# **FUTURE OF FINANCE** REDEFINING THE ROLE OF FINANCE IN AN INDUSTRY 4.0 WORLD







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Dr. Bandar M. H. Hajjar IsDB President

#### FOREWORD

#### SOLUTIONS IN THE FACE OF PILING UP CHALLENGES

The formulation of the new global framework for financing sustainable development, which aligns global financing flows and policies with economic, social and environmental priorities captured by the Sustainable Development Goals (SDGs), has revealed the scale of the financing needs and the necessary measures required to address the challenges of our century. The framework, known as the Addis Ababa Action Agenda, aims to synergize all domestic and international resource flows, policies and international agreements, coordinating the efforts of governments, international organizations, private sector, and civil society in delivering a set of common developmental objectives.

The financial industry components play a key role in efficiently allocating resources in the economy both as facilitators of financial transactions and also as agents making investment decisions. However, so far the current financial system has been integrating the environmental and social dimensions in its practices at a slow pace compared to what is needed in the face of global shifts, as it relentlessly pursues profits, often short-term, at the expense of longterm sustainable value creation.

To be consistent and at the desired scale with the global agenda timeline, the transformation needed goes beyond the current risk return paradigm that drives investor decisions or the GDP maximization paradigm which spurs on the policy makers. Without the development of new financial solutions and policies, the industry is likely to look back one day and say; what we did was too little, too late.

#### THE NEED FOR AN ECONOMIC PARADIGM SHIFT – PUTTING NEW ECONOMIC PRIORITY THROUGH THE FINANCE INDUSTRY LEVERS

The world economies never recovered fully from the 2008 financial crisis. Many solutions have been proposed to better regulate the financial services sector and banking services through tighter controls and conservative prudential regulations which have further exposed the fragility of the industry. The economic stress caused by COVID-19 has heightened the need to redefine financial policies to better support the real economy. A serious reform program ought to fundamentally challenge the conventional financial system and offer an alternative that is both radical and achievable.

Such a transformative agenda needs to build on current trends and the global intellectual discourse on sustainable development while embracing emerging positive institutional, societal, and technological changes as well as heeding the experiences (failures and successes) of both current conventional and Islamic financial systems.

Based on an ethical grounding and understanding of economics, the principles of the Islamic economics model are being reinforced and, thus, can shape a sound economic policy reintroducing fairness to the financial system where equality and inclusiveness are at the forefront of the agenda.

The technological progress of the last decade is disrupting the traditional banking business model. From top-down regulatory pressure to bottom-up customer expectations, trends in the industry are now influencing financial practices and capital allocations. Furthermore, socio-environmental considerations in making investment decisions have set the stage for fairer and more transparent market practices. With its ever-growing asset capitalization, the Islamic finance industry has yet to fully contribute to the global challenge of our century. This will not be without a drastic change to align with its core value and incorporate new changing industrial and retail needs through recent and upcoming technological progress. Strong to its 57 member countries that capture most of the industry levers, the Islamic Development Bank (IsDB) can lead in shaping the future market of, not only Islamic finance, but the finance industry as a whole.

The insights contained in the 'Future of Finance Report' and its critical and unique perspective view of the challenges, opportunities, and solutions provide a valuable baseline and starting point for future development of a new financial architecture. Crises have always been an opportunity for change and reforms. Let us start right now.



Mohammed bin Abdullah Al-Jadaan Minister of Finance

The global economy is witnessing many transformations and changes in all its sectors and components. It is expected that digital technology will be the main driver in all economic and productive sectors. These changes in the technical and digital field are obliging decision makers to

FOREWORD

technical and digital field are obliging decision makers to harness and utilize them to serve economic development in all sectors. The financial sector is one of the most important and prominent sectors, providing valuable opportunities to enhance the role of technology in development worldwide, especially in IsDB Group member countries. This requires action to seize the opportunities and face the challenges arising from such technical developments in the financial sectors of our countries in the Muslim world.

This report comes as an extension of the great role played by the IsDB Group as a major partner in the development of Muslim countries and communities by placing all its financial capabilities and expertise in the field of development at the service of its member countries. The report helps align financial concepts with the digital revolution we are witnessing in this modern era. It also highlights the challenges and opportunities resulting from technological changes, thus assisting the decision-making process for the transition to the world of technology and the gradual transformation towards full digitization of all financial sectors, including financing, banking and other financial services.

The Kingdom of Saudi Arabia realized the importance of utilizing the technical developments witnessed by the world through the Kingdom's Vision 2030, which was based on several themes, including development of the financial sector, which aims to achieve connectivity and integration within the financial sector system and to establish advanced financial markets and sectors using means and tools that contribute to achieving continuous growth under a stable and sustainable financial framework. The Kingdom has undertaken a number of development programmes in this regard, including the establishment of the "Financial Academy" in an effort to upgrade the financial sector in the Kingdom and to develop its outputs, in addition to supporting the activity of the Fintech sector. There are now 11 authorized payment processing companies in the Fintech sector, in addition to 32 companies authorized for piloting. On the other hand, the Central Bank of Saudi Arabia and the Central Bank of the United Arab Emirates announced the results of Project Aber, which aims to understand, study and establish the feasibility of using the distributed ledger technology in financial settlements closely through actual application, understanding the requirements for issuing a common digital currency between the two countries in order to develop cross-border payment systems and use it as a settlement unit for local and cross-border commercial bank transactions. This initiative is considered one of the first global experiences in the field. The Kingdom has also issued a number of licenses for digital banks, including STC Bank and the Saudi Digital Bank, to provide financial services through digital channels in line with the latest developments in the financial and technical sectors.

In the context of the initiative to shift towards a cashless society, the Saudi Central Bank launched the instant payment system in February 2021, allowing instant and scheduled transfers among various banks in the Kingdom around the clock. The initiative is an essential step in repositioning the Kingdom as one of the advanced countries in providing services in the banking and Fintech sectors, transforming it into a pioneering innovation hub in the Fintech sector. The Kingdom has also made many achievements in the financial sector, including the increase in non-cash transactions to 36% of overall transactions in the Kingdom in 2019, exceeding the estimated target of 28% in 2020. This was accomplished through several initiatives that contributed to the development of the instant payment system, the development of the financial market infrastructure and the reduction of risks, which in turn helped create a conducive environment for foreign investments and promote financing for SMEs. This is in addition to consolidating the Kingdom's leading position in the Islamic banking industry, with a share of approximately 20.2% of the assets of that industry worldwide. Digital transformation was a crucial factor in achieving these goals, as the Kingdom aims to be a leading digital country through maximizing the use of big data and providing all services in a digital and self-administered manner.

The world is experiencing a new era in which data and technology will be the main drivers of economy and development. It gives me great pleasure to see the IsDB Group continuing its successful and fruitful progress in alignment with the global transformations in the field of development and economy to serve its member countries. I wish continued economic prosperity and wellbeing for our Muslim Ummah, countries and peoples.

# **ISIamic Development Bank**

|             | Technology Revolution                                | on Climate Change             | Social Pressure  |                          |
|-------------|--|-------------------------------|------------------|--------------------------|
|             |  |                               |                  |                          |
|             | Proposals/Value Chain<br>Component                   | Financial Infrastructure      | Financial Sector | Financial Superstructure |
| Short Term  | Welfare Economy Policy<br>Toolkit                    |                               |                  |                          |
| Medium Term | Alternative Digital Money                            | -1-1-05<br>-1-1-05<br>-1-1-05 |                  |                          |
|             | Alternative Financial<br>Stabilization<br>Mechanisms |                               |                  |                          |
|             | Specialized Development<br>Banks                     |                               |                  |                          |
|             | Social Development<br>Banks                          |                               |                  |                          |
|             | Merchant Islamic Bank                                |                               | 727              |                          |
|             | RateTech   |                               |                  |                          |
| Long Term   | Full Reserve Banking                                 |                               |                  |                          |

#### Figure 1: Summary of policy recommendations and calls for partnerships

#### **DEEP DIVE SECTORIAL REPORTS:**

The "Future of" Report Series will be complemented by Deep Dive Sectorial analysis to provide a more detailed operational analysis of particular sectors.

#### Table 1: Upcoming 'Future of' Reports: Sectorial focus (Country Pilot Engagement Research)

| Sector       | Future of Development Finance   | Future of Sustainable Finance   | Future of Decentralized Finance (DeFi)   |
|--------------|---|---|--|
| Subject      | Multilateral Development Banks<br>business model in financing<br>global goals | Driving force for sustainable<br>financial capital allocation<br>(ESG, SRI (Socially Responsible<br>Investing), Impact financing) | Commercial Bank business model<br>in the decentralization process of<br>the industry |
| Stakeholders | MDBs, MLI   | Institutional Investors, NGOs,<br>Philanthropies  | Central Banks, banks, Regulating institutions  |

#### EXECUTIVE SUMMARY

#### REDEFINING THE ROLE OF FINANCE IN AN INDUSTRY 4.0 World

Finance is both a beneficiary of the technology transformation and a lever of change

The role of the Islamic financial industry in guaranteeing the future economic well-being of our member countries is to deepen financial inclusion and intermediation, and to improve bankability and information generation. This report aims to redesign the Islamic financial system to achieve a socially optimal level of maturity transformation and increase equitable and sustainable funding to productive industries and value chains.

This can be implemented through a progressive and incremental development of better policy tools and instruments, more conducive institutional and regulatory framework, and faster and greater technology adoption by the Islamic financial industry to improve its efficiency, customer experience, inclusion and fairness. The objectives of this new design are to:

- Enable Islamic financial institutions to better respond to modern needs and threats and redefine the developmental role of finance by rechanneling resources towards economic sectors and segments with the highest potential for sustainable value creation;
- Set in motion transformational trends and practices which will change how finance-sensitive government policies operate and broaden the policy toolbox to develop a productivity-focused financial industry capable of accompanying our MCs in their efforts to attain their developmental aspirations;
- Achieve greater financial deepening and promote equitable, environment-friendly, and development-focused financial institutions that are agile, efficient and readily espousing 4.0 technologies to solve the challenges facing our member countries.

# TRENDS IN BANKING AND FINANCE

The traditional business model of banking institutions is being challenged by Fintech and large technology companies.

Technologies such as Big Data, personalized digital services (e.g. Robo-advisers and personalized financial support), Artificial Intelligence (AI) targeting consumer products and credit analytics, and open banking initiatives are reshaping the business of banking leading to quicker credit decisions, improved customer experience (SMEs and individuals), automated and lower (transaction) costs.<sup>1,2</sup> These changes are also happening in the asset management industry and shadow-banking institutions, also increasingly focusing on technology, customer experience and cost reduction.

- Technology induced competition: Technology is also reducing the entry cost for new players. Reducing the barrier to entry will intensify competition the benefit of which will accrue to customers. Cloud computing, robust distribution across different digital channels and increased digitization means customers will increasingly switch to direct banking and Fintech for financial services. This new breed of financial institutions can operate like consumer companies with multiple point of access. They are very agile in optimizing their distribution model to expand their reach beyond the traditional bankable customer.
- Changing attitudes to social and environmental issues. Actors across the spectrum are increasingly internalizing non-financial goals in their decision making. Environmental Social and Governance (ESG) criteria are increasingly gaining prominence, while the (Sustainable Development Goals) SDGs were specifically developed to mobilize private sector financing to serve developmental goals. In addition, there

are concerted efforts to mobilize alternative sources of "social" finance from philanthropic and charitable individuals through crowed-sourcing platforms. Emerging technologies will improve the collection and distribution of charitable funds. With greater transparency, monitoring and control, participation will increase and become more generous.

 The nature of money: Payment systems have benefited greatly from new technologies and Fintech. New digital payments are providing consumers and businesses with seamless payment ecosystems, increasing speed, accessibility, and efficiency. Blockchain technologies are now used for fast and secure cross-border payment, clearing and settlement. Cryptocurrencies and digital money are fast, secure, and low cost. With better regulation, it is only a matter of time before they replace cash altogether.

#### WHERE WE ARE NOW?

The 2020 pandemic and its economic repercussions created a unique momentum for change in which the finance industry will play an important role. The Great Reset initiative of the World Economic Forum is an illustration of the scale of change the world is getting ready to, putting sustainability ahead of economic objectives and rebuilding capitalism based on social and environmental priorities.

A series of disruptions are about to unfold as a result mainly of technological change. Low economic growth, high levels of debt and low interest rates were heightened by recent geopolitical tensions, trade skirmishes and a global pandemic. In the longer run, both climate and demographic concerns will have a greater bearing on financial flows and the global economy more broadly.

Without adequate financial investments and human capital, developing countries will probably not be able to benefit from the potential offered by Industry 4.0. DFIs will continue to play their developmental role by addressing market failures, developing private markets, and promoting transparency and good governance. While structural reforms can improve the efficacy of tax systems and minimize leakages, improve risk management through quicker adoption of new technologies, promote privatepublic partnerships and increase the public's financial literacy, finance badly needs fairness and inclusiveness and the support of the philanthropy community.

# HOW READY ARE WE FOR THE FUTURE?

Scanning through our membership, few countries exhibit a high degree of readiness for the economic development requirements of the future. According to a composite score of diverse factors such as governance, availability of natural resources, adoption of technology, development of human capital, focus on environmental sustainability, and determination to achieve the SDGs, only seven countries were found to have a high level of readiness, 24 had medium readiness, and 26 were not ready for change.

Sizable financing gaps still exist in all major sectors in member countries (agriculture, petrochemicals, mining, construction, textile and social sectors), requiring greater

#### EXECUTIVE SUMMARY

private sector participation and a more strategic deployment of public funds through innovative financial instruments (e.g. tokenization and crowdfunding) and mechanisms (blending and de-risking).

In terms of their strategic orientation vis-à-vis the financial system, countries in the high readiness category will focus on digitization, moving towards sustainable finance and setting guiding principles for others to follow. Countries in the medium readiness category should focus on financial inclusion, capitalize on existing resources to improve economic diversification, and build the needed human capital. Finally, countries in the low readiness group should focus on improving governance and building trust in the system through education and reforms.

# HOW TO UNLOCK THE POTENTIAL?

the economy. This will encompass improving statistical capacity, improving governance, refocusing fiscal policy on national priorities, and improving the functioning and objectives of monetary policy.

MCs need to drive a second agenda towards creating a new financial landscape. This will start with the development of modern, **narrow-focused development investment banks, social banks and merchant banks.** The rapid adoption of new technologies and innovative business models, including Central Bank Digital Currencies (CBDC), Blockchain, Big Data and automation will be key to the success and agility of this new breed of banks. New Islamic banks thus configured will have a clear developmental mandate while additional funding for specific social and environmental outcomes can be achieved through an activist monetary policy.

To unlock the potential of Islamic finance to delivering the Industry 4.0 revolution and bridge the financing gap in key economic sectors, a more balanced growth narrative needs to be defined. Economic policy needs to be geared towards achieving greener and fairer economic growth. The government policy apparatus, including taxation and spending, regulation (related to the financial, institutional, and regulatory environment), monetary policy and social policy must improve social and environmental outcomes.

In the short run, governments will be better served by pushing forward new agendas for innovative fiscal and monetary policies that will enable a better alignment of all economic actors with the welfare objectives of



#### **TABLE OF CONTENTS**

How Will the Industry Look Like in 2030? 1.1 The drivers of the future of finance 1.

- 1.2 Mapping the finance industry's value chain
- 1.3 Global trends and their impact on the finance

Finance Industry – Where Are We Now?

- 2.1 The finance industry is at a historic crossroad
- 2.2 The finance industry needs to change its course
- 2.3 How ready are IsDB countries for the future?

3.

2.

How to Unlock the Potential of IsDB Countries in a Highly Volatile World?

- 3.1 The way to take the road not taken
- 3.2 Monetary system channel
- 3.3 Roadmap to realize the finance industry's potintial

#### KEY QUESTIONS TO BE ANSWERED BY THE PUBLICATION

How will the Finance Industry look like with the Pandemic?

Finance Industry - Where are we now?

How ready are IsDB's countries for the future?

How to unlock the potential of IsDB countries in a highly volatile world?

### INTRODUCTION

In the past 60 years, the world experienced **the longest period of uninterrupted economic growth** and prosperity in history. Driven by unprecedented technological progress, the third industrial revolution created a new standard of living that redefined social dynamics and disrupted environmental ecosystems. Taking the Gross Domestic Product (GDP) as a representation of the real economy, the financial markets are almost ten times bigger than world GDP.<sup>3</sup> This growth has been at the cost of multiple crises that shaped the economic cycle and impacted all the socioenvironmental system that underpins it.

Crisis has always been an opportunity for change and reform. The regulation of the financial system is an enterprise that regulators and government have seriously undertook since 2008. Unfortunately, more than ten years later, the healing measures still fail to address the root causes. Worst, we are now witnessing market phenomena that blind policymakers and economists to providing any substantiated previsions. Over the last 50 years, the financial sector has increased in size and importance against all other sectors of the economy in developed countries priming a shift away from the industrial era. Locked in a risk-return maximization paradigm, the financialization of the economy, driving economic policy and political agenda through the business cycle, has progressively diverted financial resources from the real economy. The externalities of the financial system misallocation of capital has created an unprecedented socioenvironmental peril. Taking the natural resources as a balancing variable to support the economic expansion of the world steered toward GDP maximization, the financial industry is now at a crossroad of its evolution. The SDGs financing gap and ESG framework provide a new pathway for the industry to reform itself and help address the pressing global challenges.

Since inception, **the Islamic finance industry** has witnessed an impressive and constant growth, but old sins cast long shadows. The bear replica of Islamic bank business models to their conventional peers, putting return maximization objectives even in their money market portfolios, has led to skepticism of an ever-growing potential client population. As the current financial system of which Islamic finance is part is undergoing profound reassessment, the industry has the unique opportunity to, not only reform itself but lead the way to a sustainable, stable and fair financial architecture.

With its rapid adoption and difficulty to police, the internet has set the stage of an information age where data were to be the seed of the **fourth industrial revolution**. This spurt of data has led to the witnessed technological advents, creating a technological ecosystem to transform data into decision through a 'data value chain'. Beyond using those new technologies centered on increasing operational efficiency, to remain relevant, the banking business model and the financial architecture will need to integrate this technological ecosystem and leverage it to support this value chain of data. Among this ecosystem, the Distributed Ledger Technology (DLT) will play a critical role for national data sovereignty and the current technological race, led by the developed countries, shows its strategic importance.

The **industry 4.0**, referring to the new industrial revolution driven by digital technologies and powered by green energy, represents an opportunity to face the major perils of the 21st century. The transformative capacity of this new general-purpose technology framework bears the promise to change the economic and social life around the world through digitalization, connectivity and robotic, but will need to be directed to help alleviating global challenges like social pressures and ecological turmoil. The Paris Agreement signed during the COP 21 (Conference of the Parties) in 2015, is already greatly shaping the selection of technologies and manufacturing processes that comply with the global carbon emission reduction commitment. Social instability witnessed around the world have been influenced by the digitalization of social interactions. Technologies applied to organize social life could become a key component in overcoming the global challenges through partnerships and coordinated actions. The new technological solutions have the unique opportunity to associate the quantitative economic wellbeing to the qualitative social wellbeing.

To address the publication key questions, the report will first identify the global change drivers and how they will shape the future of the financial industry. The second part of the report draws a picture of the current challenges of the financial industry and takes stock of IsDB's Member Countries' readiness to face those challenges. The last part of the report starts by articulating a theory of change to navigate the challenges and opportunities of the future and reach the desired outcomes and concludes with a road map and a call for partnership to materialize this vision.





# HOW WILL THE INDUSTRY LOOK LIKE IN 2030?

#### THE DRIVERS OF THE FUTURE OF FINANCE18

| Background of Global Slow Growth       | 18 |
|--|----|
| Driver 1: Climate Change               | 22 |
| Driver 2: The Technological Revolution | 26 |
| Driver 3: Social Pressure              | 30 |

#### MAPPING THE FINANCE INDUSTRY'S VALUE CHAIN 35

# GLOBAL TRENDS AND THEIR IMPACT ON THE FINANCE INDUSTRY

| Future of the Financial Infrastructure | 36 |
|--|----|
| Future of the Financial Institutions   | 42 |
| Future of Financial Instruments        | 54 |

36

# **1.1** THE DRIVERS OF THE FUTURE OF FINANCE

new wave of disruption will likely unfold in the next decade. Foremost among the drivers of disruption will be technology. The fusion of current technologies such as Machine Learning and Blockchain, and the emergence of more advanced technologies such as quantum computing will create opportunities for financial service companies to operate seamlessly, while improving efficiency.

Furthermore, demographic changes across the globe will alter growth dynamics significantly. On the one hand, aging population in advanced and emerging economies will stress social, political and business systems. On the other hand, millennials' changing demands are driving how products and services are formulated to attract and retain customers. Also, concerns about climate change, depletion of natural resources and the accelerating income inequality will force policymakers and practitioners to reevaluate the finance industry's architecture and its role in society.

All of the above, demonstrate accelerating convergence of emerging global agenda with Maqasid al Shariah, which offers the opportunity for the industry to reevaluate its growing path and contribution to address the key challenges of our century.



#### Figure 2: Key drivers for the future of finance

#### **BACKGROUND OF GLOBAL SLOW GROWTH**

By its sheer scale and deep-rooted causes, the Great Recession of 2008 took the world by surprise and propelled global markets into a prolonged period of unprecedented volatility and uncertainty. To tackle the crisis, major world economies coordinated a global expansionary monetary policy the consequence of which we are still witnessing until now. Negative interest rates and substantial Quantitative Easing (QE), that were not so long ago a bewildering possibility, are now a commonly accepted fact of life. However, and arguably, the premature self-imposed tight fiscal policies in advanced economies stifled the green shoots of an early robust recovery and possibly **consigned** the global economy to a decade of anemic growth.

A silver lining in the Great Recession may be that it laid bare major shortcomings of a financial system that is ripe for deep restructuring and tighter regulation. Promises were made to shore up the international financial system such that we do away with the excessive risk-taking practices that mutualize losses and privatize benefits. Unfortunately, the unfolding of the 2020 pandemic reminds us all that despite the global goodwill, little progress has been made to make the global economic and financial system more resilient. The world was taken by surprise and unprepared for an even deeper economic crisis, one that it did not witness since the end of the 19th century.

The "Great Lockdown" affected large swaths of the global economy and disrupted global supply chains affecting simultaneously supply and demand. Faced with unprecedented unemployment levels, social distancing measures and uncertainty about the future, households scaled down consumption considerably. In addition to the egregious extensive loss of lives and livelihoods, the impairment of labor and education outcomes in 2020 and the likelihood of that continuing into 2021 means that human capital accumulation and productivity will be severely compromised, especially in poor communities in developing countries where the technological divide is most pronounced. These factors combined with the weak prepandemic growth trajectory point to the real scenario of a weak economic growth for the most part of the next decade. The global economy is experiencing an unprecedented 'synchronized slowdown' induced by a health crisis. Most of the world economies are estimated to have experienced a recession in 2020. 86% of countries would have experienced negative GDP growth in 2020 contracting the global output by 5.2%.<sup>4</sup> Comparatively, Islamic Development Bank (IsDB) member countries have fared slightly better with an average real GDP growth of -2.3%.

The widespread recession the global economy is experiencing is set to impact negatively potential output for a long period. Developing countries enter the current recession in a much more fragile state compared to the Great Recession of 2008 with governments and corporates having accumulated substantial financial leverage going to 2020 compared to 2007.



#### Figure 3: Proportion of countries with negative GDP growth

Economies at all income levels have registered an **upswing** in government debt in 2020 building on an existing trend that started after the Great Financial Crisis. Advanced economies are a clear outlier in terms of the sheer stock of government debt increasing from 102% of GDP in 2019

to an expected 124% in 2021. However, in relative terms governments in the Middle East, Central Asia and sub-Saharan Africa regions are in a much more leveraged position compared to 2008, their 2020 government debt levels more than 130% higher than 2008 levels.









Another byproduct of the extended expansionary monetary policy and the low growth and low asset returns environment in advanced economies is a significant flow of foreign capital into developing economies in an effort to increase returns. Emerging and developing Asian countries have a 50% increase in external debt service as a percentage of GDP since 2007, followed by the Middle East and Central Asia with almost a 40% increase. Such dependency on foreign denominated debt adds to the financial fragility and the instability of exchange rates. This trend is set to strengthen going forward as advanced economies are expected to experience a further decrease in the long-term interest rate while emerging economies are set to experience the reverse trend, which could exacerbate their ability to sustain an already substantial private and public debt.<sup>5</sup>

#### Figure 6: Increase in Government External Debt Service as a Percentage of GDP (2007-2020)







Growth stimulating policies have to **contend** with a contracted fiscal space and an exceedingly leveraged private balance sheet, thus making the onset of a financial crisis a distinct possibility.

In a scenario of combined economic recession and financial crisis, economies tend to experience an aggravated

and prolonged negative impact on potential output.<sup>6</sup> A recent analysis by the WB has shown that Emerging and Developing Economies could experience as much as 7.6% contraction in potential GDP in a 5-year period following a recession combined with a financial crisis.



#### **DRIVER 1: CLIMATE CHANGE**

average temperature observed from pre-industrial baseline (1850–1900) to now illustrates the stark effect of human activity on increasing global temperatures well above their pre-industrial level.

Global warming reached 1°C above pre-industrial levels in 2017 and its **repercussions** have been increasingly evident with abnormally high frequency of higher temperature episodes, altered rainfall patterns, and extreme events such as floods, heatwaves, droughts and storms.

#### Figure 8: Global surface temperature



Driven by population growth, economic development and an increasingly energy-dependent lifestyle, greenhouse emissions have been accelerating at a terrific pace that would now require urgent and immediate action. To keep global warming below the 1.5°C target, an annual 7.6% decrease in emissions over the next decade is mandatory. At current emission levels the Paris Agreement Targets could only be reached within five years and the opportunity to avoid irreversible climate deregulation would be out of reach (see fig. 9)<sup>7</sup>.



#### **Figure 9: Carbon emission projections**

Economic losses from disasters across the world were estimated to cost 0.19% of global GDP (around \$165 billion) in 2018, with a whopping \$155 billion the result of natural catastrophes.<sup>8,9</sup> Large losses from natural perils tend to be water related, caused by warmer temperatures associated with climate change. In developing regions such as the Middle East, the consequences of climate change are being starkly experienced as both droughts and rising sea levels **endangering** many coastal cities. In a recent study by NASA, it was reported that since 1998 the MENA region has been experiencing the worst drought for over 900 years. In an alarmingly distressing forecast, Germany's Max Planck Institute estimated that temperatures in the MENA region will be 4°C by 2050, with daytime highs reaching 50oC and 200 days of exceptional heat every year, making cities in the region uninhabitable by  $2100.^{10,11}$ 

Developing countries are disproportionally more vulnerable to extreme weather events. These countries are significantly less resilient with low adaptive capacity, fewer dedicated resources to mitigate climate risks, including advance preparation, economic recovery plans and lower insurance penetration rates. These countries have conventionally relied on emergency aids and foreign assistance from developed countries and international relief organizations.



#### Figure 10: Number of catastrophic disasters in the world, 1970-2018

25

The global focus on the climate emergency and the international consensus on the need for action are already accelerating technological innovation in the generation, storage and transmission of renewable energy in addition to improving energy efficiency. The Green Economic agenda is already being integrated in the growth strategies of most advanced economies for the opportunities it presents for enhancing productivity and creating new growth space for a highly skilled workforce.

The climate emergency is also shifting consumer behavior and preferences. A steady trend in increased demand for greener products has been accelerated by the pandemic as more consumers realize the importance of a resilient ecosystem. Over the long run, a larger consumer base will be favoring products with strong environmental credentials, which in turn will be used as a competitive advantage and a marketing lever by companies.<sup>12</sup>

The green market is still driven by governmental policies through the incentive of environmentally friendly technology or the disincentive of high-carbon footprint solutions. Innovation improvement also creates market opportunities with competitive cost-benefit outcomes. The Paris Agreement on Climate Change has triggered a series of national commitments and a quantifiable climate financing gap. The Global Green Growth Institute determined that the gap can approximately be \$16.8 trillion in total including a ramp up in financing for climate change adaptation, of which an estimated \$7.4 to 8.9 trillion will be required for climate finance investment in non-OECD countries.<sup>13</sup>



#### Figure 11: Clean Energy Investment Gap

Source: 2013 and 2030 projected investment data from the IEA OECD and non-OECD estimates extrapolated from IEA data. All figures USD

Those investments could also bring economic benefit. Research has shown the link between GDP per capita, greenhouse gas (GHG) emissions, renewable energy in the total final energy consumption and green investments. The findings demonstrate that green investment could induce a 6.4% increase in GDP per capita, the decline of GHG by 3.08%, and the increase of renewable energy in the total final energy consumption by 5.6%.<sup>14</sup>

The green economy is growing remarkably

A technician works to maintain solar panels at a power plant in Thailand



#### **DRIVER 2: THE TECHNOLOGICAL REVOLUTION**

Human ingenuity has consistently proved the Malthusian pessimists wrong. Doomsayers' narrative about the demographic explosion in the developing world, especially in Africa, and its alleged negative effect on the environment is still prevalent even without any solid scientific backing. What is observed however is an unprecedented technological revolution that is set to change every aspect of our lives beyond recognition.

Moore's Law held steadfast past any prior expectations over the last half century. As a direct result, data storage and processing crossed a significant threshold in the last decade and that brought about a completely new way for automation. Big Data and Machine Learning, precise measurement of the environment through advanced sensors and the connectiveness of the Internet of Things (IoT) practically expanded the breadth of automated machines' purview beyond human capabilities. From Google's Alexa to Boston Dynamic's athletic Atlas, the dawn of the intelligent machines is well underway.

#### **TECHNOLOGICAL ECOSYSTEM**

The digital transformation is primarily sourced through the production of data fed into a technological ecosystem that aim to make intelligible the mass of information produced by the connected devices. Global Internet Protocol (IP) traffic, a proxy for data flows, grew from about 100 gigabytes (GB) per day in 1992 to more than 45,000 GB per second in 2017 and yet the world is only in the early days of the data-driven economy. By 2022 global IP traffic is projected to reach 150,700 GB per second, fueled by more and more people coming online for the first time and by the expansion of IoT.

The technologies that transform data into usable intelligence, supported by an important data warehouse infrastructure, is a key factor to unleash the potential economic spillover from digitalization. Physical and digital data protection is then of strategic importance to safeguard sovereignty across the data value chain. The Distributed Ledger Technology (DLT), commonly known as Blockchain, enables data flow with a very high level of control over data privacy and replicability in a centralized, and now decentralized fashion with a satisfactory level of protection and trust. At the lower levels of the data value chain, information content is limited, and therefore the scope for value generation is also low. Value increases as the information and knowledge content rises.

The greatest economic spillover comes from AI and algorithms that can feed into a digital and even physical automation processes.

The United States and China account for 75% of all patents related to Blockchain technologies, 50% of global spending on IoT, and more than 75% of the world market for public cloud computing. And, perhaps most strikingly, they account for 90% of the market capitalization value of the world's 70 largest digital platforms.

Countries at all levels of development risk becoming mere providers of raw data to digital platforms that will control the data processing and analytical process while monetizing the digital intelligence produced with those data by the platform owners. Countries may find themselves in subordinate positions, with value and data being concentrated in a few global platforms and other lead multinational enterprises. Countries with limited capabilities to turn digital data into digital intelligence and business opportunities are at a clear disadvantage when it comes to value creation. To prevent increased dependence in the data-driven global economy, national development strategies should seek to promote digital upgrading (value addition), and to enhance domestic capacities to gain control over their national data value chain.



#### Figure 12: Technological Ecosystem – the Data Value Chain

Digital developments will have implications for virtually all the SDGs, and will affect all countries, sectors and stakeholders. The expansion of the digital economy creates many new economic opportunities.

#### ECONOMIC IMPACT OF DIGITALIZATION

It is often heard that the greatest impact of the digitalization process of the economy will be on the workforce. With an estimated 50% impact on world economies from adapting currently demonstrated automation technology, 1.2 billion employees can be affected and \$14.6 trillion in wages. It is important to note that the percentage of occupations that can be fully automated using currently demonstrated technology is actually small (less than 5%). In fact, even if whole occupations are not automated, partial automation (where only some activities that make up an occupation are automated) will affect almost all occupations to a greater or lesser degree. This transformative process is relative to the economic structure, the level of wages, and the size and dynamics of the workforce. Thus, just four countries (China, India, Japan and the United States) account for just over half of this totals impact.<sup>15</sup>



#### **Figure 13: AI Expected Revenue**

The impact on productivity and economic performance by the integration of technological solutions across all sectors. An estimated \$13 trillion could be added to global GDP by 2030 through digitization, automation, and AI as these technologies create major new business opportunities and productivity gains are reinvested in economies. Financial Industry revenue contribution to digitalization is on the top three with about 85%.





Source: UNCTAD, adapted from Mayer, 2018; Rehnberg and Ponte, 2018; and Sturgeon, 2017

According to the McKinsey Global Institute, the benefits captured from digital technologies by developed countries is estimate at 12%. Emerging economies are even further behind, with countries in the Middle East capturing less than 10% of their digital potential. With more than half the world's population still offline, the potential for digitalization to drive growth represents an important opportunity for world economies.<sup>16</sup>

Depending on the definition, estimates of the size of the digital economy range from 4.5 to 15.5% of world GDP. At present, the world is characterized by a yawning gap between the under-connected and the hyper-digitalized countries (1/5 persons connected to internet in LDMCs versus 4/5 in developed countries). Regarding value added in the information and communications technology sector, the United States and China together account for almost 40% of the world's total digital technology sector. In 2018, digitally deliverable service exports amounted to \$2.9 trillion, or 50% of global services exports. In LDMCs, such services accounted for an estimated 16% of total services exports, and they more than tripled from 2005 to 2018.<sup>17</sup>

#### **DECENTRALIZED FINANCE (DEFI)**

By design, the financial industry follows a centralized model which imposes a heavy and costly intermediation. The latest technological advent has challenged the hegemonic position of the current financial institutions from different aspects: whether with money legal tenders through cryptography, money creation through cryptocurrencies or money transaction through distributed ledger technology (DLT), which uses cryptography as a fundamental tool to understand DeFi.

DLT can be defined as a digital system for recording the information to avoid tampering. It achieves that by simultaneously deploying and maintaining databases across several locations or among multiple participants through a consensus protocol, unlike traditional databases that have one central data store or administration functionality. Blockchain is a subset of DLT in that it represents a particular protocol that uses blocks of data that are rubber-stamped using a cryptographic signature called a hash. There are other protocols that enable the network to reach a consensus beyond the Blockchain and the technology is yet to mature. The most plausible evolution will be that the context requirement will drive the protocol adoption and we can image various protocols in different contexts. Blockchain, with one of its first applications in the cryptocurrency 'bitcoin', has revealed the potential of the technology as well as its drawbacks on scale, energy consumptions and reward model to sustain the network.

This technology is supporting the process of disintermediation of the banking industry. It disrupted the financial industry through its capacity to process, validate or authenticate transactions or other types of data exchanges in a decentralized, more transparent, accountable, efficient and secure way. Despite regulatory challenges, the banking industry has already implemented pilot initiatives and even executed transactions based on digital currency in closed networks. The potential of DLT for banks in remittances for cross-border payments, currently dominated by the Swift and Western Union, could save about \$4 billion a year, and significantly reduce the number of intermediaries. Ripple connects banks and payments providers via RippleNet through its own cryptocurrency and its private, non-distributed ledger, which relies on a limited ecosystem of correspondent banks. The network can conduct cross-border payments settled in minutes rather than in days as with current systems.<sup>18</sup>

The use case in the humanitarian sector, whether on digital identity (WFP Building Blocks<sup>19</sup>) or complementary cryptocurrency (Sikka in Nepal<sup>20</sup>), are already providing strong bases for the technology capacity to broaden financial inclusion, stimulate local and international exchange, and create new opportunities for entrepreneurs and innovators. It has also highlighted the challenges pertaining to data privacy, the difficulty to have a full end-to-end system and the legal and regulatory hurdles that can jeopardize its promise to improve efficiency, bureaucracy, cost, and cyber security related issues to safeguard the integrity of the system.<sup>21</sup>

Decentralized Finance or Open Finance is thus an experimental form of a financial system without central financial intermediations under a digital governing authority. Such platform can manage brokerages, exchanges, or bank activity by rules embedded in the software called smart contracts, the most common on Blockchain being Ethereum. As of October 2020, over \$11 billion was deposited in various decentralized finance protocols, which represents more than a tenfold growth during 2020. 'Know You Costumer' and anti-money laundering regulations, interest and asset pricing volatility and even potential hacks of the systems remain important challenges for such platforms to provide customer protection and service to become mainstream.<sup>22</sup>

Islamic Banks have yet to fully leverage the opportunity offered by fintech. According to the 2020 Global Islamic Bankers' Survey conducted by CIBAFI, the rapid developments in technology, especially mobile technology, indicated that "information technology" has become the topmost concern for Islamic Banks followed by consumer attraction, relation and retention<sup>23</sup>. Mainstreaming the technologies through the business processes not just to increase efficiency but as growth path will promise to not only change the bank services quality but can support a profound transformation of the banking experience and redefine its scope. This technological revolution will continue to push the boundaries of efficiency and new innovative business models are going to emerge over the foreseeable future as the full potential of the new technologies is realized globally and across economic sectors.



#### **DRIVER 3: SOCIAL PRESSURE**

#### THE AGING WORLD POPULATION

The world population is projected to reach 8.55 billion by 2030 and 9.77 billion by 2050.<sup>24</sup> The middle projected annual

population growth rate is 1.1%, a significant decrease compared to the growth rate of 1.24%.



#### **Figure 15: Projected world population**

#### Figure 16: World population projection (2019-2050); Proportion by age



Thanks to a considerable reduction in premature mortality and extension of life expectancy, every country in the world is experiencing growth in the number and proportion of older persons in their populations. According to the UN, the proportion of people in the world aged 65 years and over will grow from 9% in 2019 to 16% by 2050. In Europe and North America, the proportion is expected to be 25% by 2050.<sup>25</sup> In countries of the Organisation of Islamic Cooperation (OIC), the share of the elderly in the total population is expected to increase from 6.7% in 2015 to 9.3% by 2030. OIC countries are also projected to have 15% of the world's elderly by 2030.<sup>26</sup>

Population aging is becoming one of the most significant social transformations of the twenty-first century, with implications for nearly all sectors of society, including labor and financial markets. In the future many countries are likely to face fiscal and political pressures in relation to public systems of health care, pensions and social protections for a growing older population. However, for most of the developing world, the age transition provides a demographic dividend as a larger share of the population reaches their productive prime and drives economic growth. The UN estimates the impact on economic growth of such demographic dynamic at 1 to 1.7 percentage points of GDP.

| Region   | Start of<br>first dividend | Peak dividend (dividend year) |           | Average dividend, 100 years |       |        |      |
|----------|----------------------------|-------------------------------|-----------|-----------------------------|-------|--------|------|
|          |                            | FIRST                         | SECOND    | вотн                        | FIRST | SECOND | вотн |
| Africa   | 1993                       | 0.82 (25)                     | 1.33 (51) | 1.80 (48)                   | 0.32  | 0.67   | 1.00 |
| Americas | 1975                       | 0.84 (19)                     | 1.15 (43) | 1.51 (33)                   | 0.15  | 0.67   | 0.82 |
| Asia     | 1973                       | 1.38 (20)                     | 1.88 (42) | 2.35 (34)                   | 0.18  | 0.72   | 0.90 |
| Europe   | 1962                       | 0.68 (22)                     | 1.24 (37) | 1.35 (28)                   | -0.08 | 0.56   | 0.48 |
| Oceania  | 1974                       | 0.66 (14)                     | 1.24 (38) | 1.50 (28)                   | 0.09  | 0.71   | 0.80 |

#### Table 2: Summary of first and second dividend estimates by region

Source: United Nations, Technical Paper No. 2017/1: "Support Ratios and Demographic Dividends: Estimates for the World" Note: Based on 112 countries for which both first and second dividend estimates are available

Africa started the period of the first demographic dividend in the mid-90's and is now well beyond the peak of its first demographic dividend. However, without the

proper institutional, financial and physical infrastructure, the returns on the favorable demographic conditions are meager. The expansion of working-age population is not fully benefiting from its potential due to the combined factors keeping Africa's productivity at very low levels. Africa has the biggest potential to be the next engine of global growth over the next decade. But if the underlying productivity improving conditions are not put in place in a timely manner while the population dynamic is precipitately reversed under Malthusian fears, Africa could be very well locked in a situation of chronic underdevelopment.

#### THE INEQUALITY PANDEMIC

In a recent report the UN documented the likely effect of four megatrends on inequality, namely technological innovation, climate change, urbanization and international migration. These megatrends starting with disruptive technologies will result in significantly worsening global inequality. Automation is expected to worsen wage inequality in developing countries and displace millions of jobs, while climate change has already affected vulnerable communities throughout sub-Saharan Africa, south east Asia and Latin America, and the situation will get worse by 2030. Although urbanization offers opportunities for economic growth and employment, but it often results in widespread poverty and polarization. Lastly, international migration can lessen inequality between countries. If unregulated it can result in disruption in the labor markets of the destination countries and significant brain drain and skill shortage in developing countries, both of which can lead to worsening outcomes.

Since 1990, income inequality has increased in most developed countries and some middle-income countries. It is also true that globally several hundred million people have been lifted out of poverty thanks to the economic development of China and India. However, a deeper scrutiny of the data shows that absolute income inequality has been on the rise, while wealth is increasingly being concentrated in the upper percentiles of the wealth distribution.<sup>27,28</sup> **Moreover, the current pandemic has hit the poorest the most and is threatening to reverse all poverty reduction progress made over the last two decades.**<sup>29</sup>

Beyond fairness considerations, studies show that wealth concentration dampens overall economic growth. A one percentage difference in the Gini index is correlated with 0.07% difference in GDP growth. This means that countries with more equally distributed wealth will significantly grow at a higher pace compared to counties with more inequality. The effects of re-balancing the wealth share have most impact on the lower quantile. A one percentage point increase of the income share of the poorer 20% can increase GDP growth by 0.38 percentage.<sup>30</sup>

The drivers behind the widening income and wealth gap will become more pervasive in the next ten years. The shortfalls from globalization, financial returns accruing to wealthy people<sup>31</sup>, illicit flows and corruption, tax avoidance and tax evasion and many more other factors have also contributed to widening income gap. The damage of rising inequality has been pervasive and wide-reaching. For example, the rise of the political right and populism in the developed world has been a direct consequence of inequality and dropping living standards, often ascribed to one sided globalization and liberal economic policies. The social unrest that started in the Middle East in 2010 can also be traced to increasing discontent over lack of jobs and opportunities, while the region was going through an economic boom. Finally, increasing migratory flow and displacement will only result in more interracial tension and unrest.

## Figure 17: Estimate of the share of jobs at risk of being lost to automation as a result of AI and advanced technologies by study



**Figure 18: AI expected revenue** 



The wealthy get wealthier: high income individuals also have high returns on their investments.

Those drivers highlight the interdependencies between the economic rational with the socio-environmental and the overwhelming externalities arising. To begin to address comprehensively those challenges, the economic compass needs to be driven by indicator that factors in those externalities and drive policy decision toward safeguarding the socio-environmental imperatives along the economic prosperity objectives.


# **1.2** MAPPING THE FINANCE INDUSTRY'S VALUE CHAIN

The Finance industry has the objective of matching supply and demand for capital. This mechanism is based on the transfer of surplus capital for the purpose of improving future income. Upstream of the financial services value chain there is the investor or saver who has surplus capital and either invests or saves the surplus in a financial institution with an expectation of returns or donates the money for a social cause. Capital ultimately flows to the sectors contributing to the growth of the economy. Governments and regulatory bodies act as controllers of the economy and the financial system in any nation. Their primary role is to enable better governance by creating policy frameworks, create investment channels for sustainable growth, and ensure the effectiveness of investments. The following pages discuss the current state of affairs, the challenges faced, and opportunity areas where the finance institutions need to contribute to sustainable economic growth.



#### Figure 19: The finance value chain

### .3 LOBAL TRENDS AND THEIR I

### GLOBAL TRENDS AND THEIR IMPACT ON THE FINANCE INDUSTRY

Future of the financial infrastructure

he global trends affecting the finance industry are tackled in this section from a value chain perspective, starting from money to real economic markets.

#### **FUTURE OF MONEY**

Money and the idea of using it for exchange have evolved since the dawn of humanity. From metal coins to paper, bank accounts to e-wallets, money has taken various shapes. Over the last decade, the payment industry has recorded major strides in innovation, with new providers, new platforms and new payment tools being launched almost every year. Technology has changed consumer and business expectations of payments. This enables higher convergence of upcoming new payment methods and increased cashless payments, achieving quicker transactions. The enabling technology offer innovative ways to address illicit flows of money like money laundering, antiterror and fiscal evasion.

#### FINTECH ADVANCEMENTS IN PAYMENTS

The revolutionary changes in the way global payments and transactions are conducted are a direct result of a Fintechled progress. The initial entry into the digital payments ecosystem came from the Big Tech companies and e-commerce giants.

 GAFA (Google, Amazon, Facebook, and Amazon), Samsung Pay, Alipay, PayPal and Paytm are leading the way in the digital payments sphere by providing the consumers with seamless payment ecosystems. They are collaborating with banks and taking the concept of payment to a new level by increasing speed and providing accessibility across different channels. • The global payments market is expected to reach \$2 trillion by the end of 2025, this is mainly due to the demand for real-time payments by the consumers.<sup>32</sup>

#### **CROSS-BORDER PAYMENTS**

One caveat in digital payments currently is that it primarily supports domestic transactions. Customers who seek real-time payments for cross-border transactions, need a broader platform for their digital payments. To speed up the payment process across borders, which is still heavily reliant on the inefficient, message based SWIFT system, Blockchain and more broadly DLT have been resonating in the financial sector for a few years now. Financial institutions are exploring ways to use Blockchain technology to improve clearing and settlement processes. In the future, DLT with the help of cryptocurrencies can digitally integrate cross-border payment systems to create a seamless payments ecosystem for all cross-border payments, be they interbank cross-border payments, cross-border remittances or corporate payments.

- Fnality will create digital currencies of USD, CAD, EUR, GBP, and JPY, which will be wholly backed by central banks and only available to financial institutions.
- JP Morgan is trialing JPM Coin, its own cryptocurrency, to settle transactions of its wholesale payments business.
- Al Hilal bank used blockchain to sell and settle sukuk.
- Emirates Islamic integrated blockchain in chequebased payments processes.

# USE OF BLOCKCHAIN AND CRYPTOCURRENCIES

Blockchain-enabled cryptocurrencies have until now acted like an addition rather than substitute to the global inventory of money. While cryptocurrencies have advantages such as security, speed, minimal transaction fees, ease of storage, and relevance in the digital era, the main challenge with cryptocurrencies is that they are currently not regulated and thus are highly prone to cyberattacks and financial and criminal misuse.

Some countries with historically strong banking industries including Japan, Canada, Germany, and the US are trialing cryptocurrencies at an official level and have indirectly approved their use for transactions. For instance, Germany passed a bill allowing banks to sell and store cryptocurrencies, South Korea has designed a bill to directly regulate cryptocurrencies, and regulators in Hong Kong plan to introduce new frameworks for cryptocurrency exchanges. New Zealand allowed companies to pay salaries using cryptocurrencies that are pegged and directly convertible to cash.

With central banks planning to develop cryptocurrencies that are pegged to a fiat currency, and consumers wanting to use them, adoption rates will drive the timeline for their mainstream use. Cryptocurrencies can potentially replace cash by 2030.<sup>33</sup>

- According to independent research agencies, the market for cryptocurrency is expected to grow at 11.9% to \$1.5 trillion during the period 2019-2024.<sup>34</sup>
- Often the growth of cryptocurrencies is discussed in the context of the growth of the Web. The growth of crypto assets is compared to the growth of internet during the period 1991-95. Cryptocurrencies such as Tether, backed by \$funds and assets and Digix, backed

by gold, end up getting universally accepted as legal tenders by governments across the world.<sup>35</sup>

- The central banks of Britain, Japan, the euro zone, Sweden and Switzerland have grouped up with the Bank for International Settlements (BIS) to assess potential use cases for such currencies.<sup>1</sup>
- Swiss Bankers Association issued guidelines for 250-plus banks to follow for doing business with cryptocurrency or blockchain-based startups.<sup>2</sup>
- Germany passed a bill allowing banks to sell and store cryptocurrencies
- South Korea has designed a bill to directly regulate cryptocurrencies.<sup>3</sup>
- Hong Kong's regulators plan to introduce new frameworks for cryptocurrency exchanges like KYC rules, as well as storage of crypto and security protocols for increased investor protection.<sup>4</sup>

To curb challenges related to cyberattacks, it is extremely critical for regulatory bodies to establish the right institutions and tools to closely monitor the agencies or platforms that facilitate the exchange of cryptocurrencies. Future regulations would require providers to become licensed, maintain customer due diligence, keep extensive records, report suspicious transactions, ensure data protection, respect privacy rules, and screen all transactions for compliance with targeted financial sanctions from regulatory bodies. For instance, the Financial Action Task Force has issued some initial guidelines on cryptocurrency to focus on policies for preventing money laundering and terrorist funding through cryptocurrencies.<sup>36</sup>

#### **CURRENT SCENARIO**

- Slow interbank transactions
- High cost of international transactions
- Security and value issues related to cryptocurrencies

#### **EMERGING TRENDS**

- Use of blockchain for inter-bank fund transfers
- Fiat currency backed cryptocurrencies
- Stronger regulations to monitor digital payments and exchange of cryptocurrencies

#### **FUTURE OF DATA**

Technology is transforming financial services for good. It is the only disruptor that is challenging the status quo and has the potential to increase the reach of financial services and improve the efficiency of existing systems. Technology has allowed the entry of a new set of players in the financial services industry - Fintech and Large Tech companies – who are proving to be a game changer for the industry. To remain relevant in this era of technology, banks and financial institutions have started partnering with technology companies to reimagine their role and improve their customer experience.

#### **INFORMATION IS THE VANTAGE POINT**

One of the main advantages of financial institutions is their access to and ownership of vast amounts of financial data and customer information, which they use to provide better customer experiences and customized solutions. The pool of data available to financial institutions is much more than financial results and asset prices. It also includes data generated by business processes, machine generated data and data from social media and user systems. The availability of information is reshaping the strategies of various banks and investment institutions.

#### **EXPANDING THE CREDIT-BASE**

Financial institutions are collecting borrower information on spending patterns, late and default payments, and life events. With data analysis tools, banks will expand their reach and extend credit facilities to consumers that were earlier perceived to be too risky. In addition to correctly risk profiling customers, corporate banks will start considering data as an asset and use it for securitization. For example, the use of predictive analytics models like the FICO scoring system can analyze consumers' credit history, loan or credit applications, and other data to assure the customer will not default their payments in the future. The system can also join together structured customer feedback with social media comments and other unstructured data to create a comprehensive customer profile, thus limiting exposure to risk. Researchers are working on models to value information and data, which might be used as securities for loans.

These technologies can be deployed at scale to serve unbanked populations in the developing world where data is not as readily available to financial institutions. Microfinance financial institutions and Fintech will increasingly deploy unconventional data and analytics to increase penetration in these markets.

#### PERSONALIZATION OF SERVICES

To replicate the customer relationship management model online, financial institutions have also been collaborating with third-party providers to gather information on customers using third-party services online. These collaborations are further intended towards developing a digital assistant that helps personalize conversations and aids business development. Banks and brokerage houses are investing in Al-based conversational banking to drive personalization and enable on-demand support for customers. For instance, Bank of America's Erica chatbot sends personalized recommendations and advice after analyzing customer information.

One of the main ways to monetize data is to team up with retail firms to offer customer specific deals and services that align with their interests. Banks such as Lloyds and Santander have partnered with data advertising firm Cardlytics to offer customers discounts at shops that a customer frequently visits.

#### **RISE OF OPEN BANKING**

Open banking is another platform, through which data sharing is often accomplished over an application programming interface (API). It has become apparent that open business models and APIs will drive the future of banking. Open banking is the process of opening the banks' internal services in the form of open, standard, and secured APIs to the external world to be used by thirdparty developers to provide services and applications based on the existing financial institutions. In open banking, data is primarily used to share information among the entities in the financial ecosystem. With the onset of open banking and interconnectivity of institutions, one security breach incident will have a chain-reaction throughout the industry. As there are inherent risks in sharing data through open banking, it is critical to develop processes and governance to streamline the systems required for data access.

#### DATA-PRIVACY RELATED ISSUES

information is a boon to the industry, it also presents significant challenges related to data privacy, security, and regulation. Cyberattacks against financial services firms increased by over 70% in 2017, which shows the sector's vulnerability to security threats due to all kinds of sensitive information owned and managed by the banks and financial institutions. These threats are increasingly being acknowledged as one of the most critical risk exposures faced by the banks. Risk experts believe that cybersecurity is more than a technology challenge and therefore organizations should have a separate security function that is independent of other considerations.

- HSBC appointed the chief information security officer of Bank of England to strengthen its cyber risk strategy.
- BBVA appointed a Chief Information Security Officer (CISO) to oversee the bank's Information Security and Engineering Risk functions.
- Alizz Islamic Bank utilizes the 'three lines of defense' model: business units, risk management team, and internal audits to control cyber risk.
- Moody's appointed a global head of cyber risk services for Moody's Investors Services to oversee cyber risk in credit analysis.

In the future, banks and financial institutions will need to closely supervise and monitor data to protect consumer data and avoid cyber-hazards. To fight cybercrime and fraud, financial institutions are investing in systems and people to keep up with increasingly sophisticated cyberattacks. To do this effectively, financial institutions will have to develop an understanding of the specific environment, analyze its possible threats, and then devise the strategies needed to counter these malicious threats. Financial institutions will have to build risk reducing systems for product

#### Box 1: Government recent experience with data protection

Concerns around protecting consumer information drove the European Union to create new laws including the General Data Protection Regulation (GDPR), Payment Services Directive (PSD2), and the Markets in Financial Instruments Directive (MiFID I/II), which require companies to implement tighter security to protect consumer information. Like the EU's GDPR, Japan's Personal Information Protection Act focuses on the use of personal information for business. Regulations like these can put more obligations on the companies that collect, store, process and analyze consumer data by the regulatory bodies.

Governments are also experimenting with the new frameworks like regulatory sandboxes that assess the consequences of failure and maintain overall safety of the financial ecosystem. Countries including Australia, China, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, and Thailand are already working on their Fintech sandboxes. Bank Negara Malaysia (central bank of Malaysia) was one of the earliest regulators to implement a regulatory sandbox, under which eight companies including financial product aggregation, digital remittance, peer-to-peer takaful and digital insurance are being tested.\*

\* Source: Government of Malaysia

development, maintenance, and cyber security. They will also have to setup separate cybersecurity units to fight cybercrime, needing to develop teams of data scientists, bankers, payment specialists, and other technology experts working together to protect the institution from data related threats.

In addition, the expansion of privacy laws globally will mandate finance companies to consider risks related to data privacy seriously and take steps to mitigate them effectively.

#### **CURRENT SCENARIO**

- Finance companies collaborating with technology players to offer improved products and remain relevant
- Monetization of data and personalization of services

#### **EMERGING TRENDS**

- Expansion of data privacy related regulations
- Setting up specialized cybersecurity centers in banks and finance institutions



1.3

# GLOBAL TRENDS AND THEIR IMPACT ON THE FINANCE INDUSTRY

Future of the financial institutions

# FUTURE OF PROFIT-ORIENTED BANKING INSTITUTIONS

#### **BANKS LOSING TO FINTECH COMPANIES**

Currently, the challenge for banks is to increase access to their services and develop products based on consumer preferences. While global banks have been increasing their operational budgets, a large chunk of these resources are used to improve and maintain existing systems, developing new infrastructure, and complying with regulations, hence leaving only fewer resources available for investments in new product development.<sup>37</sup> This is where the non-traditional Fintech companies are challenging traditional banks. The introduction of AWS for Banking in 2017 reduced the complexity and cost of technology for financial companies and as such the world is nearing the point at which any company can start providing financial services.<sup>38</sup>

Consumer apps across multiple categories including Uber, Houzz, and Lyft are broadening their services to include banking and financial services. Soon, Large Techs including Google, Amazon, and Facebook will enter the banking space with consumer banking and credit cards.<sup>39,40</sup> Technology plays a key role in increasing financial inclusion, from providing information to low-cost product delivery channels to those who are excluded from the traditional banking sector. This transformation of consumer and technology companies helps increase consumers' access to banking products and constitutes a veritable threat to the traditional banking systems.<sup>41</sup>

#### **BANKS OF THE FUTURE**

Strong external forces are reshaping the banking industry and creating an imperative for change. Challenged with changing consumer expectations, emerging technologies and new business models, banks will start strategizing to help themselves prepare for the future into 2030.<sup>42</sup> In the next decade, to fight intense competition from new banking institutions, banks will primarily prioritize the following:

#### Figure 20: Priorities of banks for strengthening their position in the future



**Robust distribution:** The most crucial aspect of the future of banking is to optimize distribution networks. Banks have always been associated with a physical location and built to project strength, stability, and safety. Even now, when the industry is embracing digitization, certain banking products still require customers to visit a branch, which is a challenge for customers looking for convenience and instant solutions. To stay competitive and provide a holistic experience, banks will develop shared platforms that distribute products across channels. Banking across developed and emerging economies will adopt **direct banking** – an online or mobileonly bank.<sup>43</sup> Banks will start operating the way consumer product companies do with various touchpoints including flagship stores, community centers and expanded ATMs. Advisers and product specialists will be present across all these channels and therefore banks will require reskilling its employees to be fluent in all the products that the bank offers, while also having technology prowess to provide solutions to any problem raised by customers.

In developing markets, where banking penetration is low and inherent challenges related to seamless internet connectivity exist, banks will partner with Fintech to create alternative distribution models and expand mobile banking systems (such as M-PESA in Kenya). With Africa's mobile-only nature, and the success of mobile money, digital banking is growing in the region with the launch of companies such as Bank Zero Mutual Bank, Tyme Bank, and Discovery Bank that have introduced app-based banking services in Southern African countries.<sup>44</sup> With 4G mobile connectivity expected to become standard in Africa in the next five years, usage of internet banking and expansion of Fintech is expected to gain traction.

**Customer-centric models:** Banks are realizing the importance of engaging customers and building product sets to enhance customer experience. Still at a very nascent stage, banks are investing in customer analytics to understand a customer's value potential, track spending patterns, and make targeted offers. Most banks carry vast product sets with subtle differences, which increases the cost of operations, and also brings in regulatory challenges, but still does not attract the customers, most of whom

are millennials. To improve products and experiences for customers – an important chunk of whom are millennials – banks will consider the following:<sup>45</sup>

- 1. Think about the needs for customers and **build products** that match their needs
- 2. **Design uniform customer experiences** across the lifecycle of a customer
- 3. Employ analytic capabilities to **get intelligence on predicting customer's next life events**, understanding a customer's lifestyle, and recognize delivery methods best suited for them
- South Africa's Standard Bank closed 100 branches to address customers' preferences for branchless banking.
- Bank of America's Erica chatbot sends personalized recommendations and advise after analyzing customer data.
- Wells Fargo piloted a Bot for Messenger to engage customers on social media platforms.

**Simplified operating models:** Banks have traditionally grown either by acquiring other institutions or by developing new products internally. In most traditional banks, every product or business unit would have separate operations, technologies and risk management processes.<sup>46</sup> Complexity and redundancy drive high cost, poor customer experience, operational risks and regulatory challenges. It is crucial for banks to simplify these processes, technologies and back-office operations. Banks need to consider their business models with a view to serving their customers' changing needs. Redesigning the bank's operating model will require a

fundamental shift in how banks think about their operations with integrated distribution, shared infrastructure, risk management at customer level and streamlined compliance processes.

- JP Morgan Chase, Citigroup, and Wells Fargo, and US Bank have signed data sharing agreements with seven fin-techs through application programming interfaces.
- National Bank of Bahrain (NBB) adopted technologies to enable it to deliver new open banking services to its customers.
- Al Baraka Islamic Bank offered 25 APIs allowing third parties to build financial products and services on its platform.
- Discovery Banking launched as the world's first behavioral bank, a tech-led bank that is aimed at incentivizing behavioral change.

Some of the leading banks across the world are learning from consumer product companies and do not own their entire value chain. Companies like Apple focus on the product design, marketing, distribution, and outsource the rest to third-party specialists. Banks will eventually only focus on core functions of customer and risk, while outsourcing all other ancillary processes.

**Innovation:** Currently, banks are not known as places where innovation is primary. Innovation does not only mean new products or new customer experience. It translates to doing things differently across the entire business model. Banks will organize and manage differently by enabling talent, becoming agile in their processes and partnering with outside organizations to promote innovation and creative thinking within the organization.

**Risk management:** Since the Global Financial Crisis (GFC), regulators and risk management professionals at banks have made efforts to control the forces that triggered it. The next crisis however is expected to be different, triggered by non-traditional risks that create exposure across business units in an organization.<sup>47</sup> The economic slowdown due to several geopolitical factors is only one of the potential challenges banks are facing now. New threats related to technological innovation are emerging daily. As institutions consider new ways to managing risk effectively, they will consider the following imperatives for the future of risk management:<sup>48</sup>

- 1. Focus on strategic risk: Banks are in a period of high risks from external sources including geopolitical risk, uncertain regulatory standards by BASEL committee, and usage of technology. While focus on customer-centric models and leveraging new technologies to create user experiences will drive growth, pursuing them without aligning business strategies with risk management capabilities will increase strategic risks.
- 2. Reduce risk management costs: The global economic slowdown and low interest rates have restricted revenue opportunities for banks. At the same time, regulators predicting upcoming risk events are increasing regulatory requirements, thereby increasing costs. To remain profitable, banks will consolidate their processes by identifying overlapping and redundant processes across business units. They will employ robotic process automation technologies to automate regulatory reporting, KYC documenting, or credit scoring.

- Al Rajhi implemented RPA to mitigate fraud risk related to cards and enhance efficiency.
- Mashreq partnered with a fintech company to drive operational efficiencies across all banking services.
- Malaysia's CIMB Bank realized 90% reduction in turnaround time for nine out of 15 banking processes.
- **3. Strategically manage capital and liquidity:** The last decade since the GFC has seen a significant increase in regulatory requirements for capital and liquidity. Regulatory capital requirements are a binding constraint and need to be effectively managed for institutions to improve their returns on equity. First, banks will need to develop a robust capability to measure capital and liquidity at a business unit level daily. Banks can also consider using external vendors to measure and manage capital adequacy. Next, they will then need to build liquidity measures into their strategic plans and management approaches. Managing capital and liquidity has become important considerations when taking strategic decisions regarding product offerings and managing competition.

Technology is enabling non-bank financial service players to innovate beyond the constraint of existing systems to improve access, offer seamless services, and make it a better experience for its customers. The future of banking is much more than just a profit-making business, it is about letting a larger population use banking services, proactively building customer relationships, and improving the convenience of banking while managing costs and risks efficiently. Future success of banks will primarily be measured by how effectively they have transitioned from being a physical structure with complex processes, high regulatory costs, and unattractive products to the way Fintech are operating now.

#### **CURRENT SCENARIO**

- High costs of banking
- Access restricted to developed societies
- Complex operating models

#### **EMERGING TRENDS**

- Transition to operate like consumer companies with multiple points of access
- Focus on core-operations and outsource everything else
- Consider strategic risks for shielding against the future

#### FUTURE OF NON-BANKING INSTITUTIONS

By definition, a non-bank financial institution (NBFI) does not have a full banking license and cannot accept deposits from the public. However, NBFIs do facilitate alternative financial services, such as investment, micro-loans, insurance, brokerage, and payments. Even though NBFIs provide services that are not necessarily suited to banks, they specialize in sectors and niches where they can serve as strong competitors to traditional banks. According to Oracle's Digital Demand in Retail Banking study of 5,200 consumers from 13 countries, over 40% of respondents think non-banks can better assist them with personal money management and investment needs.<sup>49</sup>

#### **INVESTMENT MANAGEMENT**

The investment management industry is in flux. Pressurized by high cost of large asset management companies, investors are shifting to investing in low-cost funds that mimic the returns generated by benchmark stock indices. This is the age of passive investing. The trend will drive large asset management companies to lower their fees which in turn will result in large-scale consolidation and job cuts. In the next five years or so, as many as one in three asset management companies will disappear to closure and consolidation.<sup>50</sup> To remain competitive and gain higher margins, investment management companies are developing capabilities in emerging technologies, such as AI, and expanding geographically. In the next few years, investment management companies will primarily focus on the following developments:

1. Integration alternative investments: In the future, asset management firms will be using technology to develop solutions that embed alternative investments in portfolios across various client segments. Investment "A third of the asset management industry could disappear over the next five years, as mounting fee pressures and rising costs spur more closures and consolidation." -Martin Flanagan, CEO of Invesco, March 2019

platforms, coupled with investment advice and risk controls, may become important to allow open access to alternative investment instruments.

- 2. Develop new products: Investment managers will develop new products focusing on sustainability, market volatility and developing macrotrends. Some firms are launching Exchange Traded Funds (ETFs) to curb downside market risks in an environment of uncertainty.<sup>51</sup>
- 3. Create operational efficiencies: Reducing profitability of asset management companies has forced companies to take actions such as outsourcing front-office operations and increasing technology expenditures to stay competitive. Operational transformation often also increases the requirement to have strong risk management processes.
- **4. Improve customer experience:** Customer experience is a strategic priority for firms to provide a holistic customer-centric enterprise-wide solution. Investment management companies are investing in marketing campaigns and developing a seamless user interface to attract and retain customers.<sup>52</sup>
- 5. Expand geographically: Investment management firms are considering geographic expansion as an important component of having profitable growth. Asia is one such target for expansion, which is home to the largest

number of millennials (62%) and also the largest group of working population (63%). The estimated opportunity for public funds in China is expected to surpass \$2.6 trillion of assets under management in 2020.<sup>53</sup>

#### ALTERNATIVE LENDING

The presence of technology-based alternative lenders is growing in the lending industry, thereby putting pressure on traditional financial institutions to digitize their own lending options. It is predicted that alternative lending is expected to quadruple from \$30 billion in 2018 to over \$137 billion by 2023. Shadow-banking institutions provide loans to underqualified borrowers with more accurate underwriting processes that result in higher returns on investments for lenders. Alternative lending will continue to gain traction because of the short approval periods, easy accessibility and lower rates. By 2023, loan origination value via alternative lending platforms will approach \$588 billion annually, 41% of global small and medium enterprises (SMEs) financing.54 In the future, alternative lending companies will start using crypto collaterals to tackle the issue of clients defaulting on loans

#### MICROFINANCE

Microlending has grown from a niche service offered in Bangladesh to a significant global source of financing for the poor, mostly in developing countries. Around 200 million people globally receive support from microfinance institutions (MFIs). Most of these institutions are regulated by governments and therefore provide safe places for the poor to save and also offer the required capital for smallscale projects. Technology has had an impact on the MFIs as well. Now out of infancy, the microfinance industry is facing major challenges in adopting new technologies.<sup>55</sup> The way to really address the problem of the rejected people from the financial system is to create a new financial system. Like a Grameen bank. It's a bank for the poor and it doesn't lend money to the rich. The bank for the rich doesn't lend money to the poor. That's a simple division. Two systems."

-Dr. Muhammad Yunus, Nobel Laureate and founder of Grameen Bank, October 2018

While the world is moving towards algorithm-based credit, MFIs swear by their traditional underwriting methodologies, whether they involve group guarantees or individual repayment capacity assessment. These high-touch methods often yield higher repayment rates. The methodology not only predicts the ability of a customer to repay, but also increases motivation to repay, through peer pressure, personal contact and the promise of continued access to credit. MFIs began with credit as a stand-alone product, but increasingly, digital payments are becoming a gateway to credit because of the data these payments produce, and this gives an enormous potential advantage to major payments platforms entering the space of micro-credit, thereby challenging the microfinance institutions.<sup>56</sup>

For MFIs to turn these challenges into opportunities, they will have to undergo digital transformation. Organizations will have to create digital tools for their loan officers, incorporate credit scoring tools into the underwriting process, and switch to digital loan disbursement and repayments. This transformation will require retraining and employment of skilled officers, which need to be discussed more openly in the sector. The microfinance sector will require expertise on analytics and technology to guide the transformation.

#### **CURRENT SCENARIO**

- High cost of investment management
- Rapid growth of alternative lending
- Technology adoption a challenge for microfinance institutions

#### **EMERGING TRENDS**

- Formation of passive funds
- Integration of the asset management industry to lower cost
- Microfinance will partner with fintechs to create credit scoring tools for underwriting and expanding credit at low cost

#### **FUTURE OF SOCIAL FINANCE INSTITUTIONS**

Every economy is influenced by the social construct where it operates through various intangible strings like culture or rituals. That construct is highly shaped by the nature of interaction and ease of interconnection but also through financial means of interaction. Those means help build the social capital of the economic agents that can have a positive or negative effect. One of the most revealing example is the platform based crowd engagement model, whether through knowledge sharing like Wikipedia or crowdfunding platform to channel finance to social causes. Social Finance is thus defined as the financial mean to leverage social capital.

The past decade has been one of evolution for social finance. Several finance institutions have developed techniques and tools to partner with voluntary, public, and social sectors to improve people's lives. Social finance institutions look at where the system is failing, where costs of failure are high and where there is appetite for change. Its focus is to deliver change that improves people's lives. Social enterprises are an increasingly important force supporting and delivering quality public services and social change.

## INVESTMENTS INCLUDING SOCIAL AND ENVIRONMENT CONSIDERATIONS

Contrary to the long-held view that social returns should be funded by philanthropy and financial returns should be funded by mainstream investors, the current thinking is changing, and non-financial goals are as important to investors as financial returns. Investors explicitly target investments that also deliver positive change for society or the environment, mainly through ESG investing, SRI and impact investing. ESG looks at the company's environmental, social and governance practices, alongside more traditional financial measures. Socially responsible investing involves actively adding or removing investments based on specific "The SDGs are a game changer because they have been designed with private investors in mind. Now, individuals can direct their investment dollars to join the movement to harness trillions of dollars in capital toward creating a more sustainable future for us all."

-Jackie VanderBrug, head of Sustainable & Impact Investment Strategy at Bank of America, May 2019

ethical guidelines. Impact investing is meant to maximize the impact on society, with a quantifiable impact and societal reach.

The SDGs have been primarily developed to tap private investors' potential. Achieving the SDGs will require an annual investment of \$5-7 trillion, a target that government funding and traditional development finance alone will not be able to meet. With social investing gaining traction, private investors looking for higher returns may invest in industries and technologies developing new products aligned with the SDGs. In a survey conducted by Bank of America, 88% of respondents said that they would be willing to select investments that align with the SDGs.<sup>57</sup>

According to the Global Sustainable Investment Alliance, ESG investing grew to more than \$30 trillion in 2018. It is expected to reach \$50 trillion over the next two decades.<sup>58</sup> Since 2007, when the first green bonds were issued by the World Bank and the European Investment Bank to help finance climate change solutions, the market has grown to reach a global total of \$521 billion.<sup>59</sup> The market for green bonds is expected to scale up to \$1 trillion in the coming few years.

- According to Giving USA, total estimated charitable contributions in the United States in 2018 were \$427.71 billion.
- Over 2,250 money managers who collectively oversee USD80 trillion in assets have signed on to the United Nations-backed PRI.

France became the first country to require institutional investors to report how they consider environmental factors. Regulators are expected to come up with more such regulations, where they would make it a mandate for investors and financial institutions to integrate sustainability requirements into their investment decisions and businesses through green bond standards.<sup>60</sup>

#### PHILANTHROPY AND DONATIONS

Donor-centric philanthropy has increasingly contributed to the rise in popularity of crowdfunding platforms, which enable donors to have full control over who they support and how they spend their money. A similar sentiment is responsible for the boom of Donor Advised Funds (DAFs), allowing donors to plan their philanthropic actions. Philanthropist's contribution to DAFs grew by 36% to \$37.1 billion from 2013 to 2018.<sup>61</sup>

#### ISLAMIC PHILANTHROPY

The tradition of Zakat and Sadaqat, a form of almsgiving, has enormous potential to revolutionize the welfare of those living in poverty and empower the underprivileged. Zakat and Sadaqat funds encourage the wealthy to invest back in the community to support the needy. Zakat is now a global phenomenon of relevance, and not only in Muslim majority countries. Zakat is based on core Islamic principles and aligns with numerous SDGs, including no poverty (SDG 1), zero hunger (SDG 2), reduced inequalities (SDG 10), among others. Collaborating with Zakat donors and administrators reflects the spirit of partnership for the goals (SDG 17). The United Nations Development Programme has partnered with BAZNAS, the national Zakat collection body in Indonesia, to collect funds and make grants to implement projects.<sup>62</sup> The problem with Zakat funds is mobilizing it for effective use. The future will require Zakat and Sadaqat using digital technologies for better collection and distribution purposes, which will help in increasing the access of such funds and unlocking the true potential of Islamic philanthropy.

Among the other forms of charitable deeds available to Muslims, Waqf is one of the most underused instruments. By Sharia law, Waqf creates and preserves long-term assets that generate income flows or indirectly help the process of production and creation of wealth. There are various challenges facing the development of Waqf properties in terms of management, administration and financing. The limited sources of funds and lack of capital are the major factors preventing Waqf properties from being developed. The role of Waqf properties began to deteriorate to a point where they are at a state of idleness, neglect and unproductiveness.

Several Islamic countries are willing to invest and revive Waqf properties to realize the full potential of the investments.<sup>63</sup> The launch of cash Waqf and Waqf shares is seen as the perfect sustainable financing instrument offered by Islam to sustain public spending by the people and the community.<sup>64</sup> Considering the potential and flexibility that comes with cash Waqf, governments and businesses should take a central role in providing a level playing field to develop cash Waqf. Issues about mismanagement of funds, liquidity, and transparency will be solved using Blockchain solutions for raising funds and administration purposes. This is the way forward for administrators and Islamic finance scholars to restore the functionality of a Waqf fund. Blockchain would help in terms of efficiency, transparency, immutability, and security. Finterra, a Blockchain-based social finance institution, has developed an interface for Waqf, integrating contributions, financing, and investments. The tokens can be used to crowdfund the development of the asset. Usage of Blockchain would help in creating project proposals to develop and restore the properties, which will be the cornerstone of Waqf development in the future.

#### **CURRENT SCENARIO**

- Investors are realizing the importance of social investments
- Challenges with mobility and liquidity of Zakat funds
- Launch of cash waqf and waqf shares to mobilize donations

#### **EMERGING TRENDS**

- Investments aligned with the SDGs will attract private investors because of high returns
- Adoption of technologies to improve collection and disbursement of funds
- Setting up a Blockchain based system to promote the efficiency waqf funds

#### FUTURE OF FINANCE PLATFORMS

Following the financial crisis, traditional bank loan approval rates remained low, especially for smaller loans. Banks were looking to grant larger, more profitable business loans and typically had increased scrutiny in approving loans less than \$250,000. The capital raising climate was not suitable for SMEs which often needed money to fund their working capital needs. According to data reported by SME Finance Forum, in 2018 there was funding gap of \$5 trillion between the financing needs of SMBs and the institution-based financing available to them. This environment resulted in the rise of alternative funding companies and online lenders, who filled the gap created by traditional lending institutions.

#### **CROWDFUNDING PLATFORMS**

Crowdfunding has gained purchase in several developed economies including Australia, the UK, the Netherlands, Italy, and the US and is now attracting considerable interest from developing countries. According to the World Bank, crowdfunding has emerged as a multibillion dollar global industry. The global crowdfunding market was valued at \$13.93 billion in 2019 and is expected to reach \$39.79 billion in 2026.<sup>65</sup> China is the largest region of crowdfunding in the world as it made up about 37% of the global market in 2018, while Europe and the US were about 18% and 33%, respectively. Crowdfunding platforms are available to raise capital in the form of debt and equity and are primarily used by SMEs for growth capital. <sup>66</sup>

In the coming years, with a positive approach towards crowdfunding, the closed and private nature of investing in small businesses and start-ups might change rapidly. With the rate of growth of crowdfunding and its emergence in developing and developed countries, this phenomenon can become a tool in most countries' innovation ecosystems in terms of investing. Governments and policy experts worldwide are considering the possible impact of crowdfunding and trying to develop new regulations, empower new technologies, and equip entrepreneurs with sufficient information to decide if crowdfunding is viable funding or investment vehicle for these enterprises.

#### **CROWDFUNDING FOR SOCIAL CAUSES**

With 70% of funds raised going to use cases for public good, one of the most important aspects of crowdfunding is that it helps with investments in cross-cutting services. Conscious crowdfunding is shifting the way philanthropic work gets done. Large corporations including Apple and P&G are collaborating with the public using crowdfunding platforms and sometimes acts as an incubator for social entrepreneurship.

#### EQUITY CROWDFUNDING

The ecosystem of crowdfunding is shifting from a donation-based model to a viable business strategy. In 2016, the Securities and Exchange Commission legalized equity crowdfunding, thereby allowing platforms to register with the Financial Industry Regulatory Authority as funding portals that offer equity opportunities for small-scale investors. Equity crowdfunding is expected to grow at a rapid rate of 32.5% during the period 2018-23.<sup>67</sup> Start-up investment experts believe that this development in crowdfunding has the potential to become the future of start-up investing.

#### **CURRENT SCENARIO**

 Lack of trust in crowdfunding platforms

#### **EMERGING TRENDS**

- Crowdfunding will be used to fund housing and infrastructure
- Crowdfunding projects will use Initial Coin Offerings to raise funds

#### PEER-TO-PEER LENDING

Strict scrutiny and unattractiveness of bank loans are also driving the growth of Peer-to-Peer lending (P2P lending). The growth of the P2P lending market is driven by SMEs' credit requirement, coupled with increased awareness among the public regarding the lower rates of interests and greater transparency offered by lending platforms compared to financial institutions. The market is expected to grow at an annual rate of 5.6% during 2019-25 to reach \$370 billion in 2025.<sup>68</sup> Among the applications of P2P lending, funding real estate transactions is expected to grow at a rapid rate of 14.7% during the same period. Real estate projects often require large amounts of investment which makes it difficult for developers to acquire loans from financial institutions, thereby driving developers to opt for P2P lending platforms.

The future of both crowdfunding and P2P lending platforms is the use of Blockchain mechanisms that will make the platforms transparent and reliable for both lenders and borrowers. Security Token Offerings will emerge as the way for crowdfunding and P2P lending since they offer investors governance and protection. In addition, stricter credit policies implemented by traditional banks and financial institutions are expected to drive such platforms' market growth among SMEs.

#### **CURRENT SCENARIO**

- Low access to credit for small business owners
- Longer time and inefficient process for approval of capital

#### **EMERGING TRENDS**

- · Legalize equity crowdfunding
- Security token offerings will make the platforms transparent for both lenders and borrowers

Starting a small business through microfinancing

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Empowering a local young lady to starting her own sewing shop for traditional dresses in Nigeria.

### **1.3** GLOBAL TRENDS AND THEIR IMPACT ON THE FINANCE INDUSTRY Future of financial instruments

#### **EQUITY FINANCING**

#### **DECLINING IPO ACTIVITY**

While there has been a growth in the markets, IPO activity has slowed down. Fewer companies are listing shares on public stock markets. In 2019, 845 companies globally went public, down 25% as compared to the previous year. Europe had the largest decline in IPOs as 40% fewer company listings, and the US down by 23%.69 Among top factors that sometimes make going public unattractive are the increased regulatory burden and listing requirements, high cost of listing, high levels of volatility and tougher corporate governance standards. While the fear of red tape and its associated costs are important factors, cheap capital from private markets is also a driving force behind the decline in attractiveness of IPOs. Despite all this, IPOs are the most natural way for successful companies to raise capital. 2020 has seen a flurry of IPO activity in the tech sector.<sup>70,71</sup> Going forward, there are efforts to change the regulations around direct listing to allow companies to raise new capital by selling shares on their own behalf. The new regulation is aimed at lowering the cost of an IPO and will ultimately encourage more companies to go public.72

#### **CURRENT SCENARIO**

- High cost of listing and corporate governance making IPO market unattractive
- Growth in private capital

#### **EMERGING TRENDS**

 Bring in regulations for direct listing procedures

#### **FIXED INCOME INSTRUMENTS**

Fixed-income markets have undergone significant structural changes since the 2008 financial crisis. These seismic shifts are forcing investors to adapt to a new market paradigm that will challenge how they trade fixed income and what types of products they use to build bond portfolios and manage risk. New trends in the fixed-income space will affect three main aspects:.

#### 1. Changes in market structure

The typical investment process in the fixed-income market from idea generation to trade execution is still very inefficient. Changes in market structure are therefore needed to make bond markets more modern and networked. Until today, a vast majority of trading still takes place over the phone, and the settlement process often still takes days. However, the traditional principal-based fixed-income market is now transforming towards a hybrid principal/agency market. Digital technologies, including process automation, advanced analytics, Blockchain and smart contracts will in the future improve information flow and allow the automation of deal processing. With the right regulatory environment and transparency, these technologies could also help regulators improve secondary market trading, decreasing transaction costs over time.

#### 2. Robust liquidity model

Liquidity for fixed-income markets also needs to be reexamined. Traditional bond dealers have been forced to fundamentally rethink their business models about how to best access liquidity across products and asset classes, using a broader, more robust suite of liquidity measures and exposure vehicles. In the future, liquidity and regulatory environments will be interconnected. Depending on the evolution of the political landscape over time, regulatory burdens may still exist, but the overall trends towards enhancing product standardization and transparency are likely to continue. In aggregate, liquidity should stabilize for individual cash bonds. Rulesbased instruments with reference market benchmarks (i.e. derivatives and ETFs) will see the largest gains in trading volume once investors discover the liquidity and diversification benefits they can offer.

#### 3. Index-based products

Index-based products will become central to any portfolio construction and risk management. Today, the changing market structure means that building fixedincome portfolios solely with individual securities can be increasingly costly and less efficient. The demand for transparent, standardized, and bundled fixed-income products have shown growth among index-based products. This has led to index/basket exposure vehicles increasing how investors construct fixed-income portfolios. In the future, the offering of index-based vehicles in fixed income will likely be much more refined and granular, moving from broad indices into constituent sub-indices. This will allow investors to access fixed-income exposures that are highly targeted by sector, industry, size, and quality.

#### SUKUK

With the rapidly expanding asset classes, a growing number of fixed-income investors are moving towards thematic bonds, green bonds, transition bonds and Sukuk, or Sharia-compliant bonds. With about 24% annual growth over the past 15 years, the Sukuk space has been expanding much faster than the wider Islamic finance market itself. Even if the projections are done on a lower rate of growth at roughly 15% per year, the global Sukuk space will likely be \$2.7 trillion by 2030. Sukuk securities are especially attractive to investors who wish to diversify their investment portfolios seeking exposure in a different asset class, to achieve portfolio diversification. In Sukuk, fixed-income profit is paid to investors at predefined regular intervals, ensuring investors enjoy a steady cash flow. Meanwhile, countries like Nigeria, Pakistan, Hong Kong, Turkey and Indonesia are fast becoming significant Sukuk issuers, highlighting the popularity of the asset class, with increasing diversification of portfolio risks.<sup>73</sup> Investors will eventually allocate ever-larger sums of capital to green Sukuk. Still in its early stages, regulations are not yet in place for the commitments required by companies to be eligible for green and transition bonds.

The future of fixed-income markets will see these four trends gaining pace including increasing transparency, adoption of standardized instruments and trading, modern vehicles (e.g. rules-based derivatives, green bonds, and ETFs that reference market benchmarks), and modernization of trading by adopting the technologies. As a result, a more complex approach and more robust set of tools will be necessary to address the bond market's longstanding challenges.<sup>74,75,76</sup>

#### **CURRENT SCENARIO**

- · Inefficient trade execution and liquidity
- Sukuk attracting institutional and noninstitutional investors from Muslim and non-Muslim communities

#### **EMERGING TRENDS**

- Process automation will improve information flow
- Regulations around mandating green bonds and sukuk

#### **REAL-ESTATE FINANCING**

Real estate is rapidly growing as a favorable asset class, primarily due to the factors of stability, ongoing passive income and asset value appreciation. In recent years, investors have been withdrawing from hedge funds and public markets to real estate.<sup>77</sup> Despite uncertainty surrounding a potential market correction, private real estate fundraising grew significantly in the past 10 years. Globally, private funding grew at a compound annual growth rate (CAGR) of 10%, from \$58 billion in 2010 to \$124 billion in 2018.<sup>78</sup> Investors favor private real estate investments over public investments because they do not include the constraints of public transparency and disclosure. Private investments require fewer levels of approval or bureaucratic process and therefore make deals faster for investors.

In the future, the real estate industry will be at the center of rapid economic and social change, which is transforming the investment scenario. Real estate constitutes over 50% of the world's assets. Housing is a vital human need and the commercial property sector delivers and manages the infrastructure needed for entrepreneurship to flourish. The evolution of technology and its impact on money-based transactions will have a similar impact on how real estate transactions happen. One of the biggest transaction changes in the real estate industry has been the migration to the digital transaction process, with digital forms and signatures making transactions faster. Financial institutions started competing for their business with the introduction of online lending and brokerage options. The adoption of data analytics and identity verification process in mortgage lending could improve decision making on loan approvals, leading to fewer late payments and foreclosure, and could expedite closures on loans.

#### **CLOSED-END FUNDS**

While many investors are looking at their own deal origination and development, growth of closed-end funds are expected to increase because of foreign investments, especially China. North America has been the dominant market contributing to more than 60% of the funds and capital raised in the world. In the emerging markets, growing population, migration to cities, and an increasing middle class are the primary reasons of a growing real estate market.<sup>79</sup>

#### SHARED REAL ESTATE

With Big Data analytics incorporated into the approval process, the future could accommodate sharing economy based real estate purchases, wherein multiple people can pool together for buying a property. The UK government has allowed homebuyers to buy a share of their home and pay rent for the remaining part and later on buy bigger shares. Implementing similar regulations in developing and less-developed countries will help develop the housing sector, which will indirectly boost the economy. Companies such as 'Share a Mortgage' offer homebuyers ways to join the real estate market by allowing people to share the cost of a mortgage with trustworthy like-minded individuals. Further companies are developing business models to transition real estate from an illiquid asset to a liquid one. Companies such as Marketplace Homes are based on reducing the inconvenience and costs related to selling a home to purchase a new-construction home. In addition to residential properties, there is also an increase in shared commercial real estate. Companies that own or lease blocks of office space divide them into smaller units they can lease or sub-lease to start-ups and independent contractors. Companies are attracted to shared spaces

because of cost efficiencies of sharing certain expenses. Even large companies sometimes favor shared spaces to reduce the costs of lengthy long-term leases.

#### **TOKENIZED REAL ESTATE PURCHASES**

With technology advancements and the development of Blockchain technologies disrupting the financial services sector, it has also influenced real estate investments.<sup>80</sup> Previously, transacting value assets such as real estate exclusively through digital channels has never been the norm. Blockchain has however, opened up ways for highticket digital payments. In the future, the introduction of smart contracts will allow tangible assets like real estate to be tokenized and traded like cryptocurrencies. Commercial enterprises and real estate professionals are expected to recognize Blockchain technology's transformative impact on optimizing retail and commercial property sales, streamline payments, and increasing access to real estate funds and investment opportunities.

Blockchain smart contracts have a prominent role to play in the future of real estate financing. Real asset tokens can be programmed with any logic the issuer wants, including a logic ensuring that distributions and transfers are compliant to meet specific rules. Tokenization reduces the cost and increases the speed of creating, issuing, and exchanging assets. This, in turn, increases access to investors, improves transparency, and has the potential to improve liquidity and distribute risk.

#### **CURRENT SCENARIO**

- Unaffordability of purchasing real estate
- · Low liquidity of investments

#### **EMERGING SOLUTIONS**

- Regulations around shared residential real estate
- Tokenized real estate transactions to improve liquidity

#### INFRASTRUCTURE FINANCING

One of the most pressing global issues is the shortage of infrastructure. Urbanization and migration to cities are driving demand for infrastructure. Global infrastructure is a significant economic multiplier, providing long-term returns after the initial project is completed. Among top priorities of global development leaders is to catalyze more significant private investments in global infrastructure. According to Global Infrastructure Hub, it is expected that the world will be facing a \$15 trillion gap between projected investment and the amount needed to provide adequate global infrastructure by 2040.<sup>81</sup> Since there are great and increasing needs for government funding in healthcare, education and the public pension, it is all the more important for private investors to step in and bridge the financing gap facing infrastructure development.

#### CHALLENGES WITH INFRASTRUCTURE INVESTMENT

The challenge currently in attracting private investors to finance infrastructure projects is that governments have often been unable to create investment-ready project pipelines, thereby leaving investors unsure of how, where, and when to invest. In addition, infrastructure is one of those industries with a low degree of digital transformation. Even modern infrastructure assets are currently designed, built, operated, and managed the same way as they were in the past. Globally, infrastructure development is at a critical juncture, particularly with issues like strained government budgets, and external threats caused by climate change and political instability.

#### **PRIVATE INVESTMENTS**

Developing urban infrastructure projects will require innovative approaches and collaboration across the public and private sectors. Delivery models such as designbuild and public-private partnerships (PPPs) will promote sustainable development by including key project members in multiple phases of a project life cycle. PPPs play a critical role in meeting the need for investment in infrastructure. However, they often fail due to political opposition, lack of transparency, and public resilience to private control. In addition, PPPs were typically limited to institutional investors, creating limited markets for capital and reducing infrastructure investment's economic impact to the local community. With the onset of crowdfunding to source money for a project, PPPs can create special purpose vehicles to raise equity from local individual investors, which helps in increased public and political support, increased transparency, and promotion of locally serving projects.

#### SHARIA COMPLIANT INFRASTRUCTURE

OIC countries lag behind when it comes to roads, rail, electricity, and overall global infrastructure competitiveness, with a lack of financing as one of the main reasons. Though Islamic finance has grown in terms of assets, it has contributed relatively less to the infrastructure sector. A primary prohibitor is the complication of the legal structure, which differs by countries and jurisdictions. Transferring ownership of an asset requires volumes of documentation and can have legal and tax implications if there are no Islamic finance regulations on transfer of ownership in the country. Political will, clear policy from governments, and support from regulators to actively fill the gaps in regulations related to ownership transfer will help promote infrastructure PPPs within Islamic finance.

Blockchain-based models will enable new financing sources and mobilize environmental-related pledges by establishing new financing platforms. Blockchain systems can increase the awareness and access to transactionenabling infrastructure. Decentralized financing institutions could enable investors to invest directly in sustainable infrastructure, thereby transforming illiquid assets into tradeable digital assets. A Blockchain-based infrastructure contract management system can help in verifying and tracking the validity of infrastructure contracts. The contract management system can work in tandem with IT systems to review the validity and conditions at any given time, leading to more streamlined and transparent processes.

The future of efficient infrastructure financing can be achieved by developing the regulatory and operational environment at two levels – first, seek partnership from private institutions, and individual investors using crowdfunding platforms; second, develop IT systems supporting decentralized contract management systems based on Blockchain to improve transparency and seamless investments.

#### **CURRENT SCENARIO**

- Inability to create investment ready project pipelines
- Challenges with corruption and lack of transparency

#### **EMERGING SOLUTIONS**

- PPPs can create special purpose vehicles to raise funds from individual investors
- Application of Blockchain based models can improve transparency and efficiency of projects

#### **RISK MANAGEMENT PRODUCTS**

The complexities of businesses are one of the major contributors to higher risk exposure of organizations. Organizations are redefining their risk management approaches to keep pace with the change in business environment and adapt to surrounding complexities to maintain relevance and demonstrate value. Organizations have started using risk management tools not only to remain compliant but also as a driver of value and to ensure survival in a competitive business environment.

#### **TECHNOLOGY IN RISK MANAGEMENT**

In the context of risk management, technology has dual emerging considerations. One, in which technology plays a role in transforming firms to move from compliance to performance and adopt more effective risk management practices. The other consideration for risk managers is to look at the rapidly changing technology landscape as source of significant risk. Proactively managing risk have led to increased role of the treasury in business organizations. Treasurers are changing their focus from just dealing with liquidity issues to becoming more strategic for the organization.

#### **CURRENT SCENARIO**

· Increasing total cost of risk for businesses

#### **EMERGING SOLUTIONS**

- Focus on strategic risks rather than just considering liquidity risk
- Regulators to check the growth of hedge funds and develop regulations to protect investor interests

#### INSURANCE

Like other financial services, the insurance industry is at the edge of facing several changes – technology disruptions are not the most important one. Increasing competition, changing customer expectations, and transformation towards a service-driven business model are among the major challenges faced by insurance companies.

#### TREND TOWARDS NON-INSURANCE PRODUCTS

Insurance companies believe that 62% of consumers consider the non-insurance products when choosing an insurer and more than 50% believe that rapidly changing customer needs and expectations will be the main challenge in the future. The emergence of pay-per-mile car insurance models, rise of Robo-advisers, development of Blockchainenabled smart contracts and newer products such as cyberinsurance are indications of changes across the value chain. Insurance is shifting from offering a product to protect against losses to having a proactive focus and offering preventive services. Companies have started offering products such as roadside assistance to cyber education. Insurers have become tech-enabled with the development of IoT devices and sensors to keep customers aware about the potential of future losses.

Insurers will be investing in several technologies including cloud, IoT, and advanced data analytics. To integrate these technologies, insurers will need to take a comprehensive approach by bringing the whole organization on board and create a platform-based model that can offer customers a range of products and include own label and those from other providers.

#### TAKAFUL AND MICRO-TAKAFUL

In Islamic countries, where penetration of conventional insurance is low, Takaful is seen as a key to increasing insurance awareness. However, the takaful market is fragmented with capital overtly exposed to inadequacies of pricing and reserving, which has resulted in weaker structures. Indonesia, and Pakistan are developing the takaful market through the windows of established private players rather than through independent and new companies. Though takaful is making its strides, a lot needs to be done to develop micro-takaful, which helps in serving society to be financially independent. Micro-Takaful encourages financial institutions to finance the poor and thus contribute to the reduction of poverty. Micro-Takaful is expected to experience exponential growth in the coming years in most of the Islamic and Arab countries, at rates ranging between 20-25%, especially with a fertile environment for the growth of the sector which is characterized by abundant population.

In the increasingly competitive world, where technology and globalization are playing a major role in creating complex risk structures, Takaful will have to be integrated with other financial instruments offered under Islamic finance and address the capacity challenges of low income and marginalized segments of the population to purchase appropriate takaful services.

#### **CURRENT SCENARIO**

- Transformation towards a servicedriven business model
- Low penetration level for Takaful

#### **EMERGING SOLUTIONS**

- Focus on integrating predictive technologies and offering noninsurance products
- Develop regulations to support the expansion of takaful

Pakistani ladies sewing a quilt blanket

Microfinance and crowdfunding provide work opportunities and support for less privileged individuals.

# FINANCE NDUS R WENDW?

# THE FINANCE INDUSTRY IS AT A HISTORIC CROSSROAD

64

68

74

### THE FINANCE INDUSTRY NEEDS TO CHANGE ITS COURSE

| The Need for a New Compass        | 68<br>71<br>72 |
|-----------------------------------|----------------|
| The Need for Revised Institutions |                |
| The Need for a New Growth Model   |                |

# HOW READY ARE ISDB COUNTRIES FOR THE FUTURE?

| Countries with Higher Readiness for the Future  | 76       |
|---|----------|
| Countries with Moderate Readiness for the Future<br>Countries with Low Readiness for the Future | 79<br>82 |

# **2.1** THE FINANCE INDUSTRY IS AT A HISTORIC CROSSROAD

he materialization of the futuristic trends described in the first part of the report depends on the actions taken now to address the major challenges facing the Finance industry in the present. In this part of the report we present a quick overview of the fundamental challenges facing the development of a sustainable financial sector.

There is growing evidence that world economic systems

and norms will soon face their day of reckoning. Human development has been remarkable in the last few hundred years, and the technological and societal transformations that have brought this development have generally improved welfare for billions. However, it is now evident that the old economic model has significant flaws and as of now, business as usual is simply not an option.



#### Figure 21: Mind the gap: the financial system's shortcoming in fulfilling the desired objectives

The economic and technological development came at a terrible cost to the environment. We are now staring at a climate and environmental catastrophe. Life for billions of people is or will be precarious on account of increasingly frequent extreme weather events. In addition, within and between countries income and wealth inequality between the haves and have-nots is growing at a scary pace. In many countries, increasingly economic growth is happening without the decent jobs this growth is meant to bring, while the fruit of this apparent economic prosperity only accrues to a select few. In many countries, the cherished middle class has all but withered leaving many communities whose lives and livelihoods were centered around decent and secure work, facing increasing uncertainty and poverty. Communities in developed and developing countries alike are facing the same uncertainties, risks to their livelihood, precarity and environmental degradation.

The purpose of any economic system is to maximize the social welfare as the social utility function of all economic agents. The objective of an effective economic system is to enable societies to reach a better standard of living. Thus defined, economic performance and prosperity will be understood in the broadest possible sense. The objectives that coincide with the Islamic Sharia principles are to provide decent and prosperous lives to all humans and ensure that everyone has a minimum welfare level, thereby securing all human basic needs.

A well-functioning economy should provide the following:

- a. Prosperity and economic growth: Prosperity should be understood in its broadest sense and needs to be inclusive with its dividend accruing to all. Growth also needs to be sustainable, socially and environmentally.
- b. Stability: The role of an economic system is to foster stable economies. Successful economies should reduce uncertainty and allow everyone to enjoy some security. Financial crisis and extreme business cycles that are the hallmark of today's world, cause much angst and dread among households that are reminded that their homes or work are one missed debt repayment away from being lost.
- Fairness: Intra (equality) and Inter (sustainability) C. generational fairness. The final criterion for a successful economy is one that does not lead to extreme concentration of wealth in the hand of an oligarchy or to extreme income inequality between corporate CEOs and workers, one which favors predation and rent extraction at the expense of production and often, economic policy options are stated as a choice between efficiency and equality. However, this precept does not stand up to scrutiny. There is growing evidence that inequality is in fact detrimental to growth from academic research and research output from the IMF and the OECD. Economic choices, efficiency and equality are cast along a framework of different philosophical approaches to welfare and social justice, leading to different

definitions of a social utility function and different economic policy/system objectives.

The role of government and markets is paramount in developing a successful economic system. The policy actions of a government take place in the monetary, fiscal and institutional (statutory, legal and regulatory) spheres. The objective for a government in using these levers is to optimize economic performance by addressing market failures and externalities, providing public goods, providing certainty and protection through laws and regulations and redistributing income to achieve more equitable outcomes. Markets make sure efficient allocation of resources is achieved, albeit under very strong and restrictive conditions. Where markets fail, governments have to step in to improve undesirable outcomes. The scope of government interventions has increasingly been shaped by more global concerns such as the coordination needed to tackle climate change, regulating global financial markets, tackling international tax avoidance, evasion and illicit flows. More broadly the provision of international public goods are all issues that have come to the fore amidst recent developments.

There is growing body of empirical evidence that the choice between efficiency and equality is a specious one. The two are in fact complementary. Governments can target a more egalitarian income and wealth distribution through myriad policy interventions, without so much affecting the prosperity of the economy. The betterment of society can only be achieved as collectively members of a society can enjoy basic rights (living wages, affordable housing, clean environment and so on). These are not in stark contrast to economic growth and efficiency. The alternative to this is anemic aggregate demand, polarization and endemic

environmental, social and political upheavals. There is a window of opportunity with new technologies to set on a path of fairer and cleaner economic growth. These are large sunk costs and irreversibility to the choices we make now, therefore we collectively can use today's trends and challenges to commit ourselves and lock ourselves on better, greener and fairer path.

The objectives listed above have increasingly become mainstream and agreed upon, finding their way into the global policy agenda (SDGs, COP22). However, global efforts for coordination have been happening since the second world war with the development of the Bretton Woods system. Multilateralism has been generally a force for good in fostering a coherent framework. However, the brand of market fundamentalism and liberalism that first took hold in the Anglo-Saxon world since the 1980s seems to increasingly have an impact on the rest of the world. Taking stock of the last 60-70 years, it is fair to say not all the objectives of a successful economic system have been attained. Financial systems that are supposed to be a tool of delivering desirable economic outcomes seem to be solely focused on economic growth without so much having an impact on other outcomes. Stability (increasingly devastating financial crisis) and Fairness (inequality at all times high) have been systematically decreasing in the last 40 years.

These universal objectives are enshrined in Maqasid Sharia that are the guiding principles of Islamic Finance. The various definitions and classifications of Maqasid Sharia converge towards benefiting the individual in a sheltered society with the highest levels of welfare.<sup>82</sup> The Islamic financial industry emerged as an alternative to the conventional financial system. However, Islamic Finance has somehow failed to position itself as a fundamentally ethical alternative. Where Islamic Finance has come short is how it can use its high moral ground to offer solutions to the ills of modern economic architecture at scale. In this regard the proposal contained in these pages seeks to present an alternative economic and financial landscape that can be achieved through gradually applying the ethical standard of Islamic Sharia. The changes will span short- and medium-term policy and instructional reforms culminating in stronger, more prosperous and fairer economies in the long run.

The coronavirus pandemic has dramatically damaged the economy Some financial measures could help overcome the negative impact

# WELCOME WE' RE OPEN

### **2.2 THE FINANCE INDUSTRY NEEDS TO CHANGE ITS COURSE** The need for a new compass

• he objectives of an optimal economic system have not been attained and in many aspects have been reverted especially after the financial crisis. One reason for such failure is the misalignment of economic agents' incentives with the overall economic objectives. The current situation is, in turns, the result of policies and institutions that do not give rise to such alignment. For instance, at the level of government, the prominence of output growth as measured by real GDP growth in setting different government policies, has led to adverse outcomes regarding the nature of this growth. By defining dollar amount output as the sole metric by which economic performance is measured (at the aggregate, corporate, business, even household and individual level), the objective functions, be they utility or profit functions, prioritize output above everything else.

This approach to economic management eschews many of the important issues relating to income and wealth distribution, the number and quality of jobs created, welfare and living standards, the environmental and natural resources costs of production. There are of course numerous attempts to introduce these complexities into economic policy and planning, but this is not happening at a fundamental level. These considerations should permeate all levels of the economy, while societal norms have to adapt.<sup>83</sup>

The current financial system has given rise to adverse incentives. There is plenty of evidence showing that finance has become too extractive. Agents operating in the financial industry do not have incentives that are aligned with the rest of the economy. Rent-seeking behavior and lax professional standards have given rise to excessive risk-taking, asset price bubbles and ultimately to an unwieldy financial system that is too complex and not fit for purpose.<sup>84</sup>

#### Figure 22: Looking at the wrong place: the GDP-centric measure of progress



In their report, the commission on the measurement of economic performance and social progress<sup>85</sup> has put the arguments why current measures of economic performance, solely based on GDP, are not adequate. It states that "...GDP is an inadequate metric to gauge the well-being over time particularly in its economic, environmental and social dimensions, some aspects of which are often referred to as sustainability".

The report stressed on the importance of statistical indicators for designing and assessing policies aiming

at advancing the progress of societies, as well as for assessing and influencing the functioning of economic markets. Policies have historically been mis-informed about the right levers to deliver their objectives and therefore cannot create the desired incentives for economic agents. One aspect of such misinformation is the focus on GDP as the international measure of economic welfare.

One recommendation in the report is to advocate a shift from measuring economic production to measuring people's well-being, which should be put in a context of sustainability. Now, GDP, especially when it is expressed per capita does not necessarily correspond with individual experiences. When there are large changes in income distribution, for example, per capita GDP will not paint a true picture of the experience of most people.

There are activities that contribute positively to the GDP figure but which, overall are not welfare improving. These are the so-called defensive expenditures. Another weakness is the failure to account for all externalities and thus the true cost in terms of natural capital depletion involved in producing goods and services. The GDP figure does not account for resource depletion and environmental degradation. In addition to these, GDP-based measures of economic performance are not broad enough as they miss out on national wealth, many non-market activities, and seldom adjust for the quality of goods and services. Finally, other recommendations included in the report are to consider income and consumption jointly with wealth; to give more prominence to the distribution of income, consumption and wealth; and to have a stronger focus on the environmental damage caused by economic activities.



#### Figure 23: GDP and social progress 2011-2020

While GDP made gains, social progress has been stagnating over the last decade.

Source: IMF, Social Progress Index. IsDB Calculation.
#### Box 2: GDP as a bad measure of economic welfare

Examples of wrong metrics in defining policy intervention are many and diverse. In the run up to the Global Financial Crisis, policy makers were debating whether the inclusion of macro-prudential variables in setting the Fed policy rate was desirable. The then chairman of the Fed touted the doctrine that a central bank ought not to consider asset prices in setting its policy rate, a doctrine which in hindsight turned out to be extremely costly. Another policy domain where the blind use of GDP can have adverse effects is the structural adjustment programs championed by the IMF during the Washington Consensus era. Countries experiencing financial crisis were set target deficits and debt levels that are ratios of GDP. It is not at all hard to imagine the sort of policies that these countries would resort to to achieve these targets. Often these countries would slash public expenditure, hurting basic services, while at the same time, in the hope to attract international capital, would reduce the regulatory burden for some companies to invest in the resource extraction sectors.

Preoccupied with making the economy more competitive, countries would be pressurized to reduce environmental and labor market safeguards, thereby creating a toxic mix of reducing environmental and social standards, while at the same time ensuring lower provision of critical public services. Indeed, in the short term these programs would often lead to improved ratios (fiscal and trade deficits, debt to GDP ratio and reserve ratio to cite few). But amidst the misery these policies inflict, it is not too long before these countries start experiencing new woes.

### **2.2 THE FINANCE INDUSTRY NEEDS TO CHANGE ITS COURSE** The need for revised institutions

#### Figure 24: Rub-Goldberg machine: unchecked profit maximization and suboptimal institutions



The financial and monetary systems are the product of thousands of years of evolution, piecemeal adjustments and innovation. There is a view that such process is akin to the evolutionary processes of trial and error and gradual improvement. However, this view is challenged by two facts. First, the current financialization of the economy is still nascent when taken from historical perspective, and it is debatable whether the benefits it generates outweigh the social and environmental costs. In that respect it could be seen that the current version of the financial system is eventually due to self-correct away from the present suboptimal design.

Second, it is widely accepted that markets are not efficient and hence they will not necessarily converge intrinsically to an optimal design, even when taken from the narrow view of financial returns. But more importantly, the feedback loop through policy adjustment does not seem to be efficient either. Asymmetry of access to policy makers between the ones benefiting from the current design and everybody else could be one reason for slow and partial policy reforms. Such mechanisms persisting in suboptimal institutions is widely recognized. Acemoglu and Robinson<sup>86,87</sup> show the causal link between underdevelopment and institutions established hundreds of years ago, and the persistence of such suboptimal institutions.

The financial system has undeniably built layers of complexity over centuries of evolution. Repeated financial crises, as evidence, show that the machinery is so complex that it cannot be totally explained let alone predicted by any advanced model. Taken in the context of inelastic institutional design, the crises are the result of the asymmetry of information and skills disconnect between finance and regulators compounded with a skewed incentives' structure that favors, rationally, excessive risktaking, front loading of cash flows and backloading of risks.

## **2.2 THE FINANCE INDUSTRY NEEDS TO CHANGE ITS COURSE** The need for a new growth model

#### Figure 25: Debt based growth model and fragile financial systems



Source: IsDB

nstability and crises are endemic to financial markets. Rapid credit creation and expansion during times of strong economic growth are the results of lax credit standards, which leads to a deterioration in the quality of credit. Credit so created, finds its way in an economy through financing the purchase of assets (real estate, bonds and stocks) which themselves are used as collaterals. This further distorts asset prices upwards, resulting in these collaterals increasing in value and against which agents can borrow even more.

Lax regulatory backdrop and financial engineering that seems to always be ahead of regulations exacerbate the cycle. Financial crises may show some differences but whether it is call-money financing speculative activities in the stock market or subprime mortgages securitized through opaque Collateralized Debt Obligations, the technology leading to rapid credit expansion and asset price bubbles is seldom well understood before the onset of crisis. Furthermore, these crises which are caused by a small number of systematically important financial institutions, impose their most severe burden on the rest of the economy. Ultimately the collapse of credit and onset of banking failure increase the risk of debt deflation and depression and lead to austerity, unemployment, defaults, and forfeitures.

The resulting economic crises reduce current output and worsen income and wealth inequality. Although they may avert an economic depression, the type of policy responses that result from a financial crisis do not help address economic inequality. In fact, these policies make matters worse. There is growing evidence that QE has not created the sort of credit to businesses and industry that would have resulted in a robust economic recovery. Instead it supported capital markets, pushing asset prices higher, worsening wealth inequality in the process. At the best of time, monetary tightening has been found to increase inequality. By aggressively fighting inflation, for example, wages are kept suppressed, while the effects of an increase in the interest rate are not uniformly felt throughout the economy with low-paid workers and sectors being more affected.

Fiscal policy is also at fault here. Political will is always there to support the too-big-to-fail institutions under the somehow abused pretext of systemic collapse. These bailouts not only stock up more trouble ahead since they distort the incentives of loosely regulated financial institutions but also augur a long period of austerity, low government expenditure and environmental deregulation. After the GFC, many countries embarked on austerity measures to reduce the large debts accumulated due to the bailout programs. These same governments found it easier to reduce budgets that have positive impacts on reducing inequality and improving the environment. In addition to this, these types of policy response encourage financial institutions to remain systematically important thereby guaranteeing their survival in the next crisis.

Financialization and the increasing share of finance in the economy have also led to an increasing amount

of rent being siphoned away from productive sectors. Increasing the leverage of economies, shareholder value supremacy, executive pay structures and asset price bubbles are responsible for the financial and business planning short-termism culture in most corporations. The rent-seeking behavior of unfettered financial systems, leading to an increasing, disproportionate share of profits accruing to the financial industry in the form of rents is the quintessential outcome Islamic Usury laws are meant to prevent. When finance is so extractive, the result is lower wages, more inequality, weaker aggregate demand, and low economic growth.



he financial system of the world is deeply intertwined with disruptive trends. Considering the level of penetration of financial systems in OIC countries, it is imperative first to address the structural challenges in the system to capitalize on future growth. The future of finance in IsDB member countries should therefore be a function of several factors including governance, the availability of natural resources, technology adoption, development of human capital, focus on environmental sustainability, and seriousness towards SDGs. Policymakers in member countries will have to increase education and literacy to minimize income inequality, strengthen technology infrastructure to expand the reach

of finance to remote locations, and capitalize on natural resources to make the economies financially independent.

IsDB countries can be categorized into three segments based on their readiness for the economic development requirements of the future. The countries are divided into high, medium, and low segments and each segment will have different priorities and strategies to develop a new financial architecture capable of weathering the upcoming challenges.

This part of the report presents the classification of IsDB member countries in terms of their readiness and discuss briefly the common key national priority areas for the financial sector.

#### COUNTRIES WITH LOW READINESS

Mali Guyana Gambia Senegal **Burkina Faso** Comoros Mozambique Togo Niger Benin Irag Tajikistan Cameroon Sudan Afghanistan Yemen Cote d'Ivoire Turkmenistan Guinea Chad Guinea-Bissau Djibouti Syrian Arab Republic Somalia Libya Palestine

COUNTRIES WITH MEDIUM READINESS

Kazakhstan Brunei Darussalam Morocco Indonesia Pakistan Kuwait Lebanon Suriname Tunisia Jordan Uzbekistan Uganda Mauritania Bangladesh Nigeria Azerbaijan Iran Algeria Gabon Sierra Leone Egypt Kyrgyz Republic Maldives

#### Qatar Malaysia UAE Bahrain Turkey Saudi Arabia Oman

**COUNTRIES WITH HIGH READINESS** 

Source: Deloitte Touche M.E.

**Analyst note:** These parameters were rationalized based on the range of their scores (on a sliding scale of 0-1). Once the minimum and maximum value were determined, we used the range to give a High (5), Medium (3), and Low (1) scores to countries. The composite score of the countries

were determined by assigning weightages to the parameters and multiplying them with the individual parameter score. The final readiness score for the countries is on a scale of 0-1, which was then categorized as high, medium, or low depending on the score.

This classification was prepared by Deloitte Touche M.E. IsDB does not guarantee the accuracy, endorse or approve and makes no warranties, representations and undertakings related to this classification.

# **2.3 HOW READY ARE IsDB COUNTRIES FOR THE FUTURE?** *Countries with higher readiness for the future*

ountries such as Malaysia and the GCC countries fall under the high readiness category. Clearly, these are the countries that contribute most to the southsouth relationship that IsDB promotes. They have better governance and regulations, already have established financial systems in place, and are rich in natural resources, primarily petroleum. These relatively developed economies among the IsDB member countries have taken several initiatives to improve their financial systems by launching national-level strategies. Malaysia has the highest financial inclusion in south east Asia. These countries present examples, for the rest of IsDB member countries, of how a country can strengthen its financial system.

With a level of achievement in strengthening their financial systems, and backed by a high level of technological adoption, and investment in human capital, the strategic priorities of financial services players in the country are towards digitization, innovation, and improving cybersecurity. In line with the direction of this report, some counties of this category have already engaged the reflection to transform their financial system such that it achieves simultaneously economic, social, and environmental outcomes, thereby clearly indicating the strategic goal towards institutionalizing equitable and sustainable finance..



Figure 26: Future development priorities of countries with high readiness for economic development

#### DIGITIZATION

In a future of finance forum in Kuala Lumpur, the governor of Bank Negara Malaysia (Central Bank of Malaysia) outlined how Malaysia is developing its financial system based on innovation and technology. Considering Malaysia's advanced financial system, the other countries can take this route as well. First, Malaysia is building interoperable infrastructures which will start on the foundations of open access to a shared payment infrastructure for banks and non-banks alike. Digitization of finance will be possible only if the adoption of technology is strong in the economy. Thus, it is important to have large-scale technology infrastructure in place, including a national digital identity system, nationwide broadband connectivity, framework for open API and open banking, and a clear cloud policy.

#### STRONG REGULATORY FRAMEWORK

Malaysia is also strengthening platforms for collaboration as Bank Negara Malaysia is collaborating with financial industry players for establishing a Financial Threat Intelligence Platform established joint working groups with the industry to explore the application of technology and improve market infrastructures such as open Application Programming Interface (Open API) and distributed ledger technology for trade finance process. Qatar's Fintech strategy is being created in cooperation with local financial institutions and technology firms. The Qatar Central Bank is planning to develop an updated regulatory framework that supports innovative initiatives. The Central Bank of Kuwait announced in 2018 that it had issued a regulatory 'sandbox' framework for Fintech encouraging companies and individuals to test their innovations built on or associated with the electronic payment of funds, in a safe environment. Transformational technologies such as Blockchain are also making a significant impact in the future of finance initiatives across these countries. In the UAE, Abu Dhabi Global Market (ADGM) has adopted a Fintech strategy to encourage applications and solutions based on Blockchain technology.88 The ADGM was the first in the MENA region to establish a dedicated and open Fintech regulatory framework. The ADGM Regulatory Lab is one of the most active global Fintech regulatory sandboxes. In 2018, the ADGM was awarded Financial Center of the Year award for three consecutive years, for increasing the efficiency of financial services and supporting financial inclusion. While AGDM has launched a broad range of the region's first initiatives, some of them are advocating thought leadership Fintech solutions, launching a holistic tech start-up license and an entrepreneurship program for the SME community, and establishing a crypto-asset regulatory framework.

# OPEN INFRASTRUCTURE FOR INFORMATION SHARING

Countries with higher readiness are working on creating framework for open infrastructure to strengthen the information sharing between entities in the financial system while collaborating with industry representatives to take measures against growing cyber-threats. These governments are using Fintech to upskill the working-class and creating jobs. New innovative regulatory approaches such as creating a 'sandbox' of regulatory guidelines are being promoted to attract innovative companies to create a more inclusive financial infrastructure. Countries are also experimenting with transformational technologies such as Blockchain to improve transparency and increase accountability.

#### **MOVE TOWARDS SUSTAINABLE FINANCING**

As the best practices for sustainable finance continue to develop globally, a number of large global financial institutions are already enhancing their portfolio composition with sustainable assets, developing sustainability-related products and services, applying internal energy and waste management policies, and using newer tools such as environmental risk management.

#### SET GUIDING PRINCIPLES

In 2020, the Dubai Financial Services Authority, together with the UAE Central Bank, the Insurance Authority, the Securities and Commodities Authority, Nasdag Dubai and other bodies published their first guiding principles on sustainable finance in January 2020.89 The panel created a working group to advance sustainable finance practices, all aligned with the UAE Green Agenda 2030, which supports the creation of a competitive knowledge-based economy, social development and enhanced quality of life, sustainable environment, clean energy, and sustainable use of resources. Malaysia created a conducive ecosystem for Islamic sustainable finance by creating frameworks and guidelines for the ecosystem, through the participation of its six key institutional ESG investors, including Khazanah Nasional Berhad, the retirement fund, and Employees Provident Fund (signatories to the United Nation's Principles for Responsible Investment), utilizing highly-skilled Islamic finance workforce, raising awareness on ESG and high

levels of government support through policy tools and incentives. The Value-Based Intermediation model driven by Bank Negara Malaysia in an aim to re-orient Islamic finance business models towards realizing the objectives of Shariah is a flagship initiative. Bahrain, one of the largest financial centers in the Arabian Gulf, is increasingly discussing sustainable finance opportunities, which is in line with the Economic Vision 2030. The Bahrain Association of Banks has already established a permanent committee to examine how the banks in Bahrain can contribute more to achieving sustainable development's strategic goals. Pakistan has developed a National Financial Inclusion Strategy (NFIS) that lays out the vision, framework, action plan, and target outcomes for financial inclusion. This framework is supported by key initiative like the "Digital Pakistan" initiative in 2019 to create a digital ecosystem with infrastructure and institutional frameworks for the rapid delivery of innovative digital services, applications, and content. The State Bank of Pakistan (SBP) launched the National Payment Systems Strategy and the Raast initiative that enable endto-end digital payments among individuals, businesses and government entities instantaneously.

# ENCOURAGE THE PRIVATE SECTOR FOR SUSTAINABLE PROJECTS

With the GCC countries building new infrastructure projects, there is already an excellent momentum for sustainable infrastructure within the region. In recent years, Bahrain has been developing new projects and upgrading its existing infrastructure across a wide range of sectors, including social housing, healthcare, transportation, and energy. Sustainability is at the heart of both public and private sector projects in the region. Various development finance institutions, including Tamkeen and the Arab Fund for Economic and Social Development are working to develop entrepreneurship by providing the knowledge and funding to develop sustainable projects. An accelerated and radical shift toward sustainable business strategies could unlock more than \$637 billion and generate 12.4 million jobs across the region by 2030.<sup>90</sup> A number of oil-exporting countries in

MENA, including Saudi Arabia, Bahrain, Oman, Qatar, and the UAE, have launched plans to diversify their economies, as oil prices drop and the primacy of fossil fuels wanes. However, the total economic benefit could be far larger if other sectors, such as information and communication technology, and achieving women's equality, are factored in. Private businesses will have to bridge the investment gap needed to achieve the SDGs in the region. Businesses in the region will have to provide solutions to promote inclusivity and connectivity, which in turn will create good jobs with fair wages and conditions, and address unemployment, particularly among young people and women.

Sustainable financing in countries with higher readiness is based majorly on developing close collaboration between various government arms and creating working groups to align the agenda with long-term development goals. It is also supported by the involvement of major institutions in these countries. Along with that, governments in these countries promote talent development to create a sustainable working ecosystem.

#### DEVELOPMENT ASSISTANCE FOR LESS-DEVELOPED COUNTRIES

While IsDB member countries within this category do offer aid for the development of less-developed IsDB countries, the idea that development can be achieved largely through foreign aid alone is discredited. Globally, countries that have experienced significant improvements have done that by engaging with markets and international trade. A similar model can therefore be applied among OIC countries, and policies should be developed in the following key areas:<sup>91</sup>

- **1. Reform international trade policies** so that lessdeveloped countries can gain a greater share of the benefits derived from trade.
- 2. Recognize international migration as an element of trade policy and a highly effective means of reducing poverty.
- **3. Reform finance to stop the siphoning** off of income and assets from less-developed countries to rich countries by corporations and national elites.

## **2.3 HOW READY ARE IsDB COUNTRIES FOR THE FUTURE?** *Countries with moderate readiness for the future*

ountries such as Morocco, Gabon, Indonesia, Egypt, and Bangladesh are categorized under the segment that has a moderate level of financial inclusion, medium to low governance, and a moderate level of technology adoption and investment in human capital. To tackle the future, these countries will have to

primarily capitalize on the available natural resources and develop human resources. Needless to say, strong governance policies and financial inclusion will help them join the bandwagon of growth. The priorities for economic development in these countries include the following:

#### Figure 27: Future development priorities of countries with moderate readiness for economic development

Technology powered financial inclusion Capitalize available resources

Source: IsDB

# STRENGTHEN TECHNOLOGY TO INCREASE FINANCIAL INCLUSION

Financial inclusion is a crucial objective for economic development. It enables broadening access to means of payment and allocating capital to the large underserved part of the population. While financial inclusion has been the buzzword for the last few years, technology-based financial services have propelled innovation to improve inclusion and make daily financial operations accessible and user friendly. Emerging economies such as China, Kenya, and Indonesia are leapfrogging the developed world.

# REALIZATION OF THE BENEFITS OF FINTECH FOR INCLUSION

Indonesia is preparing to brace future disruptions with the government's 2020 Go Digital vision to boost overall growth,

improve skills of the working class, and create jobs. The Jakarta One Card is a good example digital payment system, which combines social assistance with public transport. **The growth of Fintech innovation can be seen from the increasing number of registered and licensed peer-to-peer (P2P) lending operators** under the authority of the Financial Services Authority (OJK), as well as Fintech companies offering payment services licensed by the Central Bank of Indonesia. In May 2019, the Central Bank of Egypt (CBE) published the framework of its Fintech regulatory sandbox for its Innovative Financial Technology Lab to encourage new Fintech solutions in Egypt's financial system, help CBE identify regulatory challenges facing the Fintech industry, bolster investments in Fintech and contribute to CBE's Fintech understanding to make more robust policies. In an effort to expand access to financial institutions, **the Central Bank of Nigeria is planning to license more payment providers with the goal to improve the financial inclusion rate by 20%, bringing 80% of the population within the financial system by the end of 2020.** In Bangladesh, more than 70% of the population were excluded from the financial industry. Therefore, the emergence of Fintech is essential to address the large unbanked population. One of the platforms of Fintech is Digital Financial Services (DFS), consisting of a broad range of financial services such as payments, credit, savings, remittances, and insurance, delivered through digital channels.

#### THE MOBILE PAYMENTS MODEL

The term Fintech often misrepresents itself by relating to the adoption of smartphones and the availability of high-speed telecom networks. While technology infrastructure is the backbone of Fintech, it is not the most difficult challenge in improving financial inclusion. Kenya's m-Pesa is a classic example of basic mobile phones for money transfer, financing, and microfinancing service. Since its inception, m-Pesa has expanded to seven countries including Egypt and Mozambique. A similar model is now being tried by other countries. In Bangladesh, bKash is a prominent player in mobile financial services, which processes more than 5 million transactions per day, with an annual value of \$30 billion in annual transactions.92 Both m-Pesa and bKash have developed an interface based on an Unstructured Supplementary Service Data, which is accessible by the cheapest handset. They also have a large network of retail points where users can deposit money into their accounts and receive disbursements, including salaries, loans, and domestic remittances.

#### NOT JUST M-PESA

Having said how the m-Pesa model can be replicated, it is also important to highlight what Nigeria has done to promote inclusion. The Nigerian Interbank Settlement System (NIBSS) is a shared services infrastructure for facilitating payments and promoting electronic payments across the Nigerian financial services industry. The NIBSS, which is owned by the Central Bank of Nigeria and all licensed Deposit Money banks in the country, drives collaboration with all Nigerian banks, Card schemes, Processors, Payment Terminal Service Providers, Mobile Money Operators, Telecommunication providers and other Payment Service providers to improve the adoption of Electronic Payment in Nigeria. The presence of NIBSS is among the reasons why m-Pesa's success in Kenya could not be replicated in Nigeria.<sup>93</sup>

Banks will have to provide the funds, network, and economies of scale to target the unbanked through innovative products. Established banks and start-ups might as well invest in a business model that can provide an economy of scale that offers agent banking or mobile banking as a part of a network of services that scale on the back of the synergy each product creates. The bottom line here is that companies looking to replicate businesses that have worked so well in other countries must learn to **identify the exogenous factors that may have been the secret to the miracle.** 

#### **DEVELOP HUMAN CAPITAL**

Capitalization of natural resources and diversification of the economy will only be successful if people participating in the economy are capable. Matters of economic growth and decline hinge on the population. Human capital is a source of both increased productivity and technological advancements. The major difference between the developed and developing countries is the rate of progress in human capital. To improve a country's human capital, it is important to educate and train the population through formal education and trainings.

Among the IsDB members countries, Morocco and Indonesia are focusing exceptionally on the aspect of human capital development. In 2019, the Country Partnership Framework (CPF) in Morocco approved a \$700 million project to accelerate Morocco's adoption of digital technology as a source of improved services, growth, and jobs. One of the pillars of the CPF will focus on human capital, which will allow education to play a role in transforming the economy. The pillar will also focus on upgrading social safety nets and improving the performance of the health sector, to ensure the long-term well-being of every Moroccan. Eight national banks in Indonesia with accumulative assets of up to 46% of the country's total assets, together with WWF-Indonesia, launched the 'Indonesia Sustainable Finance Initiative' to develop human resource programs to empower the implementation of ESG risk management functions in particular, develop sustainable financial products and services and support the government on sustainability forums.



## **2.3 HOW READY ARE IsDB COUNTRIES FOR THE FUTURE?** *Countries with low readiness for the future*

his segment of countries includes Sudan, Afghanistan, Syria, Palestine, and Tajikistan. Among the primary problems in these countries are weak regulatory environment, low governance, unavailability of strong financial systems, and exploitation of natural resources. These fundamental issues and the effect of civil wars have contributed to economic poverty and political instability, and often form a vicious cycle. A lot will have to be done at the fundamental level to take care of the sustainability of these economies. Among the major priorities of the economies are the following:

#### Figure 28: Future development priorities of countries with low readiness for economic development



# STRENGTHENING ACCOUNTABILITY AND TRANSPARENCY

Weak public sector governance, underdeveloped laws and regulations, low public sector wages, and weak accountability are constraints to effective governance. Inefficiency, inequity in public spending and the absence of effective structural reforms needed to improve institutions, human resource management, and infrastructure contribute to the problems related to governance. Development finance institutions and regulators have a big role to play in improving the situation in these countries.

The most important role is to improve oversight and control over public spending. Governance is a cross-cutting issue and needs to be handled at par with fighting corruption and focusing efforts on public financial management. Development finance institutions, including the likes of ADB and IsDB will have to aim at the delivery of public services, infrastructure development and financial system reform. To promote transparency, it will require the efforts of these institutions and the governments to create a supreme audit agency, which can monitor the disbursement and usage of funds in public services and procurement systems. The institutions should channelize funds to support the modernization of tax administration and pilot the electronic payment of aid and government subsidies.

#### **REFORM THE FINANCIAL SECTOR**

Most of the households in this set of countries operate almost entirely through a cash economy. This means they have to save in physical assets, such as livestock or jewelry. Cash gets spent, animals die, and jewelry can be lost or stolen. Primary to the reasons why these countries have a cash-based economy is the low trust in the sector.

Development banks and non-profit organizations such as the Bill and Melinda Gates Foundation can partner with the government to work on the reform of the sector. The starting point of such a reform is building confidence in the sector. While such a reform can be laid out, it is also important for the government to have ownership of the reform agenda. The reform strategy will have to consider poor people, who form most of the population. The most catalytic approach is to drive the development of digital payment systems that can help spread use of DFS quickly, advance gender equality to ensure women share in the benefits of financial inclusion, and support the development of national and regional strategies that accelerate progress for the poor.94,95 The focus should be a continuous approach to finding innovative ways to expand access and encourage markets to determine which products and channels are most effective.

Fintech activities in these countries are very limited. The structural requirements of letting technology seep into the financial sector are broken at most places as central banks in these countries are struggling to find a stable government at the helm. As of October 2019, Somalia, Libya, Syria, and Yemen together made 3.6% of the total Fintech solutions in the Arab world. Due to the lack of a structured financial system in these countries, support for developing a Fintech ecosystem is limited. However, mobile payments are a proven success. Governments can accelerate financial inclusion by establishing regulatory frameworks, policies, and incentives to help a wider variety of digital financial service providers compete on a level playing field while protecting consumers and the financial system. To eradicate poverty, it is most important to empower them with financial tools and services such as bank accounts, mobile money, and credit. Supporting the digitization of social protection programs can help improve their speed, efficiency, security and accuracy, and provide incentives for women to use digital accounts more broadly.



#### Global markets and international trading

Countries with higher readiness for the future could provide support to countries with lower readiness by establishing new trading policies Industrial sea port, Mersin (Turkey)



# HOWTOUNLOCK SDB GOUNTRES VOLATIE WORD2

# THE WAY TO TAKE THE ROAD NOT TAKEN88MONETARY SYSTEM CHANNEL100

# ROADMAP TO REALIZE THE FINANCE INDUSTRY'S POTENTIAL

| Short-Term Target: The Development of Welfare<br>Economy Toolkit      | 108 |
|---|-----|
| Medium-Term Target: Alternative Digital Money                         | 110 |
| Medium-Term Target: Alternative Financial<br>Stabilization Mechanisms | 111 |
| Medium-Term Target: Development of RateTech                           | 113 |
| Medium-Term Target: Charting a New Financial<br>Sector Landscape      | 114 |
| Long-Term Target: Full Reserve Banking                                | 119 |

106

# **3.1** THE WAY TO TAKE THE ROAD NOT TAKEN

# DESIRED FUTURE STATE FOR ISDB COUNTRIES – SETTING THE STAGE

s presented in the previous parts of this report there is overwhelming evidence of fundamental shortcomings in the current financial system. Failing to address these shortcomings could mean the acceleration of the current inefficiencies. Therefore, we witness increasingly numerous voices calling for better policies and institutions to address these failures and for a new system that can deliver the promises of sustainable and shared prosperity. In section 2.1, the report provides an overview of the key challenges requiring a timely focus from policymakers and practitioners. In this part of the report, we propose the key interventions that will form the basis for policymakers. The enablers of this change include defining and pursuing better objectives for the economy, adapting government policies (economic and social) and (financial) regulations to allow the attainment of the new objectives and finally redesigning monetary and financial architecture and institutions, leveraging on

technological and institutional progress. The progressive agenda for the financial sector promoted in this report is naturally enshrined in the principles of Sharia.

#### THE WAY TO TAKE THE ROAD NOT TAKEN

It is well recognized that the global dominance of GDP as the focal reference metric of economic progress has biased global public policies in a way that underestimates the effects of externalities and adverse market outcomes such as inequality, the depletion of natural resources and the destruction of the environment. It is also well recognized that basing public policies and economic management on more comprehensive statistical measures of socio-economic development, such as the ones that take into account quality of life, non-market-based activity, natural capital depletion and inequality will undoubtedly lead to better targeted policies and increased overall welfare.



#### Figure 29: Theory of change for a financial system that delivers better economic outcomes

Designing alternative statistical metrics to inform public policies is not a trivial task. Many social development measures have been developed over the years. But none has been widely accepted as a definitive global reference.

For one, any new indicator of sustainable socioeconomic development needs to both capture an intuitive narrative that can shape public opinion but at the same time be grounded in sound economic theory to credibly inform policy matters. In many cases, alternative indices capture one side of the equation but not the other. The Happy Planet Index, for example, provides a very compelling narrative but is seen as removed from reality. The Human Development Index on the other side has been widely used by governments thanks to its simplicity, albeit it does not capture environmental concerns. However, there are a few indicators that stand out as potential candidates for a new universal measure beyond GDP (see Box 3).

A major impediment to progress in this front is the difficulty to collapse the multidimensional facets of welfare into a measure that can coherently be combined with the monetarybased GDP. Moreover, there is a need to develop a new economic theory that provides sound underpinnings for any credible move "beyond GDP". As a social science, macroeconomic theory relies heavily on empirical relationships. Changing the leading indicator would require thorough reconsideration of the basic building blocks of macroeconomic theory.

#### **Box 3: Example alternative social progress indicators**

The Adjusted Net Savings (ANS): is an indicator which aims to capture the true savings rate of the economy. It is defined as "gross national savings adjusted for the annual changes in the volume of all forms of capital". In other words, it looks beyond traditional measures of national wealth/ savings, to include measures of natural resource depletion, damages from pollution, and investments in education.

**Genuine Progress Indicator (GPI):** is an indicator based on the Index of Economic Welfare (ISEW), which was developed by Herman Daly and John Cobb. The ISEW is an extended monetary account that was designed to start from a baseline of personal consumption (much like GDP), and to adjust that figure to account for a number of additional costs and benefits not included in the GDP metric, such as non-market production and environmental degradation.

**The Social Progress Index (SPI):** is an indicator developed by Massachusetts Institute of Technology and Harvard University and influenced by Nobel Prize laureate Amartya Sen and the work of the Commission on the Measurement of Economic Performance and Social Progress.

However, given the dire need for an alternative paradigm and the amount of attention dedicated to this topic, we expect that, in the coming years, we will see several countries exploring the "roads not taken" so far. New innovations in the domain of welfare-focused fiscal and monetary policy making, driven principally by an acceleration in the development of better welfare measures and indicators will shape the future of the financial sector.

#### **CREATING A NEW GLOBAL NARRATIVE**

Any new measure requires wide recognition and general acceptance in order to build consensus and achieve its goals domestically and globally. As Lehtonen et al.<sup>96</sup> show, for a measure to influence public policy effectively, it requires its own narrative to be internalized within the belief system of policy makers who will act upon it, and also within the global and national world view of non-governmental economic agents to reach top down and bottom-up buy-in. A global coordination is therefore essential to provide legitimacy and credence to the new welfare indicator.

Fortunately, the principles of welfare discussed in this report, which are the subjects captured by the new indicator are increasingly part of the international economic debate. They are also widely shared by households as consumers who are demanding more from producers and from households as investors who want to see their savings ethically invested. The SDGs are "aspirational" indicators that have successfully achieved global consensus and are adopted by almost all countries. While very useful to converge on the definition of core welfare indicators, it stops short unfortunately of providing the economic theory that would be the basis of linking fiscal and monetary policy to the optimal improvement in each indicator. As discussed above, the SDG indicators are not easily translatable into an equivalent "output" measure that weighs each component of the dashboard.

Nevertheless, the SDGs focused global discourse on a specific set of very detailed sector-level indicators which prompted a tremendous improvement in the coordination and complementarity of global aid and development finance. They provided governments with a starting point for nationallevel discussions and a dashboard to measure progress.

As was the case for the SDGs, the global community needs to get urgently behind a universal alternative reference indicator for economic and social welfare that goes beyond GDP.

#### **NUDGED NATIONAL POLICIES**





Source: IsDB

With a globally accepted indicator, coupled with a sound alternative to the existing fiscal and monetary policy framework, national governments have the choice to adapt, pilot and then mainstream the welfare paradigm shift in their domestic contexts.

In this section we present suggested mechanisms by which governments can cascade this theory of change in national contexts. The three levers considered are

- National Planning and Prioritization
- Taxation and Regulation
- Monetary Policy

#### NATIONAL PLANNING AND PRIORITIZATION

The first and easiest change mechanism is the inclusion of the indicator in the "utility" function of the government. This means that by acknowledging a specific measure of multidimensional welfare as the objective to be optimized by national policies, all spending items will be assessed and evaluated from the perspective of increasing such benefits. This can be piloted at regional levels of the government to generate robust contextual evidence before scaling up to the national level. One example of such approach is the adoption of the Genuine Progress Index in the annual budget of the State of Maryland.

Other countries have already adopted nationwide welfare-driven planning and prioritization and the effects of this policy on welfare are starting to emerge.

New Zeeland adopted a social cost-benefit analysis tool called CBAx in the context of the Living Standards Framework (LSF).<sup>97</sup> The tool is used by all ministries and agencies in their budget submissions and is used along the traditional metrics of output to balance prioritization for social sectors such as health, education and natural capital preservation. In Paraguay, the government adopted the Social Progress Index as a guiding metric for budgetary expenditure along with GDP. Significantly, this change is attributed to the doubling of expenditure on nutrition programs.<sup>98</sup>

#### TAXATION AND REGULATION

The opportunity presented by a universal indicator, as an aggregate measure of economic activities contributing to the overall welfare function, is that it paves the way for holding individual economic agents accountable for their contribution to collective welfare. Taxing negative externalities is nothing new; however, a direct universal indicator-based taxation is unprecedented.

#### Taxation

#### Non-Financial Sector

The financial sector and large corporations have been rated on financial strength for decades. Green and ESG ratings have emerged more recently to respond to the demand for ethical and environmentally conscious investments. It is thus within reach to gradually phase in a wider welfare rating requirement. New technologies that would facilitate the implementation of such rating are explored in this report. Financial Sector

Banks and financial intermediaries will have also welfare scores that among other things include the weighted sum of their portfolio companies' scores. A Bank's excessive contribution to negative externalities may end up costing it a higher tax bill and hence will encourage banks to balance their portfolios by allocating more funding to welfare maximizing activities.

#### **Regulations for Increased Stability**

Financial bubbles are arguably endogenous to the financial system. The financial system design has a major role in

creating financial bubbles and their repeated occurrence has shaped the structure of the economic system such that it minimizes the losses to the banks' shareholders, executives and professionals from the fallouts of these bubbles to the detriment of the taxpayers.

There are many innovative regulatory means to address this issue. One such notable approach is to require banks and financial intermediaries to participate in the equity of the sectors that are prone to asset price bubbles such as real estates.<sup>99</sup> This mechanism aims to create a natural alignment of interest between banks and the rest of the economy when it comes to the formation of credit-fueled bubbles.

Another, more systematic approach would be to require all financial intermediaries to have a mandatory participation as equity investment in a National Development Fund. The Fund's proceeds will be reallocated through privately managed narrow banks and asset managers to the non-rent-seeking and productive sectors of the economy that maximize social welfare. The required investment will be slightly bigger than the underinvestment by the specific financial intermediary. As the proposal is for an investment and not a tax, it is unlikely to introduce any deadweight losses while it resolves the market failure of under allocation to the productive sectors due to financialization.

This measure, other things being equal, will lead to lower financing available to rent-seeking bubble-prone sectors. Indeed, by introducing such a measure the financial sector will adjust by directing excess liquidity to the non-rentseeking sector which in turn has a higher welfare contribution to the economy. The additional benefit is that it will create a widespread equity buffer that shall absorb systematic losses and align interests enough to force coordination. Another notable innovative stabilization mechanism, this time targeted to capital markets, is the Market Stability Fund concept of Dr. Sami Al-Suwailem.<sup>100</sup> Such self-financed mechanism does not suffer from the drawbacks of Tobin tax acts as a stabilizer mechanism by re-balancing excess supply or excess demand. A portion of excess is kept in a fund for a "cooling" period and hence is not settled and does not contribute to the short-term movement of prices.

#### MONETARY POLICY

In addition to fiscal policy and regulations, monetary policy can play a very important role in controlling money supply and tilting its allocation in a way that maximizes welfare.

The traditional role of central banks to control inflation and unemployment with adjustments of the central bank interest rate is changing quickly as the prolonged financial crises forced central banks to use all the available tools to shore up liquidity.

One mechanism to directly support welfare objectives is for central banks to announce their willingness to buy capital market instruments issued by companies that score higher on the welfare indicator. This way, money supply is directly injected in target companies. The European Central Bank and the Bank of England are considering this approach in their asset purchase programs (QE).<sup>101</sup> Central banks are also thinking of so-called "Green Swan" risk, an extremely financially disruptive events that could be behind the next financial crisis. Through their regulatory and supervisory role, central banks can coordinate climate mitigation policies such as carbon pricing, the integration of sustainability into financial practices and accounting frameworks and the development of new financial mechanisms at the international level.<sup>102</sup> On 14 July, the European Commission adopted a set of proposals to make the EU's climate, energy, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030. Among it is a the EU Taxonomy Regulation that provide companies, investors and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable. The taxonomy establishes six environmental objectives:

- Climate change mitigation
- Climate change adaptation
- The sustainable use and protection of water and marine resources
- The transition to a circular economy
- Pollution prevention and control
- The protection and restoration of biodiversity and ecosystems

We present in this report a novel idea for a potential monetary policy without direct asset purchase (see Annex 2). Our proposed approach does not specifically pick winners and losers but takes a helicopter view of the economy and adjusts the money supply using the readily available tools of the central bank. As such our approach could be implemented relatively easily and is backed by the strong empirical and theoretical evidence underpinning the underlying models used.

Central banks aim to stabilize prices and control unemployment by setting and meeting inflation and unemployment targets, the latter being linked to output gap through Okun's law. The main lever that central banks use to achieve this objective is interest rate adjustments.

Indeed, the Taylor rule is widely used to inform rate adjustments as a function of the output gap and inflation. By decomposing output components into "positive" components and "negative" components, one can adjust the Taylor rule in three ways. First, one can specify a "positive" potential output and a "negative" potential output. These represent the levels of respective outputs that maximize social welfare - now augmented with the new welfare indicator. Second, the Taylor rule will adjust separately and with different slopes to the positive and negative output gaps. Third, for each output gap component, the rule will be asymmetric in response to expansion and contraction of output.

Similar adjustments could be introduced to all alternative rules, as long as they are based on a response to output gap. For example, the McCallum rule,<sup>103</sup> which adjusts money supply (M0, M1) to output gap and performs better in financial crises, can be modified.

The resulting monetary policy favors "positive" output growth by allowing more expansionary policy below potential and less contractionary policy above potential. For "negative" outputs, the resulting effect is the opposite: more contractionary policy when above potential and less expansionary policy when below potential.

As we will present in the following sections, such announced central bank policy will displace the rational and profit maximizing behavior of the financial sector. By anticipating an increased cost of capital and decreased margins, the financial sector will adjust allocation to "positive output" generating investments.

The same effect is also expected to displace the labor market equilibrium as the differential effect of employment in different sectors will lead to increased demand for labor in the "positive" sector.

#### **TECHNOLOGY AS AN INSTRUMENT OF CHANGE**

The world is witnessing a new data-driven industrial revolution. In all economic sectors, the emergence of new technologies powered by huge amounts of data and an accelerated advancement in computing power is causing tectonic shifts in competitive landscapes. This trend is only strengthening globally and OIC countries are generally lagging.

However, there are notable exceptions. Many OIC countries have been alert to this trend and are placing themselves at the forefront of the new industry revolution. These governments have been leading efforts of integrating and encouraging the usage of cutting-edge technologies such as Big Data, Machine Learning and IoT to promote the emergence of new business models that are capable

of challenging incumbent industries and delivering an increased social welfare.

In addition to these efforts, and in the context of the Welfare Economy, we foresee governments would support the establishment of a completely new technologically enabled ancillary service: the RateTech.

The amount of data that permeates the IT infrastructure of any company has a wealth of information that can provide reliable real-time signals on operational aspects of the company, including the welfare score.

Therefore, as is currently the case with financial audit, governments could require corporates to appoint certified welfare rating providers. A regulated, principle-based approach could revolutionize the way corporate level indicators are collected.

By creating a demand for corporate level welfare ratings, governments will open the door for the emergence of a new ancillary industry.

The new technologies have wider reaching applications beyond corporate welfare scores. Information asymmetry between investor and investee is an inefficient feature of the current financial system. This inefficiency manifests itself in many forms. First, the incentives of the investee and investors are not fully aligned leading to management practices that do not maximize social welfare. Second, the asymmetry engenders the overallocation to less risk-sharing instruments such as unsecured debt. Equity investment suffers therefore from relatively high transaction costs as it requires the high fixed cost of indepth knowledge of the investee company in addition to the ability to monitor the valuation of the investment.

Decreasing information asymmetry through technological solutions will undoubtedly create new opportunities for the financial sector that were beyond reach in the past.

#### NUDGES FINANCIAL BUSINESS SECTOR

The financial sector will undoubtedly adjust should the policy directions outlined above materialize. In this section we present the expected behavioral response of the financial sector and how such response will shape a new landscape where new opportunities are available for the agile market players.

We will analyze the financial sector response to each of the narratives above and conclude with a comprehensive picture of where the combined forces take the sector.

#### IMPACT OF TAXATION AND REGULATION

In addition to internal stability and solvency, regulations will likely be more focused on inducing financial intermediaries to minimize the risk of systemic financial asset price bubbles. As per the discussion above, banks in particular, will be induced to either invest in incentivealigning National Development Funds or specialize enough to carry out such equity investments.

The cost-benefit of specialization will likely push the banks into leveraging on their current relationship with the non-financial sector to build specialization in specific areas where they possess a competitive advantage. This will materialize into more inclusion of the banks as equity investors within specialized supply chains.

The trend is reinforced by the fact that the National Development Fund will allocate capital to banks that have the appropriate track record and technical advantage compared to the competition.

These measures are also a driver to strengthen equity fund managers that can bid for allocations from the National Development Fund and could create competition between banks and asset managers, pushing margins down and increasing social welfare. On the other hand, taxation along the social welfare indicator will directly adjust the expected risk-return from investments in sectors with negative externalities. As such banks will naturally adjust their portfolio allocation, increasing the share of positive externalities sectors. As per above, such forces will push banks to specialize in these new sectors to generate superior returns.

#### IMPACT OF MONETARY POLICY

The report introduces two potential channels for monetary policy response in a welfare indicator-based economic model. The first one is targeted quantitative easing to financial institutions that have the track record for funding positive externalities sectors. To fully benefit from this trend, banks will position themselves with "specialized welfare maximizing" windows. Such windows will be able to build the expertise and track record to benefit from the targeted monetary policy. These windows, subsequently, will issue securities that the central bank can purchase at a premium to shore up specific positive externalities sectors.

Banks are therefore likely to consider sectors suffering from market failure because of below market rate risk returns, especially if the quantitative easing is ensured in an economic crisis where banks would compete for liquidity. Social welfare would be as a result an insurance policy for the more participative banks aligning the bank's shareholders profit maximizing and the overall economic welfare objectives.

The second mechanism introduced above is the notion of differentiating response function from the central bank to signals of output expansion and inflation. Coupled with the taxation lever, such mechanism will lead to a collective effort from all financial agents to minimize expected future capital costs. As such the coordination to collectively under-invest in negative externalities and balance portfolios towards positive externalities will constitute the pareto efficient equilibrium.

#### IMPACT OF RATETECH AND FINTECH

As governments push for more cost-efficient and reliable technological solutions to inject transparency and resolve information asymmetry, Fintech and RateTech will likely take center stage in the industrial organization of the financial sector.

The technological disruption in the financial sector is well underway in developed countries with incumbent banks facing an aggressive competition from a new breed of banks in addition to the looming existential threats from Tech Giants.

The predominant universal bank model will be the most challenged, new specialized business models will emerge to take advantage of the possibilities of the new technology.

Lower transaction costs and increased access to corporate level operational data in real time means that financial institutions will no longer be bound by a monolithic debt intermediation. Machine Learning powered algorithms will play an instrumental role in opening a new chapter in automated due diligence and accurate and private real-time security valuation.

This is likely to be a game changer that will substantially increase the possibilities for a more diverse financial landscape.

#### **A NEW HOPE**

The top-down forces discussed above are likely to shape a completely new financial landscape by 2030.

#### Increased competition

As a result of the above, we see a likely increase in

competition in the financial sector. Technology and targeted monetary and fiscal policy will open the door for new entrants that are willing to allocate capital into social welfare maximizing sectors.

#### Increased stability

The stabilization mechanisms will limit the system's tendency to generate bubbles and would internalize incentives to stave off bubbles earlier than before.

#### Increased specialization

Universal banks will be looking into building sector specialization as they take equity investments and compete to maintain margins in new sectors that were historically underserved.

We expect the emergence of sector development banks that target SMEs, social enterprises, green infrastructure etc.

Most notably, we foresee the financial sector taking a lot of interest in entering the philanthropic enterprise sector. Financial institutions will compete to collect philanthropic deposits and targeted quantitative easing from activist central banks to provide a new suite of products for social enterprises and NGOs.

#### CHANGES THE INCENTIVES OF THE NON-FINANCIAL BUSINESS SECTOR

#### CORPORATES

The regulatory pressures discussed above and the likely resulting displacement of funding allocation across sectors, will surely drive the corporate sector into further alignment with the welfare objectives.

#### Governance

Key to the corporate level indicators introduced previously is the governance structure of the corporations. As a direct result of such regulations, corporate governance, by virtue of rational utility maximization, is likely to be more transparent and more inclusive in the future. This is because each corporation will have a mandatory "clean" and comparable to competition signal for their contribution to the economic welfare. This signal feeds directly to the tax bracket applicable by the government, through the taxation channel, and to the cost of capital bracket applicable by banks and investors through the various monetary policy channels discussed above.

Corporate governance structure will more directly and more importantly impact the cost of capital of corporations. We see therefore the likelihood of real change in corporate governance as a distinct possibility in the medium future.

#### **Investment Choices**

In the same vein, by virtue of adjusting the utility function of corporations, their rational response will be to make more investment decisions that were not necessarily profit maximizing in the past such as Research and Development, clean energy sources, sustainable supply chains, community development programs etc.

#### SMES AND SOCIAL ENTERPRISE

As increased funding is now available for SMEs and Social Enterprises, we expect a substantial growth in these underserved markets. This in turn will bring about more competition between the economic agents and is likely to increase the standards of professionalism in these sectors.

# ENABLES HOUSEHOLDS INVESTMENT AND CONSUMPTION ADJUSTMENT

Households are increasingly aware of the issues of welfare inequality, climate change challenges and nefarious effects of speculative and rent-seeking practices. As these intrinsic beliefs strengthen with the availability of "clean" and comparable signals on the various economic agents households interact with, it is very likely that these beliefs materialize in different behavioral patterns which will bring about real change towards a welfare economy.

Max Webber attributed part of the industrial revolution to the prominence of the protestant doctrine. More contemporary evidence shows that households respond significantly to information when making decisions, and that what looks like lack of interest is in reality a deficiency in access to reliable signals.<sup>104</sup>

Households act as both savers and consumers. The theory of change introduced above also impacts the behavior of households in a direct and indirect fashion.

#### HOUSEHOLDS AS CONSUMERS

The availability of indicator data on all products will enable households to discriminate between sustainable and non-sustainable producers. At equal price and quality, households will naturally choose products that deliver superior welfare outcomes.

#### HOUSEHOLDS AS INVESTORS

The same logic applies for households' decisions as investors. The availability of reliable welfare score signals will induce households to easily allocate their investments to companies that maximize social welfare.

#### **BACK TO BUSINESS**

Businesses will also have a bottom-up pressure from households as consumers and investors to maximize their corporate welfare score. This will fuel even more competition between companies to differentiate products to attract a bigger market share of increasingly militant investors.

#### SYSTEMWIDE BEHAVIORAL NUDGES

Change in individual behavior can lead to lasting and significant improvement in outcomes. It is well established that individuals do not make optimal economic choices and sometimes have to be nudged towards their optimal decisions. Individual attitudes towards pollution and environmental protection are an important factor in shaping aggregate environmental outcome. Although most people would agree concerning the dangers paused by climate change and the need to improve their collective carbon footprint, education alone, however, is incapable to bring about the behavioral change needed to improve outcomes. Like many other socially adverse phenomena such as corruption, moral individual attitudes are extremely averse to pollution and climate change, yet people are largely unwilling to change their energy consumption and individual carbon footprint. However, when different nudging techniques are used (use of technology, green default, peer analysis etc.), individuals' environmental impact is more likely to improve significantly.

The insights form behavioral economics, nudge theory and the significant advances in digital technology such Big Data, AI, and Fintech offer a viable alternative to deploying multiple digital nudging schemes quickly, with instant feedback, better data and research to find out which designs work best and ultimately to scale successful designs and reach wider audiences quickly and cheaply. Ultimately through focusing on Islamic principles, one can envisage the use of these tools in the three areas of finance, social development and environmental development.<sup>105</sup>

**Islamic social finance:** nudge techniques and digital banking can be used to make people make better financial decisions, by increasing their savings and making better investment decisions, by for example, using Roboadvisers that can understand the financial profile of individuals and make the specific recommendations.

Second, in the area of **social solidarity, charity and philanthropy**, the Zakat and Waqf participation of individuals can be improved through systematically using technology and by providing transparency and quality assurance to individuals which will allow them to see how their contributions are used in real time (smart contracts is one technology that enable this).

Third, individuals can be guided towards **taking better investment decisions**, by linking their savings and investments to SDGs and by using the right design. This can both improve the saving rate of individuals and the channeling of those savings towards specific regions or sectors where individuals can see the most benefit in the broadest sense out of their savings.

Similarly, nudge theory and technology can be used to encourage **environmental development** through reducing resource use, carbon footprint and environmental degradation. The range of technologies and capabilities to implement different policy designs can deliver a lasting effect on individual and community attitudes towards the environment and social cohesion, which from an Islamic standpoint is a priority and should be fully internalized in the design and delivery of the ideal Islamic financial architecture.<sup>106</sup>

Manufacturing workers at automotive plant in Malaysia Financing competitive industries is crucial to maintain evolving growth

VALS

10

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2

0

# **3.2** MONETARY SYSTEM CHANNEL



#### Figure 31: CBDCs and full reserve banking's potential for a more efficient and stable financial system

#### **MONETARY SYSTEM CHANNEL**

The development of the modern monetary and credit system has mirrored the development of human society, its institutional and technological configuration being as much a product of design as it is of expediency. For example, the emergence of the Federal Reserve System was the result of multiple banking crises in the US while the enactment of the Glass-Steagall Act was a moment of sobriety in the history of US financial regulations as much as its repeal was, in hindsight, a lapse of judgment.

The Great Depression being the backdrop of the Glass-Steagall Act could have easily been the theater of much more radical and deeper monetary and financial reforms. Amidst the woes brought about at a first stage by a stock market crash then by a widespread banking crisis leading to a momentous credit (read monetary) crunch, it was evident that the existing arrangement was critically flawed, prompting many academics to propose the so-called Chicago plan for banking reforms. This was meant to be a system predicated on a 100% reserves banking in which all bank credit is backed by government credit or long-term investment deposits, while in its extreme form the only type of debt instrument allowed is that which is issued by the sovereign, while all other forms of private financing are delivered through equity like instruments.<sup>107</sup>

The conditions that led to the first radical rethink of the monetary and financial system are not quite here, although we came mightily close to them during the GFC in 2008. Nevertheless, the sort of issues confronting our world today are no lesser reasons to warrant a fundamental rethink of the monetary and financial systems.

Although a wholesale 100% reserve banking is not a desirable nor a feasible option in the immediate future, there are many reasons to believe that a hybrid system can be a viable alternative. Cryptocurrencies constitute now both a threat and an opportunity to central banks and the current monetary system. Cryptos are increasingly challenging the incumbent cash/bank money at a time when central banks

are increasingly dependent on unconventional monetary policy (QE). The opportunity, on the other hand, comes from the potential offered by new technologies to enable central banks to issue Central Bank Digital Currency (CBDC) directly to the public at a low cost. This can provide a potent policy alternative to conducting monetary policy in quiescent times as well as during times of financial crisis.

Here we list some proposals that are both feasible and desirable which can be conducive to the sort of Islamic financial system that is desirable.

- 1. The creation of partial sovereign money system through the adoption of CBDC. The Central bank (CB), through the CBDC will allow the public to hold deposits with the CB directly. The CB will be able to intermediate the deposits through extending noncallable wholesale loans to investment or sectoral development banks that invest these deposits in long-term projects and thus achieve a socially desirable amount of maturity transformation.<sup>108</sup> This system will still allow commercial banks to take deposits and compete with the CBDC, while the CB will commit to the socially optimal level of maturity transformation and would eschew fiscal backing of the deposits it holds for the public. Investment development banks can deliver on the SDG agenda as well as seek financial returns. The aim of the new hybrid system is to achieve better intermediation, better inclusion and channeling funding towards investment development banks that can deliver social and economic outcomes.
- 2. A full sovereign money system which adopts features of the full reserve system. In this system all money supply is issued by the CB. While commercial banks can still act as intermediaries, there would

be two types of deposit. The first type is CBDC Transaction Accounts held with commercial banks or the central bank which are used by the public for transaction purposes only. The second type are Investment Accounts that are held with commercial or investment banks and are backed by investments in long-term projects or assets. These accounts require a significant notice of withdrawal and cannot offer guaranteed returns. In such a system the central bank has full control over the quantity of money it wishes to issue in the economy.<sup>109</sup>

In both cases the CB can broaden its policy toolkit in conducting monetary policy. In addition, we can envisage how QE-type interventions can be used to channel funds towards businesses and SMEs, infrastructure projects and SDG-related sectors in general.

#### **CENTRAL BANK DIGITAL CURRENCIES**

CBDC is generally defined as a new form of central bank money. In fact, central banks already provide digital money in the form of reserves or settlement account balances held by commercial banks and certain other financial institutions at the central bank.

A key distinction between account-based money and the token to record the value of the digital currency is the form of verification needed when it is exchanged. With cash the worry is counterfeiting, while in the digital world the worry is whether the token has already been spent or is genuine (i.e. electronic counterfeiting). Whether centralized or decentralized, having an authority that provide the integrity of the token and of all transaction becomes critical to develop a trusted digital currency market.

The Ven-diagram helps visualize the money spectrum, from physical to digital, and helps derive their applications.



#### Figure 32: Taxonomy of money, based on "Central Bank Cryptocurrencies"

The combination of four key properties will define the scope of the currency usage: issuer (central bank or other); form (digital or physical); accessibility (widely or restricted); and technology (token- or account-based). CBs play the main role in determining the property of money. There are various design choices for a CBDC, including, access (widely vs

restricted); degree of anonymity (ranging from complete to none); operational availability (ranging from current opening hours to 24 hours a day and seven days a week); and interest bearing characteristics (yes or no), with different implications for payment systems, monetary policy transmission as well as the structure and stability of the financial system.<sup>110</sup>

#### **Box 4: CBDC Initiative**

Iceland has been the first country to pass a legislation allowing Digital Currency issuance under the authority of the Ministry of Finance through its Sovereign Currency Act of 2018. The technological protocol will ensure anonymity while also linking each account with a verified government identity that is both encrypted and private. Although the IMF has released a report warning on the risks of such initiative, primarily concerned with cryptocurrency being a second form of legal tender and the level of governance, many countries are exploring and piloting such initiative.

The objectives pursued, independently of the technology underlying the payment system, are always about increasing transparency, accessibility, velocity of money and monitoring capacity. The technological choice will influence the efficiency and robustness of the platform underlying the currency market.

In a series of collaborations from a group of central banks, the Bank for International Settlements has issued the first report assessing the feasibility of public available CBDC in helping central banks achieve their objectives, jointly with the Bank of Canada, the European Central Bank, the Bank of Japan, Sveriges Riksbank, the Swiss National Bank, the Bank of England and the Board of Governors of the Federal Reserve. The report sets out common foundational principles and core features of a CBDC, safeguarding the monetary or financial stability and ensuring that CBDCs will coexist with and complement existing forms of money, promoting innovation and efficiency.<sup>111</sup>

#### **PROPOSAL FOR IMPLEMENTATION (SHORT TERM):**

Technology will increasingly be supporting CBs by providing efficient tools and enabling them to fulfill their mandates. Digital currencies have revealed most of their challenges and opportunities. CBs around the world are exploring their potential applications. Upon addressing the prerequisites from a governance and technical standpoint like data privacy and costumer protection, money laundering, financial/price stability monitoring infrastructure, and volume capacity, CBs would soon be able to entertain a place for digital currencies. CBs could issue labeled digital currency eligible for government services and facilities or to pay taxes as a pilot project before the wider adoption of CBDCs by the public. Such initiative will enable CBs to test new monetary policy instruments to manage the money supply and monitor the financial system through the advantages provided by the new technology in terms of efficiency, transparency and trust without disrupting the existing financial system.

#### **FULL RESERVE BANKING MODEL**

The full reserve banking model regained relevance after the 2008 crisis. A working paper from the IMF undertook an empirical analysis of the full reserve banking model to validate the potential advantages put forward by its proponents. As mentioned, the model envisages the separation of the monetary and credit functions of the banking system by requiring 100% reserve backing for deposits by central bank issued money or "sovereign" money.

Based on the US economy, the paper can provide strong evidence for the viability of the full reserve banking model and backing for the claims first posited by the economist Irving Fisher back in 1936. Those advantages are:<sup>112</sup>

1. A much better control over the major source of business cycle fluctuations, sudden increases and contractions of bank credit and of the supply of bankcreated money.

The quantity of money and the quantity of credit become completely independent of each other. The bank will then depend on obtaining outside funding before being able to lend, thus becoming real intermediaries. This would enable policy to control these two aggregates independently and put a direct money supply control in the hand of a not-for-profit institution like the Central Bank via a systematic economic rule.

- 2. A complete elimination of bank runs. Under the condition of having the banking system with: (1) monetary liabilities fully backed by reserves of government-issued money, thus transferring the entire risk to an institution that has the capacity to create money and (2) credit assets funded by nonmonetary liabilities not subject to runs. This will allow increasing financial stability and help banks in their core transactional and service business model.
- 3.A **dramatic reduction of the (net) public debt.** The stock of reserves, or money, newly issued by

#### **Box 5: Sovereign Currency Initiatives**

Sovereign Money Initiatives have arisen in different countries such as the Positive Money proposal in the UK or the 'Monnaie Pleine' initiative in Switzerland that even went through a referendum process in 2018. The Modern Monetary Theory is the most advanced alternative macroeconomic theory that embed the sovereign money model monitored through fiscal policy.

the government is not a debt of the government but becomes its own equity.

4. A **dramatic reduction of private debt.** The highly negative net government debt position will give it the option of spending part of the windfall in a de-risking financial solution, thus incentivizing financing toward sectors and projects aligned with national goals.

The paper provides strong support for the full reserve banking system through the above advantages without diminishing the core functioning of the private financial system. The model simulation has even revealed advantages beyond what has been proposed by its early advocates. The model generates a sustained gain in output growth resulting from two major reasons:

- A near zero reduction of real interest rate, as lower net debt levels lead investors to demand lower spreads on government and private debts.
- 2. A steady state inflation to drop to zero without posing problems for the conduct of monetary policy. Those advantages provide great economic value through simplified monetary policy and a framework for Islamic Banks to compete on a level playing field with their conventional peers without infringing on its principles.

# PROPOSAL FOR IMPLEMENTATION (MEDIUM TERM):

The full reserve banking model can be implemented through the CB authority providing banking licenses under a redefined banking business model. The CB will thus be the only authority to be able to introduce money in the economy. Licensed banks will then have separated activity with deposit/transaction account and investment/asset management account lines of business. The separation of the deposit portfolio from the investment activities will prevent future systemic financial crashes in the banking industry.

The transaction account deposit taking activity will focus on providing the most efficient transaction facilities at the most competitive pricing, leveraging on digital technology as the new banking business model. Banks will be able to create an account at the CB on behalf of the depositors and, because all national transactions will be centralized at the CB, considerably reduce transaction cost, liquidity risk and improve speed.

The investment account business line would be organized in specialized financing activities from retail and corporate finance down to more patient capital requirement as with project finance.

Because banks will be responsible for mobilizing funding to extended financing, whether from financial markets by designing products to tap in the retail depository saving pool and institutional investors or from the government money injection program, they will have an incentive to build sectorial expertise and would lead to more competition and specialization. This intermediary role will transform the banks' business model thereby lowering the risk profile of their activities compared to traditional banks. Their business model will further integrate data and information in their technological ecosystem and become central actors in financial data sourcing.

Banks will be organized in a network of financial data providers across sectorial activities to produce economic intelligence around the needs and prospects of every industry in the economy. The objective will be to break the linear and siloed industrial process into an interconnected industrial complex in a circular economy, fostering innovation, competition and open access. This will redefine the financial value chain and bring resilience, sustainability and efficiency to the entire banking industrial process.

Under this new business model, the new banks will be in a position to design financial product to channel financing in synergic projects and optimize resource allocation in the economy.

CBs will have the capacity to monitor the money supply allocation and identify proactively concentration risk and incentivize underfunded sectors, thus giving them the tool to effectively steer the economy into a sustainable trajectory.


# **3.3** ROADMAP TO REALIZE THE FINANCE INDUSTRY'S POTENTIAL



Medium-Term Target Long-Term Target

#### **Alternative Digital Money**





## **3.3 ROADMAP TO REALIZE THE FINANCE INDUSTRY'S POTENTIAL** Short-Term Target: The Development of Welfare Economy Toolkit

The Objective

#### Figure 33: Theory of change for the Welfare Economy Toolkit



IsDB invites member countries to join hands in pushing forward the collective efforts for the development of innovative fiscal and monetary policies that will facilitate a better alignment of economic agents with the welfare objectives of the economy.

Starting from the universal objectives of Prosperity, Stability and Fairness, the IsDB and its partners will **converge on a set of principles** that will be adapted to the circumstances and shared aspirations of member countries. The result will be the development of a **Welfare Economy Policy Toolkit** that will serve as a starting point for interested member countries to further adapt and enhance in order to broaden the decision making process and bring additional information for the benefit of national policies.

The IsDB will subsequently support partner member countries to **pilot the policy recommendations** stemming from this Welfare Economy Policy Toolkit to generate evidence that can support the mainstreaming of such policies more widely.

## The Action Plan



Figure 34: proposed implementation road map



IsDB plans to establish a multi-stakeholder working group to develop and **deliver the Welfare Economy Policy Toolkit**. The toolkit will be subsequently maintained and enhanced by the standing working group and its recommendations submitted to the IsDB Governors for consideration on an annual basis. The working group will coordinate efforts along three tracks:

#### Track 1: Statistical Indicators Selection

The first building block of the toolkit is the selection of the statistical indicators quantifying the extent of achievement of an economy's objectives. The working group will build on the existing literature and coordinate with all relevant stakeholders to recommend a set of preliminary indicators, statistical and welfare rating methodologies.

#### Track 2: Fiscal Policies and National Prioritization

The working group will develop the **cost-benefit analysis** and prioritization tools that factor the dashboard indicators. In addition, the working group will **recommend fiscal and taxation policies** that enable a better alignment of the private sector with the welfare objectives.

#### **Track 3: Innovative Monetary Policy**

The working group will explore innovative monetary policy approaches that enable a better targeting of money supply and its redistributive qualities to serve the welfare objectives along the lines presented in this report. CBDCs + People's QE.

#### Figure 35: Tracks to operationalize the Welfare Economy Policy



- Governments: Ministry of Finance, Ministry of Planning / Economy, Social Affairs, Central Bank
- Regulators: AAOFI, CIBAFI, ESG rating

- Academia: Universities, Think Tanks
- Development Partners: UN Agencies, MDBs.

## **3.3 ROADMAP TO REALIZE THE FINANCE INDUSTRY'S POTENTIAL** *Medium-Term Target: Alternative Digital Money*



## The Objective

The IsDB invites member countries to work together to explore the relevance of alternative monetary policy approaches in OIC countries. The objective is to develop an informed opinion on the recent developments in monetary policy discourse with the view to proactively consider OIC countries contexts and aspirations. The threat for member countries from cryptocurrencies is clear. Therefore, CBs in member countries have to take the initiative and start thinking about the issuance of digital currency that best serves their specific needs. There are many benefits to CBDC, ranging from running and administering social programs through direct payment and reducing leakage and waste in such programs to moving to a cashless economy with more efficient and faster payment system. This will also be a steppingstone for more innovative measures regarding monetary and financial management

as discussed above and will open the door to faster and deeper technological adoption and better policy design and delivery.

### **The Action Plan**

The IsDB plans to establish a multi-stakeholder working group to study the trends discussed in the report and produce a regular policy recommendations pack to IsDB Governors.

The working group will produce a first technical report to take stock of the IsDB member countries readiness for an alternative digital money and conduct a deep dive with industry experts into the formulation of a roadmap for the implementation of the use cases identified in the report.

#### Figure 36: Proposed implementation road map

Technical Report on Alternative Digital Money

Pilot the Policy Recommendations of the Report

Source: IsDB

## The Partners

- Governments: Ministry of Finance, Central Bank
- Regulators: IMF, AAOFI, CIBAFI
- Academia: Universities, Think Tanks

• Private sector: commercial banks, tech companies, industry representatives

## **3.3 ROADMAP TO REALIZE THE FINANCE INDUSTRY'S POTENTIAL** Medium-Term Target: Alternative Financial Stabilization Mechanisms



## The Objective

IsDB invites member countries to consider the financial stabilization mechanisms proposed in this report. As the world recovers from the health pandemic and the decade of low growth, the moment is right to devise strategies to enhance the resilience of the financial markets.

The core idea of IsDB's proposal is to require banks and financial intermediaries to participate in the equity of the sectors that are prone to asset price bubbles such as real estate. This shall create a natural alignment of interest between banks and the rest of the economy when it comes to the formation of credit fueled bubbles.

To this effect, a National Development Fund would be established as the recipient of mandatory equity participation from financial intermediaries that are subinvested in the target sectors. The Fund's proceeds will be reallocated through privately managed narrow banks and asset managers to the non-rent-seeking and productive sectors of the economy that maximize social welfare. As the proposal is for an investment and not a tax, it is unlikely to introduce any deadweight losses while it resolves the market failure of under allocation to the productive sectors due to financialization.

Another innovative stabilization mechanism, this time targeted to capital markets, is the Market Stability Fund concept of Dr. Sami Al-Suwailem. Such self-financed mechanism is based on the idea of re-balancing excess supply or excess demand. A portion of excess is kept in the Market Stability Fund for a "cooling" period and hence is not settled and does not contribute to the short-term movement of prices.



#### Figure 37: Proposed financial stability mechanisms

## The Action Plan

IsDB plans to establish a multi-stakeholder working group to study the technical feasibility of these mechanisms and

submit a technical report and policy recommendations to the IsDB Governors.

#### Figure 38: Proposed implementation road map



- Governments: Ministry of Finance, Central Bank
- Regulators: IMF, CIBAFI
- Academia: Universities, Think Tanks

# **ROADMAP TO REALIZE THE FINANCE INDUSTRY'S POTENTIAL**

Medium-Term Target: Development of RateTech



## The Objective

As governments push for more cost-efficient and reliable technological solutions to inject transparency and resolve information asymmetry, RateTech will likely play an important role in the industrial organization of the financial sector.

The amount of data that permeates the IT infrastructure of any company has a wealth of information that can provide reliable real-time signals on operational aspects of the company. Therefore, as is currently the case with financial audit, regulators could require corporates to appoint certified rating providers to score the extent of a company's alignment with the national welfare objectives. A regulated, principle-based approach could revolutionize the way corporate level indicators are collected. By creating a demand for corporate level welfare ratings, governments will open the door for the emergence of a new ancillary industry.

The IsDB invites member countries and Tech companies to work hand in hand in exploring the potential of the new sector that is RateTech.

## The Action Plan

The IsDB plans to establish a multi-stakeholder working group to study the trends discussed in the report and produce a regular policy recommendations pack to the IsDB Governors.

#### Figure 39: Proposed implementation road map



## The Partners

- Governments: Ministry of Finance, Central Bank
- Regulators: IMF, AAOFI, CIBAFI
- Academia: Universities, Think Tanks

• Private sector: Tech companies, ESG and green rating experts

**ROADMAP TO REALIZE THE FINANCE INDUSTRY'S POTENTIAL** Medium-Term Target: Charting a New Financial Sector Landscape



## The Model

SDBs are privately managed entities that compete for a limited number of dedicated licenses from national regulators to address market failures in specific sectors (e.g. Infrastructure, Renewable Energy). These licenses are allocated based on the ability of the SDB to deliver specific outcomes. The SDB receives an equity investment from a National Development Fund as part of government expenditure on the target sector. This investment is bound by a performance contract where discounts on dividends are tied to the delivery of developmental outcomes. On the other hand, the SDBs benefit from a special loan and asset purchase programs from the central bank to balance their risk-return profile. In addition, such institutions would present a suitable use case for CBDC issuance. The currency can be specially issued for the capitalization of the National Development Fund providing extra transparency and tractability for the allocation of funding to the desired sectors. By virtue of competition and outcome-based certification, moral hazard is minimized. Given the strong backing from the government and the central bank, the SDBs can raise funding from private investors seeking specialized sector exposure. These banks can be either full-fledged new institutions or windows within existing financial institutions.

## The Stylized Financial Structure

| ASSETS                 | LIABILITIES                         |
|------------------------|-------------------------------------|
| Sector Asset Portfolio | Safe Deposits                       |
| Equity Participations  | Shareholders' Equity                |
| CBDCs                  | National Development<br>Fund Equity |
|                        | Sector Securities                   |

The IsDB invites member countries and the financial sector to work together to explore the possible financial landscape of the future and better prepare for the competitive forces of tomorrow as described in the first and second sections.

In this first report, the IsDB identifies three likely major institutional transformations, driven by the mega trends of technology advancement, environmental and social pressures as well as the likely need for substantial economic stimulus to build back better after the pandemic. These three transformations are set to define the future of financial institutions.

## SPECIALIZED DEVELOPMENT BANKS: CREATE A MARKET FOR DEVELOPMENT FINANCE

## The Objective

Driven by the need to align the allocation of private capital with national development priorities to turn around the last decade of low growth and to counter the economic effects of the pandemic, the IsDB invites member countries to explore the possibility of establishing specialized development financial institutions following a narrowfocused development banking model.

The proposed model leverages on the possibilities of CBDCs to create a blue ocean opportunity for private actors to participate more actively in the financing of the national development plan.

Specialized Development Banks (SDBs) will also play an important role in deepening local capital markets by creating a new class of investable securities with an attractive riskreturn profile in addition to developmental impact.



#### Figure 40: the financial structure of an SDB

## **The Action Plan**

IsDB plans to engage a stakeholder consultation on the model and seek partnerships from Member Countries interested to pilot the model. IsDB will present the findings and conclusions of the stakeholders and submit a detailed policy recommendation on the proposal to the IsDB Governors for consideration. Following the guidance of IsDB Governors, IsDB will pursue piloting the implementation of the recommendations in selected Member Countries.

#### Figure 41: Proposed implementation road map



- Governments: Ministry of Finance, Ministry of Planning
   / Economy.
- Regulators: Central Bank
- Academia: Universities, Think Tanks

- Private Sector: Commercial Banks, Institutional Investors
- Technology Partners: Digital Currency Experts.

# SOCIAL DEVELOPMENT BANK: CREATE A MARKET FOR SOCIAL OUTCOMES

## The Objective

Like the SBDs above, Social Development Banks are privately managed for-profit institutions that specialize in financing social enterprises and vulnerable target populations. The Social Development Bank model is based on private competition for a limited number of licenses that are regulated by the government. These licenses provide some benefits to the certified institutions and are subject to an outcome-based contract between the government and the institution.

The Social Development Banks will have the mandate to receive and utilize philanthropic and Zakat contributions from companies and individuals. The competition from the supply and demand sides will mean that philanthropic capital would be allocated to the institution that exhibits the best track record in terms of management and impact.

Social Development Banks will be the principal means to implement "direct" quantitative easing measures. In addition, the certified institutions would also benefit from a special arrangement with the central bank and the National Development Fund.

Solidarity Cryptocurrency and other digital currency innovations would be central to the business model of Social Development Banks. As the institutions are judged on the outcomes, they have the necessary freedom to innovate in terms of resource mobilization and product offering.



#### Figure 42: the financial structure of an SDB

## The Stylized Financial Structure

| ASSETS                    | LIABILITIES                         |
|---------------------------|-------------------------------------|
| Sector Asset Portfolio    | Safe Deposits                       |
| Equity Participations     | Shareholders' Equity                |
| Solidarity Cryptocurrency | National Development<br>Fund Equity |
| Islamic Social Assets     | Social Investment<br>Securities     |

### **The Action Plan**

The IsDB plans to engage a stakeholder consultation on the model and seek partnerships from member countries interested to pilot the model. It will present the findings and conclusions of the stakeholders and submit a detailed policy recommendation on the proposal to the IsDB Governors for consideration.

Following the guidance of IsDB Governors, the IsDB will pursue piloting the implementation of the recommendations in selected member countries.

#### Figure 43: Proposed implementation road map

Establish SDB Working Group

Develop SDB Report and Feasability Study Pilot SDB Model

Source: IsDB

- Governments: Ministry of Finance, Ministry of Social Affairs, Ministry of Awqaf, Central Bank.
- Academia: Universities, Think Tanks
- Private Sector: MFIs
- Social Sector: Foundations, NGOs
- Technology Partners: Digital Currency Experts.

#### **ISLAMIC COMMERCIAL MERCHANT BANK**

## The Objective

There is an opportunity in the emerging AI and Blockchain technologies to remove some of the barriers preventing participative banking. Indeed, low-cost, high-efficiency tools are now available or could be developed to considerably lower information asymmetry and lower transaction costs from debt and non-debt-based transactions alike. The IsDB invites the financial community to explore a new Merchant Banking model that crystalizes the trends discussed above and presents a new opportunity for Islamic Finance to implement non-debt-based financial intermediation.

The new merchant banks are agile and operate like a Fintech with more efficient decision making, based on Al and broader access to data and information. These new merchant banks will have to be more competitive and cost-efficient, offering "end-to-end" credit journey for their customers. This will be enabled by open banking, Big Data and outsourced services such as AWS for Banking that offer AI and analytics for loan automation, risk management service and customer experience that will reduce barriers to entry to new financial start-ups in the market. With AI and data access, banks will be agile and will focus on offering the differentiated products to customers in a timely and cost-efficient manner. These agile banks offer direct banking and use multiple channels for distribution and multiple points of access. With digitization based on personalized customer experience, open data access, automation, Big Data, competition and direct multiple distribution channels come a real prospect for more inclusion and personalization. If Islamic merchant banks embrace the full potential of digitization and the new banking business model, there is a massive potential for Islamic banks to have a larger market share and improve financial inclusion in member countries.<sup>113</sup>

## The Action Plan

The IsDB plans to engage a stakeholder consultation on the model and seek partnerships from member countries' private sector to pilot the model. It will present the findings and conclusions of the stakeholders and submit a detailed policy recommendation on the proposal to the IsDB Governors for consideration. The range of issues that need to be addressed now include:

- Assess the readiness of Banks in MCs to fully embrace digitization and the "Merchant" bank model proposed here;
- Allow MCs to evaluate the regulations and laws that allow open banking and ensure strong data governance and data protection, cybersecurity and bolster the institutional framework to facilitate digitization;
- Invest in the systems and infrastructure that are the enablers for the modern banking system to thrive;
- Explore how to enable more competition and promote innovation by Fintech and start-ups of the kind of the new digital merchant banks envisioned here.

- Governments: Ministry of Finance
- Regulators: Central Bank
- Private Sector: Commercial Banks, Institutional Investors, Fintech, technology companies, industry representatives

## **3.3 ROADMAP TO REALIZE THE FINANCE INDUSTRY'S POTENTIAL** Long-Term Target: Full Reserve Banking



## The Objective

A natural extension of the CBDC in the longer run is to converge to a system where all money is CBDC. In such a system, the only money in circulation is the "sovereign" money in which case banks will not be in a position to create deposit money anymore. In this system, which is tantamount to full reserve system, banks will become intermediary of the sovereign money. Furthermore, money creation will not depend on debt creation, thereby breaking the link between money as means of payment and credit. The CB will be able to have full control of the money supply and will be able to inject additional money through a number of ways

- Extending credit to the national development fund at a preferential rate, a proposal under the so-called people's QE in the UK, where the Bank of England would lend directly to a National Development Bank to invest in a large infrastructure program;<sup>114</sup>
- Use the created money to reduce government debt, taxes or finance government expenditure;
- Providing liquidity facility for banks which finance long-term investment through a combination of investment accounts and wholesale funding markets (i.e. Sukuk market);
- Quantitative easing and large-scale asset purchase in secondary markets;
- CB can lend directly to commercial banks for the purpose of lending to businesses.

Some of the advantages of such a system include a reduction of debt in the economy, better control of the money supply, more effective monetary policy, more stable monetary system – not prone to bubble fueling, exuberant supply of credit and catastrophic money destroying credit crunches – and finally the fact that the income derived from money creation will accrue entirely to the state.

Some of the criticism leveled at the widespread use of CBDC and in the limit the preeminence of CBDC is the fear from disintermediation, rising cost of borrowing, mushrooming CB balance sheet resulting in it taking significant amount of credit risk and political interference.<sup>115</sup> These issues have to be resolved before such a system can be put in place, especially by ensuring strong governance, CB independence and making sure that decisions on optimal money supply are made independently from other considerations. During the transition to such model, CBDC will be complemented by existing payment methods such as cash, e-money and bank deposits to meet the needs of various segments of the economy.

## **The Action Plan**

Engage central banks, finance ministries and academics in member countries to understand the design of a "sovereign" monetary system and gradually develop the monetary policy tools to fully implement the new system by the widespread and then dominant of CBDC, developing the tools for managing money supply through the different channels listed above and developing the institutional and governance prerequisite to minimize the risk of political capture of the central bank for example. For example, the monetary policy rule and money supply need to be decided by an independent organ, while clear market-oriented evidence-based policies should govern how money is injected in the economy

- Governments: Ministry of Finance, Central Bank
- Regulators: AAOFI, CIBAFI
- International Organizations: IMF
- Academia: Universities

## IsDB invites member countries to work together for a future of welfare

Conducting research and planning with governments to improve their financial system for a promising economy

30

10

0

Product 1

pro

1275-3276-

51%

18%

31%

## CONCLUSION

• he current economic system designed to maximize materialistic indicators and a financial system that conversely concentrate on maximizing dematerialized profit, has created real externalities that have forced to revise global agendas. The financial system has a crosscutting role in driving the economy from supply to demand, from private sector to public sector, from commodities to services. Its architecture and rules can influence not only how capital is allocated and wealth distributed in the economy but can redefine socioenvironmental dynamic. A financial system backed by a new technological framework have the capacity to not only revive the economic machine to address market failure but moreover synergize social interaction, safeguard natural resources, account for impact and rebuild trust. But to achieve this, the financial system as we know it must reinvent itself.

The Islamic Development bank has championed Islamic Finance as a core mission. Since the early days of its existence, it has been busy laying the foundations of an Islamic financial system, creating markets for Islamic products, developing its regulatory and policy and enabling the establishment of Islamic financial institutions throughout its membership. Today, Islamic Finance has firmly established itself in the global financial lexicon. Since first issued in 1990, the total Sukuk issuance stood above \$1.35 trillion in 2020, more than half of which were issued in the last five years. In the first nine months of last year, Sukuk issuance surpassed \$130 billion.<sup>116</sup> Similarly, global Islamic financial assets reached \$2.87 trillion and are projected to reach \$3.7 trillion compared to \$1.76 trillion in 2012. Islamic banking assets accounted for almost 70% of total Islamic financial assets in 2019

The Islamic Finance industry is uniquely placed to solve some the challenges facing our member countries.

The world is changing very rapidly, with many conflating trends being witnessed, which means that we may have very choppy waters ahead. Climate change, demographic trends, rising debt levels, inequality, a pandemic and mass disruptions by new and evolving technologies are all forces we have to contend with. But it is our collective choice to either seize the opportunities these trends have thrown at us or carry on with business as usual sleepwalking into ever greater crises and catastrophes. As an example of these choices, take climate change. The world has sobered up to the massive risk climate change poses to our planet, though it is our choice whether we want to dither and delay or set out on massive Green Development Plans, capable of generating the jobs and skills of the future and raising our living standards in the broadest sense. Unfortunately, the Jury is still out.

As a market creator, the IsDB can lead the way in bringing the Islamic Finance industry into the new industrial age. The ethical underpinnings of Islamic Finance have to become more prominent, and all relevant parties should be in tune with what development really means, and to go beyond GDP number, shareholder value and pure financial returns regardless of how they come to be. Finance should create value, induce productivity and improve welfare, and it must be non-usurious, fair, and inclusive.

Through this report, the IsDB calls on it member countries to join this ambitious project to redesgin the Islamic financial industries at all levels and champion early adoption of new technologies, and new business models to leveraging on the momentum created by the challenges and trends identified and the opportunities offered by the platform of IsDB with its Member Country to combat climate change through green and social finance to achieve our collective ambitions

## ANNEX 1: MONEY FOR SOCIAL CAPITAL LEVERAGE: COMPLEMENTARY CURRENCIES

iterature on fiat money drawbacks are abundant. Accused to be inflationary, privately produced from a simple accounting record, thriving through credit expansion by profit maximization commercial banks and fosters speculative bubbles and capital misallocation, which culminate in crises. Of course, money is not the source of all those problems but certainly an aggravating factor.

Advocated by a growing community through different initiatives, a 'free market of money' concept is taking hold leveraging on all the crisis momentum and technological breakthrough.<sup>117</sup>

The complementary currency model has enabled this market to grow and prove its claims. Complementary Currencies (CC) are a medium of exchange that run in

#### **Box 6: Complementary Currency Initiatives**

parallel to national currency by supplementing it. Usually not legal tender, they are based on mutual agreement between the parties exchanging the currency. CCs aim can be to:

- resocialization and emancipation
- countering economic downturns (national currency scarcity)
- increasing financial stability
- reducing carbon emissions, by encouraging localization of trade and relationships
- · encouraging use of underused resources
- recognizing the informal economy
- promoting local businesses
- increasing financial inclusion

Although the complementary currency concept has been used since 1907, there have been more than 70 complementary currencies launch in the last 10 year in France alone.

The Eusko that covers the Basque Country region in France, capitalized 1.2 million of its currency in circulation through 2,700 users. The legal framework in place enabled the development of this market of currency through a complete 'Practical guide for complementary currencies destined to citizens usage'. https://www.financite.be/sites/default/files/guide\_pratique\_des\_monnaies\_complementaires\_0.pdf

CCs are always used to advance particular social and environmental goals. From an economic perspective, the CCs can increase the velocity of money in a particular region prompted by a different introduction mean and money supply dynamic. There are specificities that the CBs need to consider before enabling the issuance of CCs in a given region such as taxes, possible convertibility into national currency, rate of convertibility, regional scope, economic activity and volume that will influence the impact the CCs. There is no conflicting purpose between the Sovereign Money model and the CC model, in fact their advantages are cumulative. Cryptocurrencies are alternative currencies, but they generally are not considered complementary currencies unless there is some social aim explicitly being fulfilled through their creation.

Through their institutional framework and policy enabling environment, CB monetary policy aims to leverage all the economic potential. As mentioned above, unemployment and underemployment are an ever-increasing resource that could be leveraged for economic and social purposes. (Some 30% to 45% of the working-age population around the world is underutilized—that is, unemployed, inactive, or underemployed<sup>118</sup>).

The gig economy, although more than ever creating precarious jobs, has developed a new business model through platforms to leverage untapped human potential. This model could be leveraged by government to create a social gig economy for sustainable self-employment.

The population holding a wealth below the nissab<sup>119</sup> reference and the unemployed population are great resources that can and sometimes are contributing to the socioeconomic progress but more than ever failed to be captured and fully used. CCs can become the tool to leverage the social capital of the economy around a Contributive Economy. The Contributive Economy is a comprehensive framework that catalyzes the already existing Sharing Economy and Circular Economy. The framework will have different channels to incentivize and reach the potential human resources to contribute through the CC or the Solidarity currency. The enabling environment of the Contributive Economy is a:

- Social Bank licensed by the CB to undertake specialized social activity and support all the program channels eligible for the population from which the wealth falls below the nissab.
- Technological platform developed by private sector technology companies to create and operationalize an interactive and attractive applications tools, to advertise the programs and monitor all interaction and transactions.

# 1st Program Channel – The Call for Contribution Platform (CfC):

The CfC Platform aims to leverage on the current crowd funding platform and non-profit organization. The platform will enable the Government to advertise social programs (education support, environment cleaning, food distribution, etc.) from eligible non-profit organizations. The platform will advertise volunteer positions to support the social program. The unemployed and below nissab population will receive priority to volunteer to the program and will be rewarded in Solidarity currency based on their contribution. The non-profit organization will receive its admin cost on an outcome basis subsidized by the Government in national currency.

#### 2nd Program Channel - the Sadaqa Platform:

The Sadaqa Platform aims to support population in financial distress. After validation by non-profit organization through Governmental record, financial aid support opportunity will be advertised in the platform (debt relief, social housing, food, education, health etc.). The fund will be mobilized from the public through the platform in national currency and exchanged into Solidarity currency. The CB will determine a Sadaqa exchange rate that will increase the total amount mobilized and enable it to meet its CC money supply target. This will incentivize people's donations and promote solidarity in society.

#### 3rd Program Channel – The Entrepreneurship Platform:

An entrepreneurship fund will be allocated by the CB in national currency. A microfinance type of project will be advertised by the eligible population to seek financing denominated in Solidarity currency on a Musharaka mode of finance (with profit sharing and no defined maturity). The Social Bank will be in charge to undertake the project monitoring and will be rewarded on an outcome basis (number of successful projects and people above the nissab). All the profit will be converted in national currency and allocated to the entrepreneurship fund risk management and financing envelopment.

The eligible population would need to create an account at the Social Bank thus increasing financial inclusion. The Social currency will be accepted in Governmental facilities and will cover a predefined basic basket need.

## **ANNEX 2: PROPOSAL FOR WELFARE-ADJUSTED TAYLOR RULE**

We present in this annex the outline of an alternative welfare-adjusted Taylor rule as discussed in the report. Consider a multidimensional welfare indicator  $\overrightarrow{I}(I_1, \ldots I_n)$ . This vector represents global targets such as the SDGs. Consider a response matrix RM representing the national definition of the intensity of desirable positive and negative changes in the above welfare indicator.

$$RM(\overrightarrow{I}) = \begin{pmatrix} \frac{\partial I_1}{\partial +} & \frac{\partial I_n}{\partial +} \\ \frac{\partial I_1}{\partial -} & \frac{\partial I_n}{\partial -} \end{pmatrix}$$

Consider the aggregate output as the sum of adequately granular components which will represent the units of calculation.

$$Y = \sum_{i} \Delta Y_{i}$$

Given the contribution of each unit to the variation of the welfare indicator one can derive the following mapping.

$$\Delta Y_j \rightarrow \begin{pmatrix} \frac{\Delta I_1}{\Delta Y_j} \\ \dots \\ \frac{\Delta I_n}{\Delta Y_j} \end{pmatrix} \middle| \Delta Y_j \Bigr|$$

Applying the response matrix to this variation leads to

$$\Delta Y_j \rightarrow \begin{pmatrix} \frac{\Delta I_1}{\Delta Y_j} \\ \dots \\ \frac{\Delta I_n}{\Delta Y_j} \end{pmatrix} \begin{pmatrix} \frac{\partial I_1}{\partial +} & \frac{\partial I_n}{\partial +} \\ \frac{\partial I_1}{\partial -} & \frac{\partial I_n}{\partial -} \end{pmatrix} \mid \Delta Y_j \mid = (\Delta Y_j^+, \Delta Y_j^-)$$

And as a result, each unit of output is now mapped into positive and negative welfare components. Aggregating all outputs, we have

$$Y \rightarrow \left(\sum_{j} \Delta Y_{j}^{+}, \sum_{j} \Delta Y_{j}^{-}\right) = (Y^{+}, Y^{-})$$

The following modified Taylor rule responds in a manner adjustable to the composition of GDP.

$$i = \pi + \bar{r} + a_{\pi}(\pi - \bar{\pi}) + a_{y^{+}}^{+} \left( y^{+} - \bar{y^{+}} \right)_{+} + a_{\bar{y^{+}}}^{-} \left( y^{+} - \bar{y^{+}} \right)_{-} + a_{y^{-}}^{+} \left( y^{-} - \bar{y^{-}} \right)_{+} + a_{\bar{y^{-}}}^{-} \left( y^{-} - \bar{y^{-}} \right)_{-}$$

#### BANKING SECTOR'S RESPONSE TO THE WELFARE-ADJUSTED TAYLOR RULE

To illustrate the dynamics of the proposed simple model, we consider an economy composed of two technologies, one generates positive externalities and the other generates negative ones.

Current allocation to the positive technology is at 10% while it is socially optimal to allocate 70% of total investments. In the absence of welfare-adjusted monetary policy, banks do not have any incentive to modify their allocation.

#### Figure 44: Stylized effect of dual output gap metric on monetary policy and bank behavior



However, if Central Banks announce the adoption of the welfare-adjusted Taylor rule on the lines of the one proposed, the banks' optimal response is to increase allocation to the positive technology.

#### Figure 45: Stylized effect of dual output gap metric on monetary policy and bank behavior



The welfare-adjusted Taylor rule plays the dual role of inflation targeting and positive externalities maximization.

# ANNEX 3: FINANCING NEEDS OF THE REAL ECONOMY IN ISDB COUNTRIES

hrough the analysis of most promising markets for our member countries, we can single out some important sectors and industries. These are broadly the most competitive industries and thus are likely to create opportunities for vertical integration, productivity increase and domestic value addition. Thus, these industries can be considered the starting points (i.e. the 20% that can potentially produce 80% of the impact) though not an exhaustive list of industries. Building on the comparative advantage of member countries and factor endowments, countries can gain by focusing on these sectors. The main factors that went into selecting these industries were:

- 1. potential for high value and job creation
- 2. high potential for vertical and horizontal integration and expansion into "neighboring" industries
- 3. High spillover effects on other sectors of the economy as well as creating new learning dynamics

# FINANCING NEEDS OF THE AGRICULTURE INDUSTRY

With a total production of \$5 trillion in 2018, the agriculture industry contributed only 6.4% to the world's economic production.<sup>120</sup> There is an ever-increasing need for investing in the agriculture industry.

#### INVESTMENT NEEDS OF AGRICULTURE

To ensure a 70% increase in food production, the World Bank estimates that an annual investment of **\$80 billion will be needed to meet the increasing food demand.** Agriculture financing will prove to be an important asset in eradicating poverty and improving the prosperity of these households. With an estimated 70% of the world's food being produced by small farms (with 25 acres or less), they face a number of obstacles to sustain their livelihood.<sup>121</sup> Small farmers lack access to inputs (seeds, technologies, and fertilizers), access to finance, face gender inequality, and lack access to markets and storage. Farmers face significant barriers to acquiring finance, especially in developing countries. They lack collaterals, which can be offered as guarantee to secure bank loans. The growth of agriculture finance markets is constrained by ineffective policies, high transactions costs to reach the rural population, absence of instruments to manage risk, and lack of expertise of financial institutions to manage agriculture loan portfolios.

#### AGRICULTURE FINANCING IN AFRICA

The African food market is expected to reach \$1 trillion by 2030.<sup>122</sup> In an effort to make Africa a net food exporter and move the continent to the top of export-oriented value chains, the African Development Bank introduced 'Feed Africa Strategy' in 2015 and over a period of ten years (till 2025) will invest \$25 billion toward the continent's agricultural activities with a focus on adopting technology and sustainable farming.

# FINANCING MECHANISM AND SOURCES OF FINANCE

The majority of financing needs for the agriculture sector will have to come from the private sector.<sup>123</sup> Enhancing investment in sustainable agricultural practices, through a combination of public and private investment will provide for better incentives for farmers. Cross-border investments can boost global food production by leading the adoption of new technologies and ideas. In addition, foreign investments can increase exports and trade flows, transfer of skills, and improve employment, particularly in emerging markets. The fact that Africa is expected to be one of the fastest growing economies over the next decade is attracting private investors to tap into its agriculture value chain.

In addition, local governments will need to conduct diagnostic studies on the state of agricultural finance and produce action plans to reform public policies and regulations and create an enabling environment to mobilize agricultural finance. Policies and regulatory intervention areas can include lending quotas, interest rate caps, and warehouse receipt financing frameworks. Setting up a warehouse receipt financing methodology in developing countries allows producers to use the receipt as a loan guarantee while also providing access to storage facilities thereby maximizing their profits.<sup>124, 125</sup>

To fund the future financing needs of the agriculture industry and address the challenge of insufficient financing for SMEs in emerging regions, approaches such as **blended finance initiatives with private players, crowdfunding of investments, and policy actions to allow agricultural businesses to thrive** will be taken. In addition to receiving adequate funding, the growth in agricultural industry can be achieved by leveraging technology to drive innovations, bolster research and development to establish research hubs and networks and incentivize agricultural and natural resource management practices.

# FINANCING NEEDS OF THE PETROCHEMICALS INDUSTRY

The global petrochemicals market size is estimated to reach \$958.8 billion by 2025, expanding at a CAGR of 8.5% (2019-2025). The growth in demand for petrochemical products like plastic packaging, fertilizers, synthetic rubber, and laundry detergents will lead to petrochemicals

accounting for over a third of the growth in oil demand by 2030 and nearly half by 2050. However, with refiners moving to petrochemicals, they run the risk of reducing the profitability of the sector. Current chemical firms will have to change their approach and deliver more specialized products to dominate the commodity markets.

In the last few years, the industry has been facing challenges related to heightened scrutiny and regulations from the industry's environmental hazards. Banks were forced to tighten lending controls to manage risk efficiently. As a workaround, petrochemical companies have started to access alternative sources of finance, such as the bond market, private equity, and export credit agencies.

# FINANCING MECHANISMS AND SOURCES OF FINANCE

In addition to traditional sources of capital, more creative financing techniques and new sources of finance will help to ensure that sufficient and efficient funding is available to finance projects in the future. Compared to other infrastructure sectors, project finance is less used in the petrochemicals sector. With project financing, banks will be the primary source of financing. Capital in project finance mechanisms is often structured to incentivize refinancing after the construction of the project. It also attracts infrastructure funds, pension funds, and other institutional investors looking to invest in petrochemical infrastructure.

Africa is struggling to expand its petrochemical industry, as the continent is unable to access long-term funding, finding flexible refinancing options, and mitigating currency risk. Governments and private sectors are also grappling with an infrastructure financing deficit of \$130 billion – \$170 billion. The biggest challenges for Africa's petrochemical project developers include obtaining access

# ANNEX 3: FINANCING NEEDS OF THE REAL ECONOMY IN ISDB COUNTRIES

to long-term funding, mitigating currency risk, achieving lowcost borrowing, and finding flexible refinancing options. One solution that might work for petrochemical projects that lack funding is that initial stages of the project may be funded through a combination of grant funding or DFIs and then look for commercial lenders to refinance the project once it has a track record of growth and reliable payment history.<sup>126</sup>

#### FINANCING NEEDS OF THE MINING INDUSTRY

To meet the goals of the Paris Climate Agreement, a global transition toward low-carbon technologies is imminent to combat climate change. The shift to renewable energy technologies is expected to positively drive the demand for minerals, both base and rare earth. This is mainly due to technologies, like wind, solar, and batteries requiring large amounts of minerals.

# FINANCING MECHANISMS AND SOURCES OF FINANCE

Financing in the mining industry was usually achieved through traditional forms of finance, like equity and debt financing. However, with metal prices weakening during 2011-2016, mining companies incurred large losses and since their recovery in 2017, have **started moving towards alternative funding including private equity, royalty** (production-based financing), and stream financing. These financing mechanisms are expected to continue to grow in the capital-intensive mining industry, where companies are continually attempting to limit their risks and improve their balance sheets.

As mining exploration activities are driven to remote areas, conventional sources of finance, like institutional investors or commercial banks are usually averse to investing in such exploration activities, which are expensive and risky. Private equity and venture capitalists provide the required capital for early stage companies. Royalty agreements, where the issuer provides capital in exchange for a share in the project's future revenue, might attract investors to be a part of the project financing. Such agreements usually do not include any penalties for construction or project delays and will attract early stage companies to this type of funding.

The mining and metals industry has been slow in adopting technological innovations when compared to other industries. Yet, Blockchain-based digital finance is on the rise in the industry. While cryptocurrencies and crypto tokens have gained traction mostly in developed countries like Canada and Australia, it can be a gamechanger in mining finance for the financing requirements of developing countries in the Middle East and Africa. Tokenized financing is based on the intrinsic value of a mineral deposit or its production. This differentiates such tokens from cryptocurrencies, such as Bitcoin and Ethereum, which are not backed by any kind of physical security. The tokens are distributed via an initial token or coin offering using Blockchain technology, which can then be listed on thirdparty exchanges to facilitate trading and liquidity. While this avenue of financing is lucrative to companies looking for fund, lesser to no regulations on Blockchain-based financing makes the instrument slightly risky. Perhaps, standardizing token-based payments and accepting it widely will make it easier for raising growth capital.

#### MINING IN MIDDLE EAST AND AFRICA REGION

Countries in the Middle East and Africa are increasing their investments in mining. The UAE's Emirates Global Aluminium announced that it has secured funding of \$750 million from First Abu Dhabi Bank, Emirates NBD, and Mashreq Bank. This fund is toward its bauxite mining efforts in Guinea. In an attempt to overhaul its oil-dependent economy, Saudi Arabia has expanded its \$28 billion fund. Among other sectors like logistics, the fund will support the country's mining industry through a variety of financial products. Additionally, the Africa Finance Corporation has plans to expand its investment to over \$500 million in the mining sector across the African continent. It has set aside a \$78 million financing package for Segilola Gold Project in Nigeria. The financing solution will include a credit facility, a gold stream, and common equity.

# FINANCING NEEDS OF THE CONSTRUCTION INDUSTRY

Globally, the volume of construction output is expected to grow by 85% to \$15.5 trillion by 2030. Three countries, China, the US, and India are expected to drive this growth and will account for 57% of the total growth.<sup>127</sup> Construction in Indonesia is expected to grow and overtake Japan by 2030. Despite these growth projections, annual investments of \$1 trillion are needed to close the global infrastructure gap.<sup>128</sup>

## FINANCING MECHANISM AND SOURCES OF FINANCE

Finding financing has always been a challenge for construction subcontractors. Most banks and financial institutions are not comfortable with the industry and only finance large companies.

Future financing needs of the infrastructure industry will be fueled primarily by private investments. Among alternative lending mechanisms that will be widespread in the construction industry are revenue-based financing, peerto-peer lending, and equity crowdfunding. Revenue-based financing is not a loan, but an agreement to sell a portion of the future revenue. Peer-to-peer lending provides good opportunity for businesses to get loans faster and with fewer restrictions.

#### FINANCING SMALLER COMPANIES

To fund the operations and growth of smaller constructions, ways such as Small Business Administration (SBA), and construction factor financing are gaining popularity – more so in developed countries. SBAs guarantee loans for banks which allows them to lend to small businesses. It is a very effective way of providing micro-loans. The SBA loan officers also offer business management and financial advice, which are extremely useful for small businesses seeking loans. The other mechanism is construction factoring where a company struggling with weak working capital is helped by a factoring company to progress payments and provide an advance.

#### FINANCING NEEDS OF THE TEXTILES INDUSTRY

The global textile industry was valued at \$920 billion in 2018 and is projected to grow to \$1,230 billion by 2024. The increasing consumption of clean fibers such as cotton, silk, wool, hemp, and jute are expected to drive the projected growth. Asia Pacific is leading the market, followed by North America, Europe, South America, and the Middle East and Africa.

# FINANCING MECHANISM AND SOURCES OF FINANCE

Like other industries, the textile industry also has a lot of challenges in securing financing. While textile manufactures would prefer a bank term loan or line of credit, the issue is

# ANNEX 3: FINANCING NEEDS OF THE REAL ECONOMY IN ISDB COUNTRIES

often being able to secure conventional financing. The next best option for a textile company to seek for a bank loan is through the SBA enhancement. The SBA uses the guarantee to cover a large portion of the lender's losses should the textile company default on its loan. Alternative loans are the mid-point between bank loans and high-interest cash advances. Alternative business loans for textile companies are used for funding working capital and refinancing higher interest debt, among others. Other financing mechanisms, including asset-based financing, can come in the form of loans or lines of credit. If a textile manufacturing company has tried all mechanisms but has not been able to secure financing, the cash advance option helps it secure a loan against future sales.

# FINANCING NEEDS OF THE CROSS-CUTTING SERVICES

Cross-cutting issues such as gender equality, poverty alleviation and environmental sustainability are pertinent to all facets of development. From 2017-2019, governments and international institutions have announced more than \$1 billion in new commitments to support gender equality globally. These investments include a \$500 million multiyear joint enterprise between the United Nations and the European Union - the Spotlight Initiative - focused on eliminating all forms of violence against women and girls; a \$133 million investment by France for its feminist foreign policy; \$127 million investment by Norway to end sexual and gender-based violence in conflicts; \$376 million by Canada. However, only 1% of all gender-focused aid went to women's organizations. The bulk of this money went to international organizations based in donor countries, rather than the groups leading the effort.

By 2015, the proportion of the world's population living in extreme poverty had dropped from 50% in 1990 to 14%, according to the Millennium Development Goals monitor. However, considering the population increase, the absolute number of people living in poverty has increased. Microlending programs - the practice of giving small loans to the very poor, alongside other financial services such as savings accounts and financial training - in the developing world can lift more than 10 million people out of extreme poverty. Active commitments to financial inclusion increased from \$11 billion in 2007 to \$42 billion in 2017, most of which is led by DFIs. Banking the unbanked (financial inclusion) has been identified as an enabler for seven of the 17 SDGs. Also, the World Bank Group considers financial inclusion a key enabler to reduce extreme poverty and boost shared prosperity and has put forward a goal to reach Universal Financial Access by 2020.

#### ENVIRONMENT PROTECTION INVESTMENT

Environmental sustainability has never been a more central topic in world's history as it is now. Businesses today face significant environmental and social challenges that pose risks to their potential to sustain growth. This shift in market dynamics is tilting the investments towards the greener side. In the first nine months of 2019, investors allocated a record \$89 billion to green and sustainability linked loans. On December 11, 2019, the European Commission presented the European Green Deal, a growth strategy aiming to make Europe the first climate-neutral continent by 2050. As part of this deal, the European Green Deal Investment Plan, which will mobilize at least \$1 trillion of sustainable investments over the next decade. It is expected to enable a framework to facilitate public and private investments needed for the

transition to a climate-neutral, green, competitive, and inclusive economy. A recent report from Refinitiv – A Deep Dive into Environmental Metrics – found that 63% of companies within Refinitiv's ESG database, which covers approximately 70% of the world's market cap, have a policy to reduce emissions.

#### INVESTMENTS FOR THE EDUCATION SECTOR

The importance of education for developing not only a sustainable society, but a more holistic one as well, is ages old. However, access to education, remains a privilege. For example, girls living in areas of conflict are 90% more likely to be out of secondary school. Governments and institutions are taking various initiatives across the world to help achieve one of the SDGs published by the UN - provide free, equitable and quality primary and secondary education. To end 'learning poverty' the World Bank is placing a distinct focus on basic literacy by age 10. UNESCO launched the 'Futures of Education' initiative to look beyond the 2030 agenda for sustainable development and 'reimagine how education and knowledge can contribute to the global common good.' The initiative will see an array of stakeholders fostering a global debate on how education can shape the future. UK PM Boris Johnson announced a £515 million investment for global education. The funding will particularly focus on improving basic literacy and numeracy and getting children in conflict zone to schools. Out of this investment, £100 million will also go towards the International Finance Facility for Education (IFFEd), which leverages grants from donors to increase lending by multilateral banks. The Netherlands has also joined the UK in pledging support to the IFFEd.

Achieving national education goals will require additional financial commitments over the coming years. However, funds may not be reaching schools, spending decisions may not be aligned with learning objectives, and government agencies may lack the capacity to use funds efficiently.

It is therefore important to ensure that these resources are used effectively by reducing spending inefficiencies common in many education systems.

#### **INVESTMENTS FOR HEALTHCARE**

The latest report published in September 2019 by the WHO and partners says that countries must increase spending on primary healthcare by at least 1% of their GDP to close the gaps and meet health targets agreed in 2015. Countries should also intensify efforts to expand access to healthcare services. According to the Universal Health Coverage Monitoring Report, the world will need to double the health coverage between now and 2030. As per the report, if the current trends continue, up to 5 billion people will still be unable to access healthcare in 2030. Investing an additional \$200 billion a year on scaling up primary healthcare across low and middle-income countries would potentially save 60 million lives and increase average life expectancy by 3.7 years by 2030 while also contributing to socio-economic development.

Every country wants a healthcare system that offers good health outcomes, affordable services, and medical and financial equity. These objectives are hard to attain in low-income countries, where budget constraints are binding at low levels of overall expenditure. Health expenditures are largely self-sponsored, and since there is limited capacity to increase domestic public expenditures, donors are expected to finance most of the scale-up.

#### DEVELOPMENT OF AFFORDABLE HOUSING

Housing is a prerequisite for inclusive, equitable, safe, resilient, and sustainable cities. Indicators show that

# ANNEX 3: FINANCING NEEDS OF THE REAL ECONOMY IN ISDB COUNTRIES

housing is a driver, catalyst, and contributor for 13 of the 17 SDGs. Housing helps achieve five SDGs including no poverty, gender equality, clean water and sanitation, affordable and clean energy, and sustainable cities and communities. With 1.6 billion people living in inadequate housing, one billion of whom reside in slums and informal settlements, it is important to develop affordable homes. Addressing the poorest and most vulnerable housing needs, especially among women, youth, and those who live in slums, must be a priority in the development agendas.<sup>129</sup>

In 2014, Shelter Afrique said "African urban areas will need 565 million additional housing units between 2015 and 2030". Building 40 million modest homes in a year requires an investment of more than \$1 trillion, which has a multiplier effect of adding \$10 trillion to the continent's GDP. When considering ways to use vacant land and existing buildings, commercial real estate investors and brokers often overlook a viable alternative – government-sponsored affordable housing. Real estate investors should be aware of the opportunities to purchase underdeveloped land or debilitated buildings by tapping into affordable housing financing.

Policies and regulations such as Low-Income Housing Tax Credit provide a tax incentive to construct or rehabilitate affordable rental housing for low-income households. Low-income countries such as Kenya are considering introducing tax incentives for property developers to reduce the housing deficit.<sup>130</sup>



## ANNEX 4: RECONNECT MONEY TO THE REAL ECONOMY (FOR DISCUSSION)

#### **A NEW BRETTON WOODS MOMENT**

The financial architecture has greatly been shaped by the Bretton Woods Agreement that successfully brought about exemplary and stable economic performance in the 1950s and 1960s. Under the Bretton Woods Agreement, money supply was technically capped by the total gold supply held by Central Banks putting down pressure on the price of gold and upper pressure on gold production to sustain growing global trade. Motivated by inappropriate inflationary monetary policy to the key currency country of the system, the suspension of gold convertibility in 1971 eventually ended a key aspect of the system leaving the US Dollar as the world currency. Ever since, money supply has been monitored by Central Banks through the banking system, as an economic lever based on its effects on real economic activity and the price level. It resulted in a spike in aggregate world money supply driven by world trade expansion, underpinning an ever-growing financialization of world economy.

Since the global financial crisis, the monetary policies to monitor money supply has been challenged by empirical data and forced policy makers to undertake unconventional measures to sustain the financial sector. The pandemic economic crisis compounded with the stigmas of the global financial crisis has thrown the world GDP growth forecast to an abrupt halt, leaving the financial sector with little growth prospect from the real economy. According to Kristalina Georgieva, managing director of the International Monetary Fund, the pandemic has already cost an estimated 4.4% on world economy representing around \$11 trillion of output by next year, making the world face "a new Bretton Woods moment" that we must seize.<sup>131</sup>

#### **A BIASED MONEY CREATION PROCESS**

Under the current financial system, the money creation process is highly influenced by the bank's modus operandi. With more than 90% of money in the economy as bank deposit, two major theories help model the money flow and credit value chain: the intermediation theory that assumes that banks organize the interface between supply (depositors) and demand (investors) for money, and the fractional reserve theory that gives the money creation power to banks when they extend lending. In both theories, banks play an intermediation role where the money supply remains under the central bank prerogative through the required reserve lever. Neither theory passes the empirical test. The credit theory of money stipulates that money is issued as debt in the economy in which banks independently create money as a unit of account when it extends lending through the issuance of a promise to pay a cash flow in the future. Under this theory, the central bank insures the sufficient interbank liquidity ex nihilo (i.e. when the debt-based money is already created and circulating in the economy) put them in the fait accompli with the bank reserve requirement lever playing a marginal role in regulating the money supply.<sup>132</sup>

Monetary policies embed a distributive role of national wealth and thus can be used to influence wealth inequality. Under such money creation process, money supply monitoring is driven mainly by private sector agendas. To address our contemporary challenges, money needs to accrue to benefit the national common goals rather than private objectives.

# ANNEX 4: RECONNECT MONEY TO THE REAL ECONOMY (FOR DISCUSSION)

#### **MONEY AS A COMMONWEALTH OF NATIONS**

Based on historical precedent, it is arguable that privately controlled money creation has much more problematic consequences than government money creation. Under a full reserve banking model in which banks are exclusively intermediator, the government inherits the seigniorage to issue money directly at a zero interest rate rather than borrowing it in financial markets or having it created by banks through credit booms during economic expansion and destroyed during economic contractions. This will considerably decrease the debt burden of public and even private sector agents. Money will thus represent the national equity in the commonwealth.<sup>133</sup>

Private financial institutions will manage the money flow through an efficient payment system backed by technological solutions, facilitating the allocation of capital to its most productive uses and aggregate financial data over the economic activities. Banks will thus be in a position to identify early on potential market failure and oversee economic externalities to support policy making organization in addressing socioenvironmental challenges.

Money supply, at the hand of a public organization, will need to be monitored under a fixed money growth rule eliminating private debt funding (but not equity funding) of banks' residual lending business. The channels by which money is introduced in the economy will also need to be framed under policies that promote competition, fairness and inclusion.

## ANNEX 5: FINANCIAL INFRASTRUCTURE DEVELOPMENT IN FRAGILE CONTEXT – IRAQ USE CASE

#### STATEMENT BY H.E. THE GOVERNOR OF THE CENTRAL BANK OF IRAQ ON THE FUTURE OF FINANCE REPORT

The global economy witnessed major crises and challenges over the last two decades, namely the 2008 global financial crisis and the COVID-19 pandemic in 2020. The Iraqi economy was not directly affected to a significant extent by the 2008 global financial crisis, as the connection between the Iraqi financial sector and the global financial system was quite weak. The indirect effect at that time was caused by the drop in global prices of oil, which accounts for most of the revenue of the Iraqi public budget, due to structural distortions it has been suffering for four decades.

The Iraqi economy also faced a dual security and economic crisis in addition to rising public expenditure in the 2014-2017 period caused by actions taken to bring back stability combined with the drop in global oil prices and measures to address the waves of internal displacement. Towards overcoming that crisis, which led to an increase in public debt from 9 trillion Iraqi dinars in 2014 to IQD47 trillion, and as a result of the deteriorating financial depth, the Central Bank of Irag has adopted an expansionary monetary policy since 2015, which materialized primarily in treasury bond discounts by about IQD10 trillion and the launch of a private sector activity financing initiative amounting to IQD6 trillion, comprising IQD5 trillion to finance large and medium projects through specialized public banks and IQD1 trillion to finance small projects through private conventional and Islamic banks.

On the other hand, in response to the adverse effects of the COVID-19 pandemic, the Central Bank of Iraq launched a new IQD5 trillion initiative to finance private sector projects and engage the private sector as a strategic and important partner in economic development, create jobs and reduce poverty and unemployment. The financing is provided at minimal interest, and even zero-interest in some cases, such as housing sector loans that only entail a one-off 5% administrative fee.

Also, the Central Bank of Iraq is working on developing the infrastructure of the Iraqi payment system, promoting electronic payment systems and enhancing financial inclusion. Major projects undertaken in this regard include increasing salary domiciliation for public sector employees, participating in the Buna platform with several Arab countries, using the national switch, launching electronic tax collection for public service and education institutions and developing the financial inclusion strategy in cooperation with strategic partners such as the Arab Monetary Fund, Germany's GIZ, among others.

Moreover, the Central Bank of Irag is aware of the immense and numerous challenges associated with the transition from conventional to Fintech-based banking, as well as the important and numerous opportunities offered by the transition towards digital financial services. As such, the Central Bank of Iraq continuously keeps abreast with global developments and endeavors to implement international best practices in this regard, while remaining extremely cautious to avoid potential financial risks and ensure the stability and sustainability of the financial system. In this context, the Central Bank of Iraq worked on issuing digital onboarding controls and joining the Buna platform for intra-Arab payments to expand the scope of electronic payments. Buna is a platform that provides real-time clearing and settlement services for transborder financial transfers between Arab countries in Arab and international currencies







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