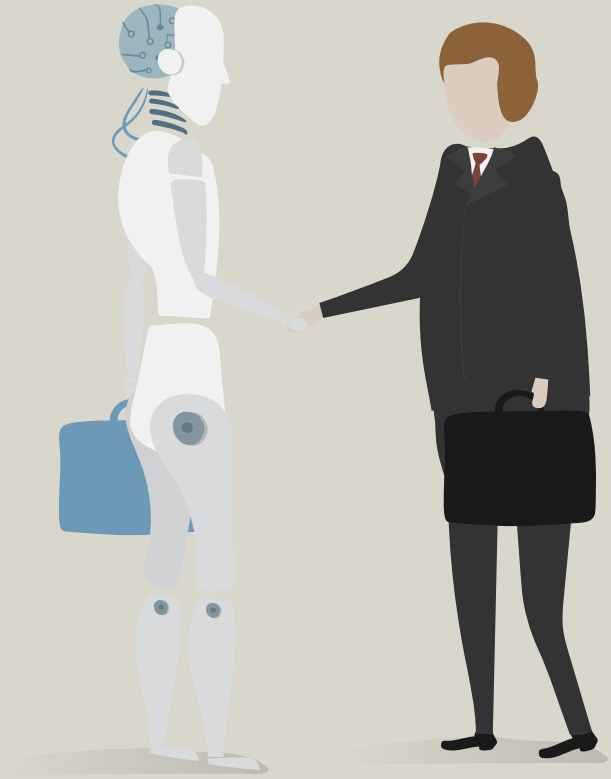
"Artificial intelligence is where a machine performs something that we humans do by thinking, but the definition does not say anything about it doing so in a way that is similar to a human," Dörfler explains. "That's a very important detail – that the machine carries out a function that would require us, and therefore presumably it, to make a conscious decision. This is the area where there is undoubtedly the most over-promise in banking. Do we really have machines in banking that can think? The answer is no. And it is not happening anytime soon; I don't believe that is even possible.

"Of course, there is huge appetite for what is perceived to be AI in banking – because this is a multi-trillion-dollar industry, where a competitive edge is incredibly valuable, and so people are willing to be sold to. But the notion that a machine can make decisions based on attributing human characteristics is simply not right, and hinders our understanding. Confucius said something along the lines of 'when the words are not correct, thinking becomes muddled'."

Automation

Dörfler says that many of the technologies that people perceive to be AI in banking are, in actual fact, nothing more than automation.

"There is a very important difference to understand between AI and automation," he says. "When you strip back many of the practices and processes that machines are used for in banking, you see that they are really just automating regular, well-defined and consistent data processes.



"You need smart people using smart technology. It is not 'either or'."

Dr Viktor Dörfler,
University of Strathclyde Business School

"It is an interesting observation, because in my view it is often vendors that are over-promising the use of AI, many robotic process automation [RPA] companies are very clear about offering simple automated processes, at least first, as you need to get your data processes sorted out before implementing AI. And, in most cases, banks don't actually need AI. Using automation to process data faster and more accurately is more than sufficient. It's just that we seem to have this obsession with over-selling automation as AI."

Machine Learning

While most banking processes are, in fact, automated rather than leveraging AI, Dörfler says the real power of automation is felt if it can be expanded to incorporate another element – ML.

"Once banks' data processing is arranged in a well-structured form and automated so that machines can do that processing faster and accurately – simple automation – it becomes really interesting when you can add ML. ML is one aspect of AI – it is not a different entity.

"ML means we can program the automation process by providing a large number of examples with favorable and unfavorable outcomes, and the machine will learn to replicate the statistical frequency resulting from the examples. This may lead to selection or identifying anomalies based on pre-set criteria and parameters, in the form of a so-called 'goal function', that has been set by a human. It is not a machine with real intelligence – because the machine is not thinking for itself to make those decisions. It cannot make judgments. But it can identify patterns that humans would not be able to identify, based on information it has been provided with."

To further explain the role of ML, Dörfler offers a working example.

"Let's take the example of an artificial neural network [ANN] being used to process a very large number of fMRI pictures taken from cancer patients," he says. "The process will identify patterns that human oncologists could not – for a very simple reason that it can process hundreds of billions of these pictures in a short time, which humans simply cannot do.

"It can process those millions or billions of images, very quickly, and set aside the ones that meet a certain set of criteria far quicker and more consistently than any human.

"Of course, it cannot 'test' for cancer – it cannot make a judgment as to whether the patterns identified mean the patient should be sent for treatment. That has to be done by a human. But that human could decide to set the goal function to admit patients that meet certain characteristics.

"However, that is the real value of automation and ML," Dörfler continues. "If you can bring together the human experts with the machine, so that the machine does the heavy lifting and identifies the patterns – but then refers them to the human for judgment – then that is a very powerful combination. You need smart people using smart technology. It is not 'either or'."

Managing Expectations

Dörfler says organizations that do not align human 'smartness' with technology, and that rely too heavily on automation and ML alone, run the risk of actually frustrating and annoying customers, rather than enhancing their experience.

To demonstrate, he shares another personal story.

"In 2015 I attended a conference with my mentor in Lima, Peru," he recalls. "Clearly, the company through which we booked our flights and accommodation had fed our information into a machine and, from that day on and for the next two years, we kept receiving flight offers for Lima. This is pointless – and it shows how the lack of human input creates a bad experience. If you ask a human travel agent how to deal with a person who, when he was 63 as my mentor was, and who had travelled for the first time in his life to Peru, that travel agent would suggest they are unlikely to want to go to Peru again soon. Instead, you might assume, by looking at their travel history, that these guys are travelling all over the world – and they would want flights offers to, for example, previously unvisited destinations. But AI cannot do that because AI cannot think.

"The problem is that those guys who believe in the 'thinking machine' believe it is only a matter of time away. I believe that it cannot be done at all. See, any such occasion could be programmed – but only one by one, as there is no thinking."

Adding Value

Despite that view, Dörfler is clear that machines – automation and ML – can and do add value to banks, suggesting that examples are evident in everyday life.

"One obvious area where this technology is working really well is in fraud detection," he says. "At another conference when the participants went for lunch they left their jackets in the conference room. During the afternoon session, the police came, stopped the conference and informed the participants that fraudsters had entered the room during the lunch break, stolen a bunch of credit cards and used them to make a number of transactions nearby.

"What is interesting is that the participants did not know, and neither did the police," he adds. "The reason it came to light was that the banks figured it out, because their machines had identified – based on pre-set parameters – an unusual spending pattern. There was a deviation from what was expected. This was flagged and identified – and measures were put in place to stop it.

"This works fantastically well and it is going to expand in the future. But again, it is going to support the experts, not replace them. AI does not make you smarter. AI amplifies what you have, and if you happen to be stupid, it will amplify that as well."

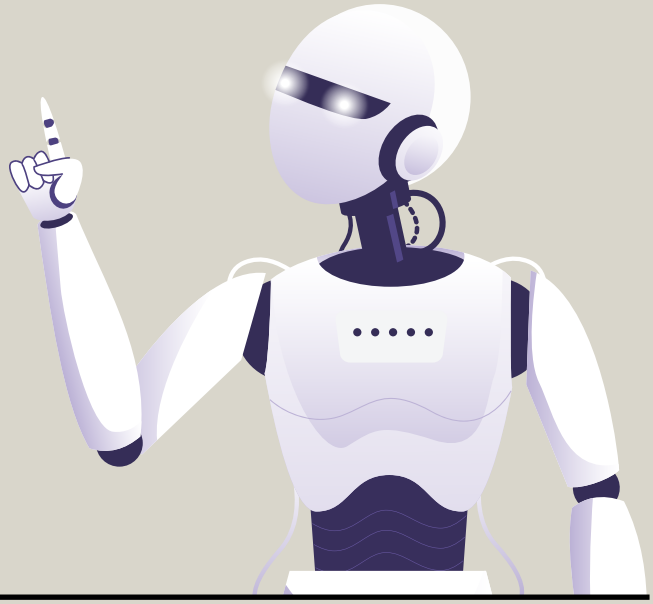
As for whether these technologies can help banks enhance customer loyalty, Dörfler says they can if they are used to add value – such as through the fraud prevention activity outlined above – but not if banks over-rely on them, thus resulting in a lack of common sense and, therefore, greater frustration for customers.

In addition, he says there are certain bank experiences for which customers, at least some of them, will always want human interaction – and where only human interaction can help them achieve their aims.

"People who do banking as I do barely need to see a human banker ever," he explains. "I have automated all my payments, my salary comes in and it covers all

"AI does not make you smarter. AI amplifies what you have, and if you happen to be stupid, it will amplify that as well."

Dr Viktor Dörfler,
University of Strathclyde
Business School



my outgoings, I do not need lots of new products or help. This is all stuff that simple database processes, which should be automated appropriately, can look after.

"So, when do you think I would be OK with AI and when would I prefer to talk to a human? In general if I can ask a precise question, AI should work; but if I need actual advice, when I don't even understand what my problem is, I would like a human. So how do you reconcile this? I think the answer may be so simple that those who push the AI chatbots out a little too eagerly don't even think of it: give your customers a choice. Although it is tricky to depict a constellation of circumstances that could always get it right, I can tell you in most cases 'there and then'. And there is a nice side effect of this approach: if the customers choose AI, they are less likely to be unhappy about it."

There is one last question to answer, says Dörfler. "Why do I argue that computers will not be able to think? If you look at those AI solutions in which knowledge is somehow encoded, symbolic reasoning systems and knowledge-based expert systems, we need the expert to spell out first what we put into AI – in other words, knowledge is limited to explicit knowledge. In systems capable of ML, which apart from ANN also includes knowledge-based expert systems, learning is reduced to reinforcement learning. This means that we lose most of the human knowledge and learning in either case. And it is not a computer problem, we cannot make tacit knowledge and richer forms of learning happen in computers as they are non-algorithmic, in fact, we do not know how they work. We do know computers – what we do not know is the human mind..." ■

VIKTOR DÖRFLER is a scholar, consultant, teacher, and speaker; his book *What Every CEO Should Know About AI* was published by the Cambridge University Press in early 2022. Dörfler's scholarly research into knowledge and learning focuses on intuition, creativity, talent, and the master-apprentice relationship. He conducted in-depth open-ended interviews with 17 Nobel Laureates in order to understand the thinking and learning of those at the highest level of mastery. Between 1999 and 2004 Dörfler spearheaded the development of AI software. This was underlined by his applied research producing new algorithms, comparing various AI solutions, and exploring the validity of AI. In his consultancy work Dörfler advises on AI implementation to support complex decisions through modelling expert knowledge.

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SCAN OF THE DOMESTIC AND EXTERNAL DEBT LIABILITIES

First appeared in IBP's quarterly Journal October-December 2020, this feature on ***'Rewinding the Reel'*** *allows the readers to see the changes which have taken place in the composition, magnitude, and significance of key economic variables over time. How far the analysis could be done, depends upon the availability of consistent timeseries in terms of its definition, components, and the source of data. In the presentation below, more emphasis has been given to the graphical interpretation of data with minimal commentary as to give readers freedom to draw inferences on their own about the policies adopted in the past, sustainability of the existing policies and anticipating the emerging trends.*

Macroeconomic indicators give a better and true picture when the emerging trends are seen in a broader perspective, i.e., over a longer period and always put in place in comparison with the GDP to relate to its (any) possible impact on the economy. The presentation below has been structured following the above spirit and contains glimpses of the causes and effects of sharp increase in the domestic and external debt, particularly observed during last five years.

Borrowing from within and outside the country is a normal part of economic activity. Developing countries, like Pakistan, mostly need to borrow to finance their development expenditures; however, they need to enhance their debt carrying capacity as well. In other words, the borrower must continue to service its external debt obligations in an orderly and stable macroeconomic framework. Furthermore, the borrowed resources must be utilized effectively and productively so that they generate economic activity. Prudent debt management is therefore essential for preventing debt crisis.

Fiscal indiscipline is the root cause of rising debt burden leading to macroeconomic imbalances. A large fiscal deficit worsens current account deficit by strengthening aggregate demand which, in turn, is translated into higher imports. Fiscal discipline is therefore vital for preventing debt crisis and maintaining macroeconomic stability – a critical element for promoting growth and poverty reduction.

1. Domestic Debt Liabilities

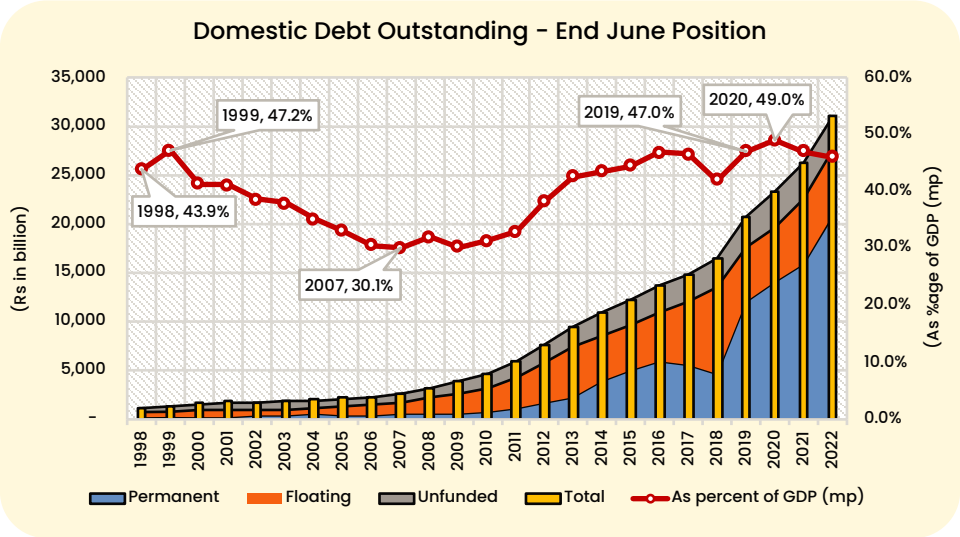
Domestic debt refers to the debt owed to creditors resident in the same country as the debtor. It can be of sovereign nature, i.e., borrowed by a government or non-sovereign, i.e., borrowed by the corporate. Sovereign domestic debt in Pakistan is further classified into three main categories: permanent debt, floating debt, and unfunded debt.

i. Permanent Debt:
Permanent debt includes medium and long-term debt such as Pakistan Investment Bonds (PIB) and prize bonds.

ii. Floating Debt:
Floating debt consists of short-term borrowing in the form of treasury bills.

iii. Unfunded Debt:
Unfunded debt refers mostly to outstanding balances of various national saving schemes.

iv. Foreign Currency Instruments:
It includes FEBCs, FCBCs, DBCs and Special US Dollar Bonds held by the residents.



The domestic debt to GDP ratio which was seen at 47.2 percent in 1999, started to come down gradually to touch the lowest level of 30.1 percent on June 30, 2007. Thereafter, it started to creep up and was seen at its peak during the last 25 years at 49.0 percent of GDP, on June 30, 2020. It was recorded at 46.0 percent on June 30, 2022.

2. External Debt Liabilities

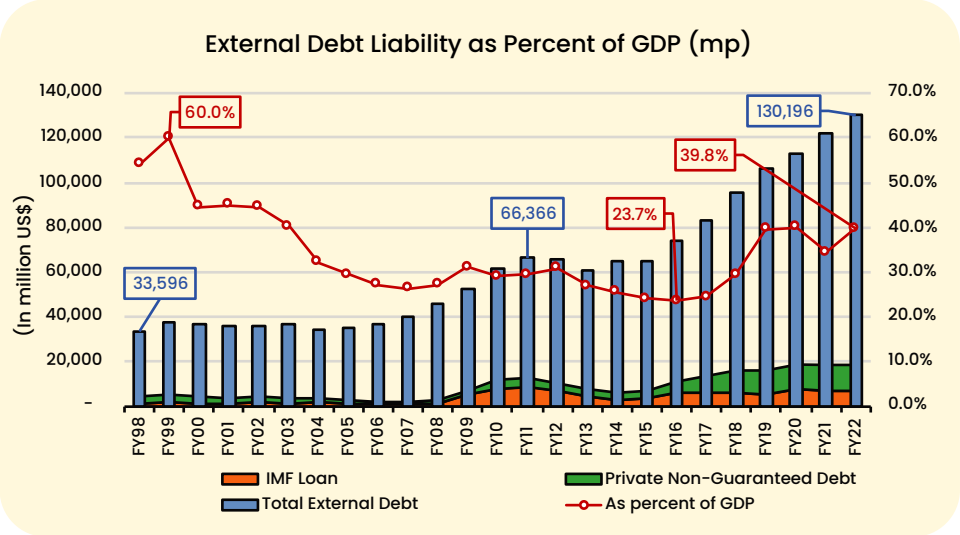
External debt, at any given time, is the outstanding amount of those liabilities that require payment(s) of principal and interest by the debtor at some point(s) in the future and that are owed to nonresidents by the residents of an economy.

i. Private Non-guaranteed Debt:
Private non-guaranteed debt is defined as the external liabilities of the private sector, the servicing of which is not guaranteed by the government of the economy as that of the debtor.

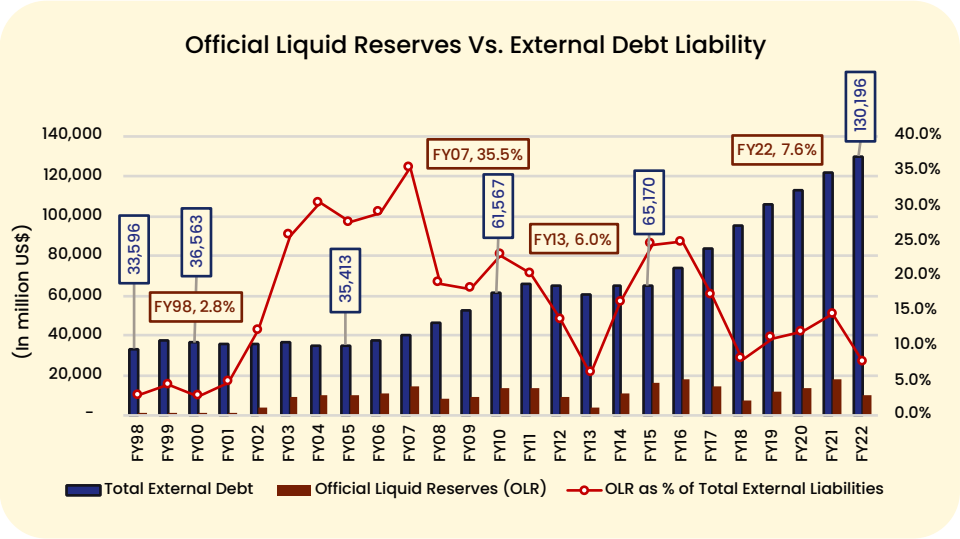
ii. Public and Publicly Guaranteed Debt:
External obligations of a public debtor including national government and autonomous bodies and external obligations of a private debtor that are guaranteed for repayment by a public entity.

iii. Foreign Exchange Liabilities:
External liabilities include Central bank deposits, SWAPS, Allocation of SDR and Nonresident LCY deposits with Central bank.

iv. Official Liquid Reserves:
The official reserve assets are assets denominated in foreign currency, readily available to and controlled by monetary authorities for meeting balance of payments financing needs, intervening in exchange markets to affect the currency exchange rate, and for other related purposes (such as maintaining confidence in the currency and the economy, and serving as a basis for foreign borrowing).

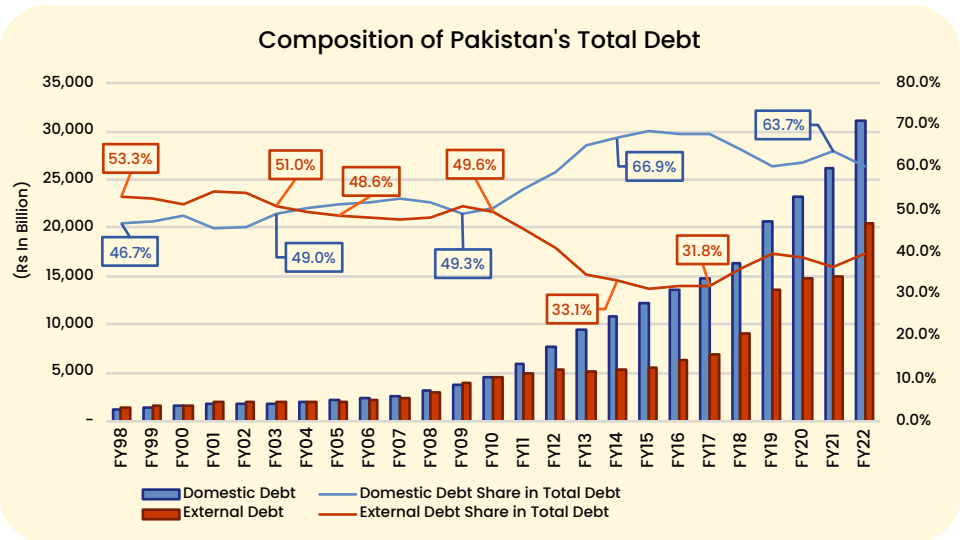


The external debt to GDP ratio declined from 60.0 percent in FY99 to as low as 23.7 percent in FY16 because of the contained growth in the debt liability coupled with stronger growth in nominal GDP. However, in succeeding years the debt to GDP ratio increased and reached at 39.8 percent in 2022.

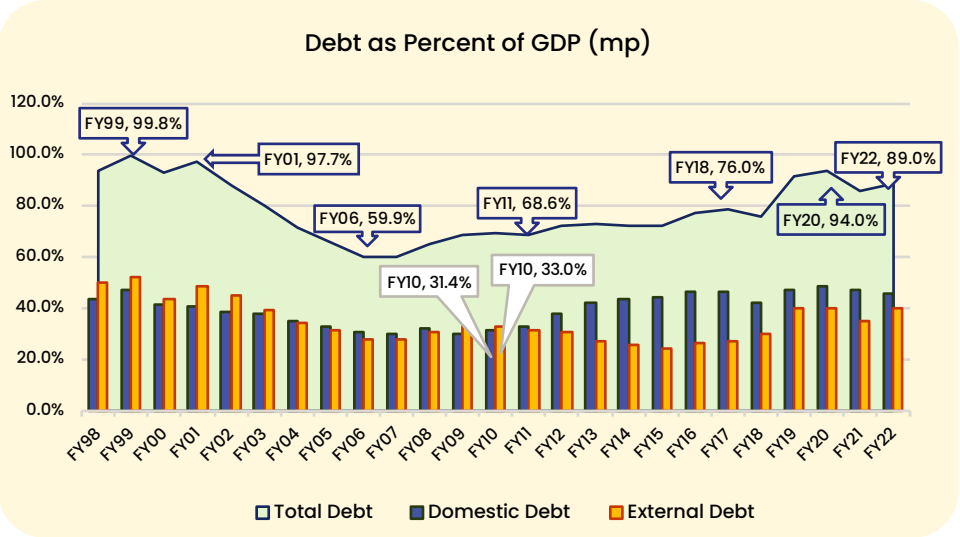


The data on Official Liquid Reserves (OLRs) shows that it always remained at critically low and volatile level irrespective of increases in other macroeconomic variables during last 25 years. It was seen is at US$ 9.9 billion at the end of FY22 i.e., almost the same as it was in FY05 at US$ 9.8 million.

3. Domestic + External Debt & Liabilities:

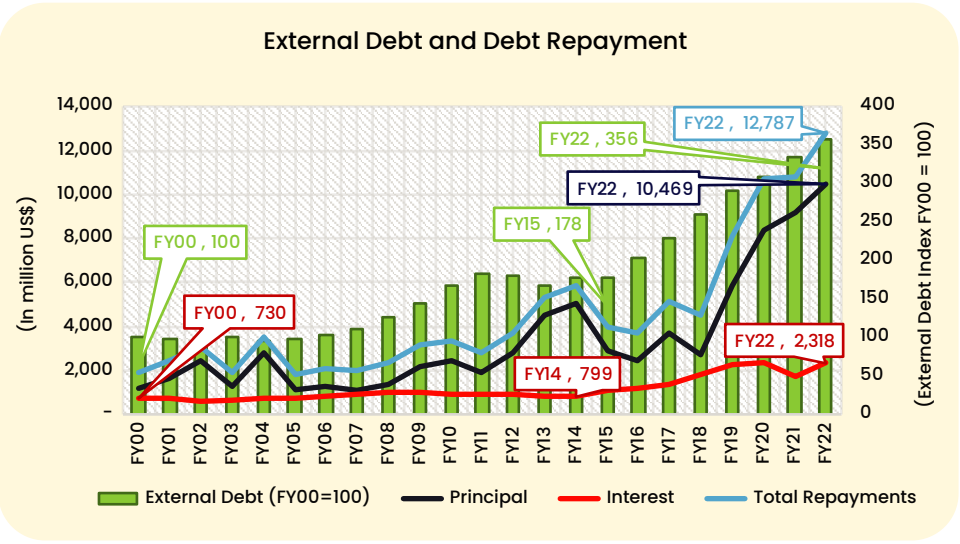


There had been a close competition between domestic debt and external debt to occupy 50 percent of the total debt during FY98 to FY10, but from FY11 onwards domestic debt rose rapidly and reached 60.3 percent as against 39.7 percent of external debt by the end of FY22.

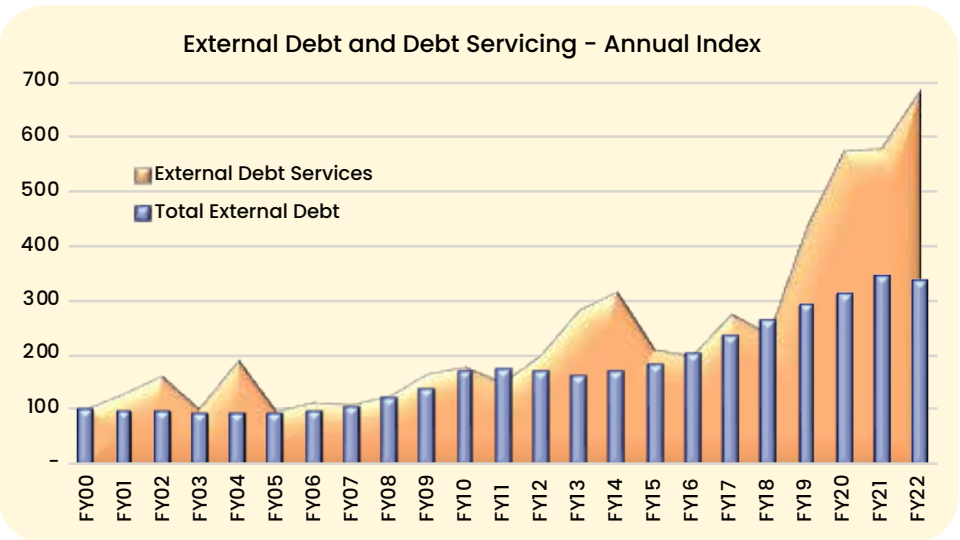


During last 25 years, FY99 saw total debt to GDP ratio at 99.8 percent, i.e., almost 100 percent if rounded to whole numbers. It started to come down sharply after FY01 and dropped to 76.0 percent in FY18. After FY10, the external debt always fell behind the domestic debt till reaching FY22.

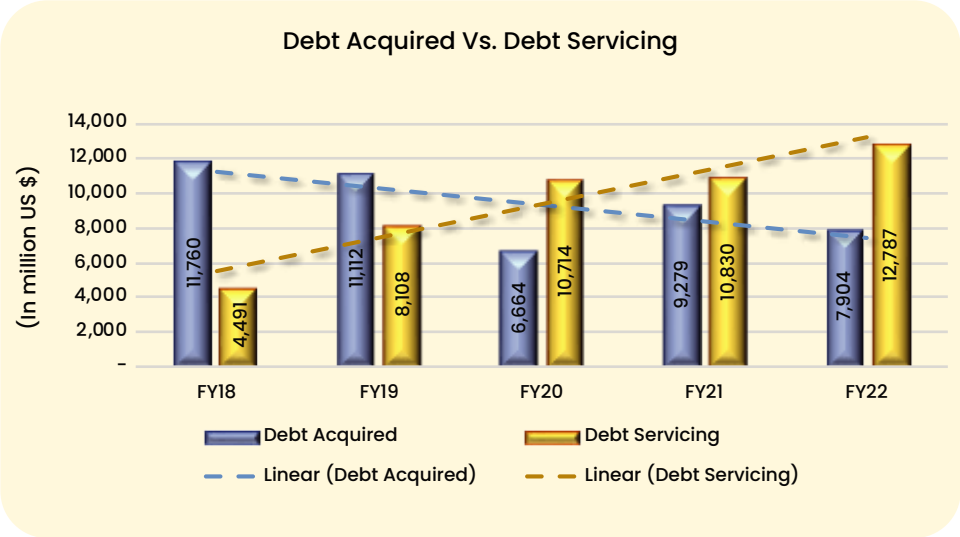
4. External Debt Repayment (Principal + Interest):



While there had been a linear increasing trend in the amount of total repayment of debt during FY00 to FY18, almost a vertical growth was seen in FY19 onwards when the debt servicing increased by 80.6 percent in only one year. It rose from US$ 4.5 billion in FY18 to US$ 8.1 billion in FY19. At the end of FY22 total repayment of extral debt was witnessed at US$ 12.8 billion.



Plotting of annual indices of both the variables i.e., i) the total external debt and ii) the external debt servicing, gives a more glaring picture of rise in external debt servicing where it becomes clearly evident that there had been and a steep rise in the debt servicing portfolio after FY18.



Last five years' comparison between debt acquired and debt servicing showed that there had been a drastic shift in the debt servicing from FY20 onwards when it exceeded the amount of debt acquired during the year. Now more than the debt acquired for the year is spent on debt servicing.

Sources:

Definitions:
https://www.sbp.org.pk/reports/stat_reviews/Bulletin/2023/Mar/Glossary.pdf
https://www.google.com/search?client=ms-google-coop&q=+Official+Resrves+assets

Data:
https://www.sbp.org.pk/reports/stat_reviews/Bulletin/2023/Mar/DomesticExternalDebt.pdf
https://www.sbp.org.pk/ecodata/pakdebtsvr_Arch.xls

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Consumer Protection

Financial consumer protection is one of the important policy objectives pursued by central banks and financial regulators around the globe. There is growing consensus amongst global policy makers that achieving financial inclusion and stability hinges on enhancing the consumers' confidence in the financial system. With the emergence of globalization, technological advancement and financial innovation, consumer protection has become even more challenging in today's financial world.

As the financial landscape of Pakistan has transformed significantly over the years, it has allowed new and more efficient delivery and processing channels as well as more innovative products and services in the financial market.

However, the development of diversified financial products has also given rise to various disputes, misunderstandings and dissatisfaction among financial consumers. In order to safeguard their interest, the State Bank of Pakistan (SBP) has intensified regulatory oversight on consumer protection related issues. For the purpose, a dedicated Consumer Protection Department (CPD) was established in 2008. However, in line with SBP's vision 2020 to gradually retrench from complaints handling and to focus on conduct regulation and supervision, the name of CPD has been changed to ***Banking Conduct & Consumer Protection Department (BC&CPD).***

With the strategically enhanced role to regulate business conduct of banks and to ensure that consumers get fair & transparent banking deals, an understanding has been developed with the Banking Mohtasib Pakistan (BMP) that complaints received by SBP, which require detailed investigations will be gradually routed to them. However, the issues requiring urgent action may continue to be handled by BC&CPD. Towards this end, BC&CPD is striving that financial service providers have competitive frameworks, responsible marketing & lending practices, and adequate complaint handling and redress mechanisms to safeguard the vulnerable segment of consumers.

We are presenting some FAQs on Consumer Protection by SBP (BC&CPD) for the benefit of our readers.

Complaint Resolution

Q1. Where I can lodge a complaint related to any banking matter?

ANS: The first forum for lodging the complaint related to any banking matter is the concerned bank's own Complaint Management Unit (CMU). If the CMU at the bank fails to respond timely to the customer i.e., within 45 days or the customer remains unsatisfied with the outcome of the complaint, then the customer can lodge a complaint with the Banking Mohtasib Pakistan (BMP). The Banking Mohtasib Pakistan is an independent statutory body which is mandated to resolve disputes through a process which is largely conciliatory in the light of Federal Ombudsman Institution Reforms Act (FOIRA) 2013. The details regarding Complaint Grievance Handling Mechanism (CGHM) for banks may be accessed at the link given below:
http://www.sbp.org.pk/cpd/2016/C1.htm

Q2. What type of complaints does the Banking Mohtasib Pakistan (BMP) deal with?

ANS: The BMP can entertain disputes and complaints relating to, Banking Malpractices, Perverse, Arbitrary and Discriminatory Actions, Operational Issues, Operational Inefficiency, Violation of Banking Laws and Regulations, Harassments in Recovery of Loans, Additionally, in the case of Public Sector Banks, the BMP can entertain complaints relating to, Corruption, Nepotism and, Maladministration.

The above information can also be accessed at the link below:
http://www.bankingmohtasib.gov.pk/faqs_eng.php

Q3. How can I lodge a complaint at Banking Mohtasib Pakistan (BMP)?

ANS: Details regarding the procedure for lodgment of complaint at BMP can be accessed at:
http://www.bankingmohtasib.gov.pk/complaints.php

Q4. What types of complaints does State Bank of Pakistan (SBP) deal with?

ANS: SBP deals with complaints related to Microfinance banks, Prize Bonds, Currency etc. Besides, issues related to utility bills, disbursement of pensions and matters that require immediate resolution are also handled by SBP. However, it may be noted that SBP does not intervene in HR related matters of banks, sub judice matter/ disputes/ complaints (matters pending adjudication before the competent court of law) or at any law enforcement agency i.e., FIA, NAB etc.

Q5. What are the contact details for filing a complaint at SBP?

ANS: Complaints related to above areas can be addressed at:

Surface Mail: **Director**
Banking Conduct and Consumer Protection Department (BC&CPD)
State Bank of Pakistan
I.I. Chundrigar Road
Karachi.
E-mail: cpd.helpdesk@sbp.org.pk
Help Line: 0092-21-111-727-273
Fax No: 0092-21-99221160
Website: *http://www.sbp.org.pk/cpd/cpd-help.asp*

Q6. What sort of complaints does SBP not usually entertain?

ANS: SBP does not entertain complaints of personal disputes including renting of properties and undocumented claims/ disputes. Further, SBP will not deal any complaint which is pending for adjudication in the competent court of law or has already been decided by the court of law in Pakistan.

Q7. Does SBP entertain any anonymous complaint?

ANS: SBP does not entertain any anonymous complaint received which lacks identity of the complainant.

Q8. Can I lodge my complaint at any office of SBP?

ANS: Yes, SBP has established Customer Facilitation Centers located in Karachi, Hyderabad, Sukkur, Bahawalpur, Multan, Dera Ismail Khan, Lahore, Gujranwala, Sialkot, Faisalabad, Rawalpindi, Peshawar, Quetta and Muzaffarabad, where you can approach to lodge your complaint. Besides, a dedicated helpline (0092-21-111-727-273) and e-mail ID (cpd.helpdesk@sbp.org.pk) has also been developed to facilitate public regarding their queries.

Q9. Does SBP investigate a complaint not directly addressed to it?

ANS: SBP does not investigate any such complaint which is directly addressed to a bank or other authorities/ organizations, while a copy of complaint is sent to SBP merely for information.

Q10. Can I file an appeal against the orders passed by BMP?

ANS: In case of lodging complaint with BMP, SBP cannot exercise its powers over the complaint already decided by the BMP as its decision, order, findings or recommendations will be final and decisive. However, a representation can be made to the President of Pakistan within 30 days of the decision, order, findings or recommendation passed by BMP under FOIRA 2013.

Q11. Can SBP resolve issues related to Investment Banks, Modaraba Companies, Leasing Companies, Insurance Companies and other Non-Bank Financial Institutions (NBFIs)?

ANS: No, SBP does not have any regulatory jurisdiction over Investment Banks, Leasing, Modaraba and Insurance Companies or other Non-Bank Financial Institutions (NBFIs). However, complaints against these NBFIs can be addressed to Securities and Exchange Commission of Pakistan (SECP), Islamabad, who has regulatory jurisdiction over these NBFIs.

Q12. Can SBP direct a bank to provide loans & advances to a complainant?

ANS: SBP cannot direct any bank to extend loans & advances to a person or entity. The banks are free to make lending related decisions in line with their credit policies, duly approved by the respective Board of Directors of the bank.

Q13. Does SBP give any legal or financial advice?

ANS: SBP does not offer, whatsoever, any legal opinion and financial advice to anyone.

Q14. Can I claim damages or compensation against banks' wrong doing, by approaching SBP?

ANS: SBP cannot award damages and compensation against breach of contractual obligation or legal rights of customers/ consumers of the banks. For compensation and damages, the complainant may seek judicial recourse.

Q15. I am residing abroad. How can I raise my grievance against any bank operating in Pakistan?

ANS: Overseas Pakistanis can record their grievances against any bank/ DFI through Overseas Pakistani Foundation (OPF). OPF was established by Government of Pakistan to resolve the issues of overseas Pakistanis in an efficient manner. SBP addresses such complaints/ issues received through OPF and make every possible effort to resolve. The procedure for filing the complaint with OPF can be viewed at the link given below:
https://www.opf.org.pk/services/complaint-cell/

Unclaimed Deposits

Q16. What is an unclaimed deposit?

ANS: An account shall be classified as unclaimed deposit if no transaction has taken place and no statement of account has been requested or acknowledged by the creditor during a period of 10 (ten) years or more. It also includes cheque, draft, instrument, or bill of exchange etc.

Q17. How can I claim my unclaimed deposit/ instrument?

ANS: The deposit/ instrument holder may submit an application duly signed or with thumb impression to the concerned branch with complete details of particulars i.e., name, address, NIC/ CNIC, contact numbers and reason of surrendering. The bank will submit the same to SBP for processing along with other documents as prescribed by SBP in the relevant circular given as under:
http://www.sbp.org.pk/bpd/2006/C7.htm

However, the responsibility of proper identification of the customer rests with the bank.

Q18. What are the timelines for banks to surrender the unclaimed data to SBP?

ANS: As per the regulatory instructions, all banks are required to surrender provisional data related to unclaimed deposits within 30 days of close of each calendar year i.e., January 30, and final data by April 15. For details regarding procedure for surrendering/ refund of unclaimed deposits/ instruments, following links may be viewed:
http://www.sbp.org.pk/bpd/2006/C7.htm
http://www.sbp.org.pk/cpd/2012/CL2.htm

Q19. Can any deposits in the name of a minor be surrendered to SBP?

ANS: Deposits in the name of a minor, government or under litigation, are exempted from surrendering to SBP.

Q20. Is there any requirement for banks to intimate the customer before surrendering the deposit/ instrument to SBP?

ANS: Yes, all banks are required to serve a three months' notice in writing by registered post to the account/ instrument holder.

Q21. What are the instructions for accounts inactive for 10 years or more but have been frozen under UNSC resolution?

ANS: Accounts in the names of entities, individuals etc. which have been frozen under UNSC Resolution shall not be treated as unclaimed deposits for surrendering to SBP unless the account status is changed.

Q22. Does SBP process unclaimed refund application directly addressed to it?

ANS: SBP will not entertain any application for unclaimed refund received directly from the customer.

Q23. In case where customer is deceased, does the succession certificate need to be provided with every claim?

ANS: For claims below Rs 100,000/-, banks can forward refund claim without obtaining the succession certificate from the legal heirs and fulfilling other requirements as embodied in the CPD circular letter No. 01 of 2012. The link is given below:
http://www.sbp.org.pk/cpd/2012/CL1.htm

Q24. The status of my account has been marked as dormant from the past 8 years. However, credit entries are being made into the account with regular intervals. Is it going to be surrendered under unclaimed deposits after reaching the time period of 10 years?

ANS: Dormancy of the account and surrendering of unclaimed deposits are two separate areas and are not interrelated. For any dormant account to be surrendered under unclaimed deposits, it must fulfill the specific statutory requirements. Only status of the account being dormant does not qualify it for surrendering under unclaimed deposits.

Politically Exposed Persons' (PEPs)

Q25. What are Politically Exposed Persons (PEPs)?

ANS: PEPs are individuals who are entrusted with prominent public functions either domestically or by a foreign country, for example Heads of State or of government, senior politicians, senior government, judicial or military officials, senior executives of state-owned corporations/ departments/ autonomous bodies.

Q26. Is there any focal person appointed by SBP for resolving the issues faced by Politically Exposed Persons (PEPs)?

ANS: Yes. SBP and all banks have nominated a respective focal person to deal with PEP matters. The contact details of such focal persons appointed by banks and SBP are available at SBP website and may be viewed at the following link:
http://www.sbp.org.pk/cpd/pdf/PEP.pdf

Q27. Is there any other forum for lodging the complaint if the PEP is not satisfied with the response of the bank's focal person or grievance remains unresolved?

ANS: If PEP is not satisfied with the outcome of the complaint or his/ her grievance is not resolved within 15 days after registration of the complaint with bank's focal person, then he/ she may directly contact the focal person appointed by SBP, the detail of which is given in this link :
http://www.sbp.org.pk/cpd/cpd-help.asp

Q27. Is there any other forum for lodging the complaint if the PEP is not satisfied with the response of the bank's focal person or grievance remains unresolved?

ANS: If PEP is not satisfied with the outcome of the complaint or his/ her grievance is not resolved within 15 days after registration of the complaint with bank's focal person then he/ she may directly contact the focal person appointed by SBP. The details are given in the link:
http://www.sbp.org.pk/cpd/cpd-help.asp

Q28. Are there any Standard Operating Procedures (SOPs) devised by SBP to facilitate PEPs in the process of account opening?

ANS: Yes, SBP has devised Standard Operating Procedures (SOPs) to facilitate PEPs and streamline account opening process. The same may be accessed here:

http://www.sbp.org.pk/bprd/2019/CL18.htm

Source: *https://www.sbp.org.pk/cpd/cpd-faqs.asp*

Add-ons to SBP POLICY REGIME

January-March 2023

The primary objective of this feature is to highlight changes, or 'add-ons' to the SBP policies, on a quarterly basis to provide the readers better comprehension and analysis of the central bank's policy regime, as well as being an easily accessible time-lined reference guide.

All circulars are easily accessible in the PDF of the Journal, available on the following link on the IBP website: https://ibp.org.pk/quarterly-journal/

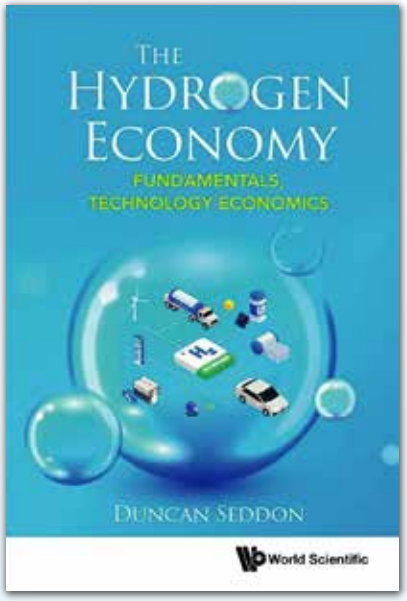
S#	Circular No / Issued on	Subject Matter
1	BPRD Circular No. 01 of 2023/ January 16, 2023	Framework on Outsourcing to Cloud Service Providers https://www.sbp.org.pk/bprd/2023/C1.htm
2.	BPRD Circular No. 02 of 2023/ February 09, 2023	Format of Annual and Interim Financial Statements of Banks/DFIs https://www.sbp.org.pk/bprd/2023/C2.htm
3.	BPRD Circular No. 03 of 2023/ February 09, 2023	Format of Annual and Interim Financial Statements of Microfinance Banks (MFBs) https://www.sbp.org.pk/bprd/2023/C3.htm
4.	BPRD Circular Letter No. 01 of 2023/ February 02, 2023	Public Holiday https://www.sbp.org.pk/bprd/2023/CL1.htm

5.	BPRD Circular Letter No. 02 of 2023/ March 17, 2023	Deduction of Zakat at Source in Respect of Saving Banks / Profit & Loss Sharing and Similar Bank Accounts (Asset Code No.101) and Deposit Thereof Immediately After Deduction Date https://www.sbp.org.pk/bprd/2023/CL2.htm
6.	BPRD Circular Letter No. 03 of 2023/ March 20, 2023	Public Holiday https://www.sbp.org.pk/bprd/2023/CL3.htm
7.	BPRD Circular Letter No. 04 of 2023/ March 21, 2023	Bank Holiday https://www.sbp.org.pk/bprd/2023/CL4.htm
8.	BPRD Circular Letter No. 05 of 2023/ March 22, 2023	Office & Business Hours for Ramadan-ul-Mubarak 1444 A.H. https://www.sbp.org.pk/bprd/2023/CL5.htm
9.	BPRD Circular Letter No. 06 of 2023/ March 24, 2023	Margin Restriction on Import of Items https://www.sbp.org.pk/bprd/2023/CL6.htm
10.	DMMD Circular No. 01 of 2023/ January 23, 2023	SBP's Policy Rate and Overnight Repo / Reverse-Repo Facilities https://www.sbp.org.pk/dmmd/2023/C1.htm
11.	DMMD Circular No. 02 of 2023/ January 31, 2023	Rate of Remuneration on Special Cash Reserve Account Maintained with SBP Against Deposits Raised Under FE-Circular 25 of 1998 https://www.sbp.org.pk/dmmd/2023/C2.htm
12.	DMMD Circular No. 03 of 2023/ March 01, 2023	Rate of Remuneration on Special Cash Reserve Account Maintained With SBP Against Deposits Raised Under FE-Circular 25 of 1998 https://www.sbp.org.pk/dmmd/2023/C3.htm
13.	DMMD Circular No. 04 of 2023/ March 02, 2023	SBP's Policy Rate and Overnight Repo / Reverse-Repo Facilities https://www.sbp.org.pk/dmmd/2023/C4.htm
14.	DMMD Circular No. 05 of 2023/ March 03, 2023	Rate of Remuneration on Special Cash Reserve Account Maintained with SBP Against Deposits Raised Under FE-Circular 25 of 1998 https://www.sbp.org.pk/dmmd/2023/C5.htm
15.	DMMD Circular Letter No. 01 of 2023/ February 14, 2023	Government of Pakistan Ijara Sukuk https://www.sbp.org.pk/dmmd/2023/CL1.htm
16.	FE Circular No. 01 of 2023/ February 13, 2023	Realization of Export Proceeds https://www.sbp.org.pk/epd/2023/FEC1.htm
17.	FE Circular No. 02 of 2023/ March 31, 2023	Realization of Export Proceeds https://www.sbp.org.pk/epd/2023/FEC2.htm
18.	EPD Circular Letter No. 01 of 2023/ January 05, 2023	Reimbursement of T.T Charges against Home Remittances https://www.sbp.org.pk/epd/2023/FECL1.htm
19.	EPD Circular Letter No. 02 of 2023/ January 13, 2023	Exports of Software, Information Technology (IT) and IT Enabled Services (ITeS) https://www.sbp.org.pk/epd/2023/FECL2.htm
20.	EPD Circular Letter No. 03 of 2023/ January 13, 2023	Utilization of Funds held in Exporters' Special Foreign Currency Account https://www.sbp.org.pk/epd/2023/FECL3.htm

21.	EPD Circular Letter No. 04 of 2023/ January 20, 2023	Export of Sugar https://www.sbp.org.pk/epd/2023/FECL4.htm
22.	EPD Circular Letter No. 05 of 2023/ January 25, 2023	Remittance of Freight Charges by Freight Forwarders/Consolidators https://www.sbp.org.pk/epd/2023/FECL5.htm
23.	EPD Circular Letter No. 06 of 2023/ January 30, 2023	Export of Sugar https://www.sbp.org.pk/epd/2023/FECL6.htm
24.	EPD Circular Letter No. 07 of 2023/ March 24, 2023	Foreign Investment in Real Estate Investment Trust (REIT) Schemes https://www.sbp.org.pk/epd/2023/FECL7.htm
25.	FD Circular Letter No. 01 of 2023/ January 23, 2023	Standard Operating Procedures (SOPs) for Investment in Conventional Naya Pakistan Certificates (Certificates) https://www.sbp.org.pk/acc/2023/CL1.htm
26.	FD Circular Letter No. 02 of 2023/ February 08, 2023	Prime Minister's Relief Fund for Türkiye's Earthquake Victims https://www.sbp.org.pk/acc/2023/CL2.htm
27.	PSPOD Circular No. 01 of 2023/ January 10, 2023	Guidelines for Downtime of Digital Channels/Services https://www.sbp.org.pk/psd/2023/C1.htm
28.	PSP&OD Circular Letter No 01 of 2023/ March 17, 2023	Improving Payment Card Acceptance Infrastructure in Pakistan https://www.sbp.org.pk/psd/2023/CL1.htm
29.	No. DS. IIP/L007415/23/ March 27, 2023	Registration/Statement of Foreign Private Loans (FPL)-Revision in Timelines https://www.sbp.org.pk/stats/2023/C1.htm

The Hydrogen Economy

FUNDAMENTALS, TECHNOLOGY, ECONOMICS



By: Duncan Seddon

Synopsis

The *'Hydrogen Economy'* is very broad subject ranging from the potential use of hydrogen for domestic use to the mass production of hydrogen replacing coal, natural gas (LNG) and conventional transport fuels. For any given project, there are many alternatives to consider for each stage of making, storing and transporting hydrogen.

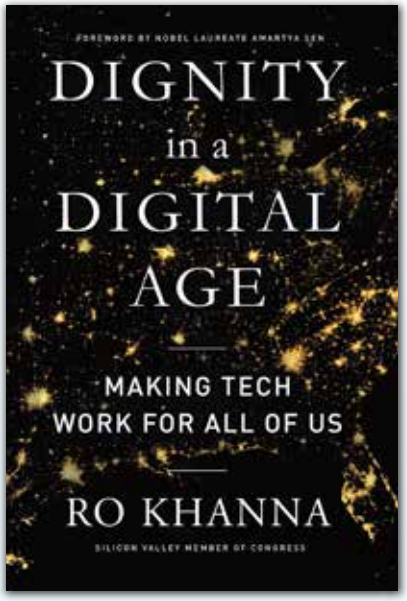
The book aims to assist proponents, and financiers of hydrogen projects to identify the optimum alternatives and identify hurdles and approaches to overcome them. This book attempts to describe an optimum approach to implement and its cost. It sets out to identify hurdles to implementation which may not be apparent to those entering the field for the first time. *Hydrogen Economy* covers the various means and costs of production from fossil fuels (with carbon capture) – blue hydrogen – electrolysis – green hydrogen – or biomass. The book covers hydrogen storage as liquid or compressed gas and transport, through pipelines as liquid or by an intermediary fluid such as ammonia or a hydrocarbon. The book also discusses the production and costs of hydrogen delivery at the user end of a logistics chain. It also compares the relative energy value of energy delivered hydrogen versus the current suite of conventional fuels.

About the Author

Dr Duncan Seddon is principal consultant for Duncan Seddon & Associates, Pty. Ltd, Australia, providing consulting services to energy-intensive and related industries. With more than 30 years of experience in petroleum, petrochemical, and gas conversion research issues, Seddon holds a B.Sc. Special Hons. (First Class) and PhD in Chemistry from the University of Sheffield, UK; is a Personal Fellow of the Science Research Council at Imperial College, London; a Fellow of the Royal Australian Chemical Institute; and member of the Australian Institute of Energy and Society of Petroleum Engineers. He served as a member of the Biological Committee of the AusIndustry START program, and has more than 100 publications including refereed papers, patents, conference papers, and general articles.

DIGNITY IN A DIGITAL AGE

MAKING TECH WORK FOR ALL OF US



By: Ro Khanna

Synopsis

Congressman Ro Khanna offers a revolutionary roadmap to facing America's digital divide, offering greater economic prosperity to all. In Khanna's vision, "just as people can move to technology, technology can move to people. People need not be compelled to move from one place to another to reap the benefits offered by technological progress" (from the foreword by Amartya Sen, Nobel Laureate in Economics).

In the digital age, unequal access to technology and the revenue it creates is one of the most pressing issues facing the United States. There is an economic gulf between those who have struck gold in the tech industry and those left behind by the digital revolution; a geographic divide between those in the coastal tech industry and those in the heartland whose jobs have been automated; and existing inequalities in technological access—students without computers, rural workers with spotty WiFi, and plenty of workers without the luxury to work from home.

Dignity in the Digital Age tackles these challenges head-on and imagines how the digital economy can create opportunities for people all across the country without uprooting them. Congressman Ro Khanna of Silicon Valley offers a vision for democratizing digital innovation to build economically vibrant and inclusive communities. Instead of being subject to tech's reshaping of our economy, Representative Khanna argues that we must channel those powerful forces toward creating a more healthy, equal, and democratic society. Born into an immigrant family, Khanna understands how economic opportunity can change the course of a person's life. Anchored by an approach Khanna refers to as "progressive capitalism," he shows how democratizing access to tech can strengthen every sector of economy and culture.

By expanding technological jobs nationwide through public and private partnerships, we can close the wealth gap in America and begin to repair the fractured, distrusting relationships that have plagued our country for far too long. Moving deftly between storytelling, policy, and some of the country's greatest thinkers in political philosophy and economics, Khanna presents a bold vision we can't afford to ignore. *Dignity in a Digital Age* is a roadmap to how we can seek dignity for every American in an era in which technology shapes every aspect of our lives.

Reviews

"In this passionate and inspiring book, Khanna offers a vision for creating spaces for rational exchange in digital media that do not serve first and foremost economic interests. I am impressed by the precise imagination of this well-informed politician."
—Jürgen Habermas, Professor Emeritus of Philosophy, Johann Wolfgang Goethe University of Frankfurt am Main

"It might seem counterintuitive for a member who represents Silicon Valley to write a book on expanding technology to the middle of the country, but that is precisely why it is so important. In this 'shake the snow globe' moment, Representative Khanna makes a compelling case for place-based policymaking and how a more well-dispersed innovation economy can help rising cities thrive."
—Steve Case, author of *The Third Wave,* chairman and CEO of Revolution, and cofounder of America Online

"Just on the evidence of his new book, Ro Khanna is one of the broadest, brightest and best-educated legislators on Capitol Hill… His book is bulging with ideas about how to transform big tech from a huge threat to liberty into a genuine engine of democracy."
—The Guardian US

"Congressman Ro Khanna (D-Calif.) argues democratizing access to tech can strengthen both the economy and our social fabric with a roadmap to bridging the geographic and digital divides."
—Fortune

About the Author

Ro Khanna represents Silicon Valley in Congress. He has taught economics at Stanford, served as Deputy Assistant Secretary of Commerce in the Obama Administration, and represented tech companies and startups in private practice. He is the author of *Progressive Capitalism: How to Make Tech Work for All of Us.*

WORLD'S BEST BANK

A Strategic Guide to Digital Transformation

By: Robin Speculand

Synopsis

Discover a digital transformation playbook to move from a traditional to digitally driven organization based on DBS Bank, which has been recognized by Harvard as one of the top ten digital transformations of the last decade and as the world's best bank by the most prestigious banking awards. *World's Best Bank* provides you a strategic guide to leveraging digitalization and create better experiences for your customers. It is based on unique and exclusive interviews of DBS C-suite conducted in person by the author. This book tells how DBS Bank transformed from a traditional bank to the world's best bank by making banking invisible by leveraging technology. In this inspirational journey of the weaving of customer insights, business needs and technology opportunities, you will discover hard-won insights, proven practices, provocative questions and relevant anecdotes you can apply in guiding your own digital journey.

World's Best Bank describes how DBS, under the stewardship of CEO Piyush Gupta, adopted three strategic waves over 11 years. This journey reveals how the bank leveraged new technologies, became customer-obsessed and transformed its company culture. Following the digital wave came the sustainability wave, which addresses issues of inequality and the future of our planet. You will also explore lessons from the bank's rapid response to customers' and employees' needs when the COVID-19 pandemic struck. *World's Best Bank* is not only about implementing a digital strategy; it is a rallying call for an industry revolution and a strategic guide on how to overcome your challenges in implementing digitalization.

Reviews

"I recommend reading this book for any leader involved in digital transformation to not only avoid common mistakes but also adopt best practices."
– Rita McGrath, Associate Professor, Columbia Business School; bestselling author of *Seeing Around Corners*

"If you are a leader in digital transformation, you can clear the hurdles and avoid the pitfalls by applying Robin Speculand's real-world experience and advice."
– Ron Kaufman, *NY Times* bestselling author and global customer service thought leader

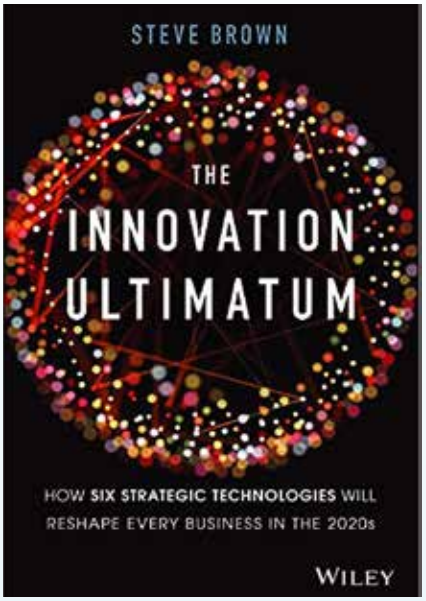
About the Author

Robin Speculand passionately lives and breathes strategy implementation. He continually creates new approaches to supporting leaders in transforming their organizations and is one of the world's most prolific writers on the subject. Speculand has founded three companies, three business associations and is the CEO of Bridges Business Consultancy Int. Singapore Airlines was among the first organizations to embrace this new field and engaged him to support its global strategy implementation. Speculand also co-founded an online education forum—the Strategy Implementation Institute—that provides leaders with a community, online course and online certification in the field. He researched the challenges globally and in 2018 co-authored the white paper *Transforming Your Company into a Digital-Driven Business.*

Speculand has published five books on strategy implementation. His latest is *World's Best Bank - A Strategic Guide to Digital Transformation.* His pioneering work has been featured in media worldwide including BBC World and Forbes. He is a TEDx speaker and an educator for Duke CE, IMD, and an adjunct member of Singapore Management University and National University of Singapore. He is an award-winning case writer and a GlobalScot appointed by the First Minister of Scotland.

THE INNOVATION ULTIMATUM

HOW **SIX STRATEGIC TECHNOLOGIES** WILL RESEARCH EVERY BUSINESS IN THE 2020s



By: Steve Brown

Synopsis

Prepares leaders for the 2020s— an accessible guide to the key technologies that will reshape business in the coming decade

Most businesses identify six key digital technologies—artificial intelligence (AI), distributed ledgers and Blockchain, the Internet of Things (IoT), autonomous machines, virtual and augmented reality, and 5G communication— as critical to their relevance and growth over the coming ten years. These new disruptive technologies present significant opportunity for businesses in every industry. The first businesses to understand automation and these transformative technologies will be the ones to reap the greatest rewards in the marketplace. *The Innovation Ultimatum* helps leaders understand the key technologies poised to reshape business in the next decade and prepare their organizations for technology-enabled change. Using straightforward, jargon-free language, this important resource provides a set of strategic questions every leader will need to ask and answer in order to prepare for the impending changes to the business landscape.

Author Steve Brown shares his insights to help leaders take full advantage of the next wave of digital transformation and describes compelling examples of how businesses are already embracing new technologies to optimize operations, create new value, and serve customers in new ways. Written for anyone that wants to understand how automation and new technology will fundamentally restructure business, this book enables readers to:

- Understand the implications of technology-driven change across industrial sectors
- Apply important insights to their own business
- Gain competitive advantage by implementing new technologies
- Prepare for the future of work and understand the skills needed to thrive in a post-automation economy
- Adopt critical digital technologies in any organization

Providing invaluable cutting-edge content, *The Innovation Ultimatum* is a much-needed source of guidance and inspiration for business leaders, board members, C-suite executives, and senior managers who need to prepare their businesses for the future.

Reviews

"Steve Brown understands both business and the future, a rare and valuable combination. In a world where only the agile will succeed, this powerful, accessibly written guidebook to the future prepared me and my company for what lies ahead so that we can seize new opportunities as they emerge."
—Stephen J. Clifton, CEO, Knight Frank Commercial

"Buying this book is a no-brainer. It's well-written, fascinating throughout, and filled with practical advice on ways to prepare your business for the next phase of digital transformation. Get a copy for everybody on your team."
—Robby Swinnen, Former Fortune 50 Senior Executive

About the Author

Steve Brown is the former futurist of Intel Corporation. He now runs Possibility and Purpose, a speaking and consulting business that helps leaders to imagine and build a better future. Brown inspires people to imagine how technology will reshape industries, change how we live, and forever alter the world of work. He promotes a positive future where companies use the latest technologies to create new products and services, optimize operations, empower employees, and delight customers. Brown has been featured on CNN, BBC, Bloomberg TV, and in *The Wall Street Journal, Wired* magazine, amongst other media outlets. He lives in Portland, Oregon, USA.

APRIL – JUNE

TRAINING CALENDAR

The Institute of Bankers Pakistan

2023

VIRTUAL TRAININGS

CLASSROOM TRAININGS

APRIL

	Workshop	Facilitator	Fee	Timings	
08 Saturday	FATF Sanctions and Regulatory Framework of AML/CFT	Kamran Hyder	PKR 9,500 *(Excluding Sales Tax)*	9:00 AM - 1:00 PM	VIRTUAL TRAINING
11 Tuesday	International Standard Demand Guarantee Practice for URDG 758 (ISDGP) & Latest SWIFT MTS on Guarantees	Aqeel Muslim	PKR 9,500 *(Excluding Sales Tax)*	9:00 AM - 1:00 PM	VIRTUAL TRAINING
11 Tuesday	Compliance Management, Regulatory Violations and Precautionary Measures	Beenish Mustafa	PKR 9,500 *(Excluding Sales Tax)*	9:00 AM - 1:00 PM	VIRTUAL TRAINING
12 Wednesday	Impact of Digital Innovation on Banking	Nawroz Muhammad Ali	PKR 9,500 *(Excluding Sales Tax)*	9:00 AM - 1:00 PM	VIRTUAL TRAINING
13 Thursday	Cloud Computing and Security	Murtaza Lightwala	PKR 9,500 *(Excluding Sales Tax)*	9:00 AM - 1:00 PM	VIRTUAL TRAINING
15 Saturday	Payment Systems Security	Syed Muhammad Taha	PKR 9,500 *(Excluding Sales Tax)*	9:00 AM - 1:00 PM	VIRTUAL TRAINING
17 Monday	Green Business Facilitation: Need of the Hour	Dr Syed Asim Ali Bukhari	PKR 9,500 *(Excluding Sales Tax)*	9:00 AM - 1:00 PM	VIRTUAL TRAINING
18 Tuesday	Reporting of Foreign Exchange Returns	Ejaz Ahmed Qadri	PKR 9,500 *(Excluding Sales Tax)*	9:00 AM - 1:00 PM	VIRTUAL TRAINING

OPERATIONS AND GENERAL MANAGEMENT | COMPLIANCE AND REGULATIONS | TRADE FINANCE | CREDIT AND RISK | ISLAMIC FINANCE

MAY

Workshop	Facilitator	Fee	Timings	
TBD Certification in Trade Based Money Laundering	Salim Thobani	PKR 20,000 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD Behavioral Finance: Biases, Emotions and Financial Behavior	Vijay Kumar	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD Detection of ATM Fraud Skimming using Data Analytics	Muhammad Qasid Mehdi	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD Pakistan Single Window	Aamer Nadeem	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD Dynamics of Corporate Governance	Shahbaz Shahid	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD Foreign Exchange Regulations & Compliance for Foreign Currency Accounts	Rana Salim Saleem	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD Operational Control Tools and Techniques for Effective Branch Management	Muhammad Qasid Mehdi	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD Understanding National Risk Assessment and Applying a Risk - Based Approach	Kamran Hyder	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING

OPERATIONS AND GENERAL MANAGEMENT | COMPLIANCE AND REGULATIONS | TRADE FINANCE | CREDIT AND RISK | ISLAMIC FINANCE

MAY

Workshop	Facilitator	Fee	Timings	
TBD — How to Avoid Financial Crimes Risk and Penalties in Branch Banking?	Waheed Zaman	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD — BASEL III – Standards, Issues, Challenges and Implications	Awais Memon	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD Multan — Consumer Mortgage Finance	Hammad Hassan	PKR 15,000 *(Excluding Sales Tax)*	TBD	CLASSROOM TRAINING
TBD Quetta — Detection, Analysis and Reporting of Suspicous Transactions	Ali Madani	PKR 15,000 *(Excluding Sales Tax)*	TBD	CLASSROOM TRAINING

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JUNE

Workshop		Facilitator	Fee	Timings	
TBD	Credit Risk Management and Assessement for Corporate and Commercial Loans	Murtaza Rizvi	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD	Mechanics of Letter of Credit and Import Documentation	Aqeel Muslim	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD	Managing Change and Uncertainty Through Self Confidence	Dr Sayma Zia	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD	Effective Transaction Monitoring System and Closure of Compliance Alerts	Salim Thobani	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD	Auditing Treasury Operations	Faisal Sarwar	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD	Government of Pakistan Ijara Sukuk	Asim Hameed	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD	Liquidity Risk Management for Financial Institutions	Awais Memon	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD	Operational Risk Management for Banks	Ausaf Rasool	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING

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JUNE

Workshop	Facilitator	Fee	Timings	
TBD — Export Finance Scheme (EFS) and Long Term Financing Facility (LTFF)	Mazhar Shahzad	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD — AML/CFT Requirements for Financial Institutions (FI) & Money Service Business (MSB)	Shahzad Hussain	PKR 9,500 *(Excluding Sales Tax)*	TBD	VIRTUAL TRAINING
TBD Lahore — Effective Audit Report Wriring	Arshid Ishaq Rathore	PKR 15,000 *(Excluding Sales Tax)*	TBD	CLASSROOM TRAINING
TBD Peshawar — Tools and Techniques for Deposit Mobilization	Muhammad Nasar Khan	PKR 15,000 *(Excluding Sales Tax)*	TBD	CLASSROOM TRAINING

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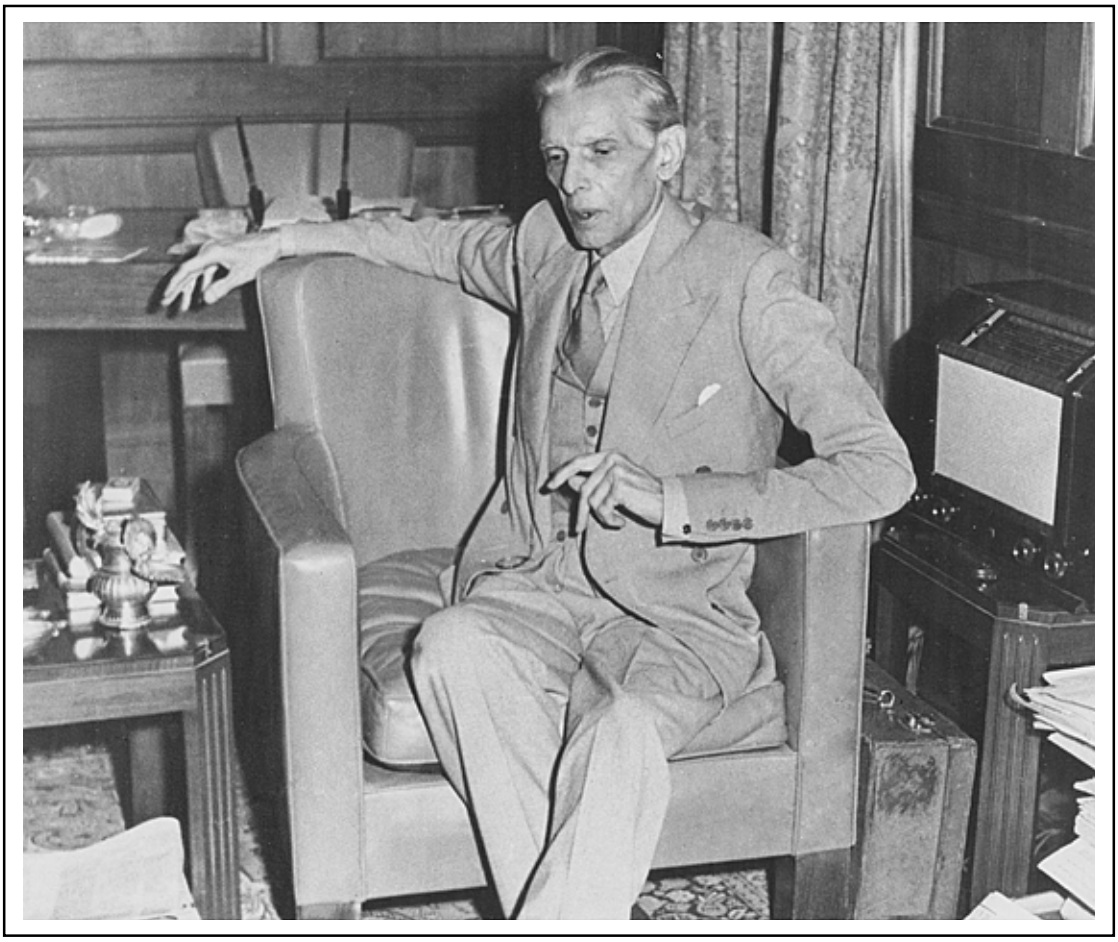

"We ... in general and young men in particular do not know the value of money. A paisa saved today is two paisa tomorrow, four paisa after that and so on and so forth. Because of our addiction to living beyond means and borrowing money we lost our sovereignty over this Sub-continent."

Mohammad Ali Jinnah
Founder of Pakistan
(Ziarat, 1948)

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