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UNIVERSITY OF
CAMBRIDGE
Judge Business School

FinTech Regulation in the MIDDLE EAST and NORTH AFRICA

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The growth of FinTech creates opportunities and challenges for regulators in emerging and developing economies. Financial authorities can direct the contribution of financial innovation towards a range of regulatory objectives, such as financial inclusion. In the Middle East and North Africa region, regulators have taken positive steps to create an enabling environment for FinTech through a combination of regulatory frameworks and regulatory innovation initiatives.

The FinTech Regulation in the Middle East and North Africa (MENA) study assesses how a range of FinTech activities are regulated in the region. This includes understanding which regulators have a mandate for specific FinTech verticals, and whether activities are regulated by existing or bespoke frameworks, as well as noting which regulators plan to introduce regulatory frameworks in the near term.

To undertake this task, the study draws data from the Global Covid FinTech Regulatory Rapid Assessment Study (CCAF and World Bank, 2020) as well as the 2nd Global Alternative Finance Market Benchmarking Report (CCAF, 2021), and complements it with direct surveys with a select number of sampled regulators. It further provides a review of regulatory frameworks, including the laws, directives and guidelines that relate to specific FinTech activities and regulatory innovation initiatives such as innovation offices, regulatory sandboxes, and the use of RegTech and/ or SupTech by the regulators themselves.

The CCAF remains grateful for the foundational funding provided by the UK Foreign, Commonwealth & Development Office (FCDO) through the Prosperity Fund Global Finance Programme to support this important research. We are further grateful to the regulators who contributed their time and knowledge to provide the evidence base for this study.

Robert Wardrop
Faculty (professor Level) in Management Practice
Director & Co-Founder of the Cambridge Centre for Alternative Finance (CCAF)

The UK is delighted to partner with the Cambridge Centre for Alternative Finance (CCAF) in sharing best practice on enabling regulatory environments for financial innovation in the Middle East and North Africa (MENA).

It is clear that Financial Technology (FinTech) can help the MENA region to overcome critical shortcomings in traditional banking models to increase the reach of financial services to underserved firms and people, thereby making a material difference to their participation in the economy. We therefore strongly welcome the sustained growth of innovation in delivering financial services and the efforts of policy makers to support this growth in the region. There is now at least one innovation office in twelve jurisdictions and eleven regulatory sandbox schemes. It is great to see regulators wanting to capitalise on the opportunities of Fintech and digital financial services.

The FinTech Regulation in the Middle East and North Africa report provides an excellent evidence-based summary of how regulators have responded to the emerging potential of financial innovation. It maps out regulatory initiatives in the region, as well as providing a brief look at important developments in Islamic finance and Fintech to afford individuals the opportunity to use financial services in a way that complies with their religious and ethical preferences – a goal that the UK as a leading Western centre for Islamic Finance strongly supports.

This research report aligns with UK efforts to build regional prosperity and increase economic resilience. The opportunities provided by these new technologies and the embedding of standards to secure their use will contribute to more robust financial systems in MENA. We welcome the openness across the region to build development and commercial partnerships in innovation and technology collaboration.

The report comes against the backdrop of the COVID-19 pandemic. Regulatory responses to the pandemic have varied, though it is notable that many regulators in MENA consider FinTech to be supportive of their priorities on market development, financial inclusion, competition, and adoption of digital financial services. However, some concerns remain, particularly regarding the increased risks to consumer protection.

I hope this report will bring greater awareness of the state of regulation of FinTech in MENA and inspire further work on financial innovation to promote inclusion and economic growth.

Moazzam Malik CMG
Director General Africa
Foreign, Commonwealth and Development Office

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Acronyms

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
ADGM	Abu Dhabi Global Market
AISPs	Account Information Service Providers
AML/CFT	Anti-Money Laundering/ Combatting the Financing of Terrorism
APAC	The Asia-Pacific
API	Application Programming Interface
CDD	Customer Due Diligence
COVID-19	Coronavirus Disease 2019
DFS	Digital Financial Services
DFSA	Dubai Financial Services Authority
DIFC	Dubai International Financial Centre
DMCC	Dubai Multi Commodities Centre
ECF	Equity Crowdfunding
FATF	Financial Action Task Force
FCP	Financial Consumer Protection
GCC	Gulf Cooperation Council
GDPR	General Data Protection Regulation
GFIN	Global Financial Innovation Network
GSIFI	Governance Standard for Islamic Financial Institutions
IFSB	Islamic Financial Services Board
IFWG	Inter-Governmental FinTech Working Group, South Africa
KSA	Kingdom of Saudi Arabia
KYC	Know Your Customer; electronic-KYC (e-KYC)
MoU	Memorandum of Understanding
MENA	Middle East and North Africa
MSMEs	Micro, Small and Medium Enterprises
P2P	Peer to Peer Lending
PISPs	Payment Initiation Service Providers
SSA	Sub-Saharan Africa
TPP	Third Party Provider
UAE	United Arab Emirates
UNSGSA	UN Secretary-General's Special Advocate for Inclusive Finance for Development

Glossary

Agent(s): a third party acting on behalf of a financial service provider to deal with customers.

Cybersecurity: the practice of defending electronic infrastructure and networks, as well as data, from malicious attacks.

Digital Payments: entails the transfer of value from one payment account to another using a digital device such as a mobile phone, or computer. This may include payments made by traditional financial institutions and FinTechs via bank transfers, e-Money and payment cards.

Data Protection: laws and/or regulations designed to protect people's personal data.

Digital Financial Services (DFS): financial products and services, including payments, transfers, savings, credit, insurance, securities, financial planning and account statements that are delivered via digital/electronic technology, that can incorporate traditional financial service providers.

Digital Infrastructure: the enabling digital structures, facilities, ecosystem and capabilities surrounding the provision of FinTech/DFS, but the term can be widely applicable beyond financial services. For the purposes of this study, this typically includes infrastructure related to identity (e.g. digital identity initiatives), data analytics and sharing, credit information and/or payment systems and risk mitigations. While these may be directly or indirectly relevant for the regulation and supervision of FinTech/DFS, not all of these may be under the remit or influence of financial regulators.

E-Money: encompasses the issuance of electronic funds and the provision of digital means of payment to access these funds. It includes mobile money which entails the use of a mobile phone to transfer funds between banks or accounts, deposit or withdraw funds or pay bills.

FinTech: encompasses advances in technology and changes in business models that have the potential to transform the provision of financial services through the development of innovative instruments, channels and systems. For the purposes of this study, FinTech refers to a set of activities (which may be either regulated or unregulated, according to each jurisdiction) contributing to the provision of financial products and services facilitated predominately by entities emerging from outside of the traditional financial system.

FinTech Market: the provision, transaction and facilitation of financial activities across emerging verticals including digital lending (e.g. peer-to-peer (P2P) lending), digital capital raising (e.g. equity-based crowdfunding), digital banking, digital savings, digital payments and remittances, digital custody, InsurTech, WealthTech, cryptoasset exchanges and the supply of enterprise technologies, RegTech, alternative data analytics and other services.

Innovation Office: a dedicated office within a regulator which engages with and provides regulatory clarification to innovative financial services providers. These may also be known as Innovation or FinTech Hubs.

Open Banking: the process whereby banks and other traditional financial institutions give customers and third parties easy digital access to their financial data. This often takes place via application programming interfaces (APIs).

RegTech/SupTech: for the purposes of this study, SupTech refers to the use of innovative technologies *by regulators* to tackle regulatory or supervisory challenges. It is a subset of RegTech, which includes any use of technology to match structured and unstructured data to information taxonomies or decision rules that are meaningful to both regulators and the regulated entities, in order to automate compliance or oversight processes. The two terms are used interchangeably in this study given their varying usage by regulators, and the potential for commonly adopted definitions, standards and protocols.

Regulatory Framework: for the purposes of this study, this is an umbrella term that includes laws, regulations, directives, guidelines, recommendations and procedures, issued by legislators and regulators. These could be standalone or contained within a wider regulatory framework.

Regulatory Innovation Initiatives: a broad set of activities carried out by regulators to innovate regulatory and supervisory functions, processes, organisations and applications, which often but not necessarily involve the use of technological solutions.

Regulatory Sandbox: formal regulatory programmes within a regulatory agency that allow market participants to test new financial services or models with live customers, subject to certain safeguards and oversight.

Sukuk: the Islamic equivalent of a bond or, as defined by the AAOIFI, "certificates of equal value representing undivided shares in ownership of tangible assets, usufruct and services or (in the ownership of) the assets of particular projects or special investment activity" (AAOIFI, 2020).

1. Executive summary

1. Executive Summary

The FinTech sector has seen immense growth within the Middle East and North Africa (MENA) region recently, and this trend looks set to continue. FinTech is seen by regulators in the region as a tool to support efforts for financial inclusivity and economic growth. However, there is a large disparity across jurisdictions in the region, both economically and in their approach to financial services regulation. Regulatory frameworks across the region are at various stages of development, and authorities are still formulating the right balance between promoting innovation and protecting customers for each jurisdiction.

This study reviews how MENA jurisdictions have responded to both the opportunities and challenges associated with FinTech and wider Digital Financial Services (DFS) through regulatory efforts and processes, as well as regulatory innovation initiatives. It forms part of a series of three studies reviewing the regional FinTech regulatory landscape in Sub-Saharan Africa (SSA) (CCAF, 2021a) and Asia Pacific region (APAC). By comparing experiences across jurisdictions within MENA and across regions, this study seeks to shed light on the dynamic and evolving landscape of FinTech regulation and provide evidence and insights to inform policymaking and industry development.

This study draws on data from the *Global COVID-19 FinTech Regulatory Rapid Assessment Study* (CCAF and World Bank, 2020), *Regulating Alternative Finance* (CCAF and World Bank, 2019), direct surveys issued to a select number of regulators, and a qualitative review of regulatory frameworks[1] relating to FinTech activities in jurisdictions across MENA. The FinTech verticals of particular interest in this study are digital payments, e-money, international remittances, peer-to-peer lending (P2P) and equity crowdfunding (ECF). It also examines cross-sectoral regulatory frameworks that affect the financial sector such as data protection, cybersecurity, anti-money laundering, consumer protection, open banking and electronic Know Your Customer (e-KYC).

This study proceeds to discuss the current state of regulatory innovation in MENA, highlighting recent initiatives such as developing innovation offices and regulatory sandboxes, and the adopting of RegTech/SupTech solutions. Finally, the study concludes with a discussion of some of the key regulatory challenges and identifies further research areas. It also presents two detailed country case studies on the regulatory approaches to FinTech adopted by Egypt and Jordan.

The observed impact of COVID-19 on FinTech and regulation in the MENA region

The COVID-19 pandemic has accelerated the adoption of FinTech and led MENA regulators to increase the priority of the sector in their workplans. Regulators highlighted the supportive role of FinTech in achieving their objectives. For example, most surveyed regulators perceived FinTech to be supportive in market development (85%), promoting financial inclusion (77%), promoting competition (69%) and in promoting the broader adoption of digital financial services (62%). It is notable that regulators from MENA viewed FinTech to be more supportive to their objectives than the global average, and the difference is particularly striking in terms of market development (85% in MENA relative to 61% globally) and in promoting competition (62% in MENA relative to 47% globally).

1 Regulatory frameworks include laws, regulations, directives, guidelines and other regulatory information.

Recognising the increased importance of remote onboarding during COVID-19, 46% of regulators in MENA have introduced new measures relating to KYC, AML and digital identity during the pandemic. In addition, regulators have launched measures and initiatives to support economic relief (46%), business continuity (38%) and cybersecurity (23%).

75% of MENA regulators who responded to the COVID-19 survey perceived an increase in cybersecurity risk related to FinTech during the pandemic. This was in addition to a perceived increase in operational risks (67%), fraud and scams (33%) and consumer protection risks (25%). The concerns of MENA regulators regarding cybersecurity and operational risks are generally shared by regulators around the globe, although it is notable that there is an enhanced perception of the increasing risks of fraud in the region when compared to the global average (33% in MENA compared with 18% globally).

FinTech specific regulatory frameworks

92% of sampled jurisdictions in MENA have established regulatory frameworks for payments, with 8% of these frameworks specific to digital payments. Relative to other FinTech verticals, in the MENA region the payments subsector dominates in terms of the level of business and start-up activity.

92% of the sampled jurisdictions in MENA have established a regulatory framework for e-money. In 8% of sampled jurisdictions, they do not regulate e-money, while 50% regulate emoney through a general payments framework, and 42% have created a specific e-money framework. Agents acting on behalf of financial service providers play a pivotal role in broadening the use of e-money and are permitted in the regulatory frameworks of 90% of the sampled MENA jurisdictions.

80% of the sampled MENA jurisdictions have a regulatory framework for international remittances in place, with a further 10% having one under development and only 10% treating it as unregulated or self-regulated. Of those jurisdictions with a regulatory framework, 70% include international remittances within a general payments framework, with the other 10% regulating through other frameworks.

67% of sampled jurisdictions in MENA have a bespoke framework that regulates P2P lending and a further 17% of jurisdictions are planning to introduce a framework. 17% of jurisdictions have prohibited P2P lending, while 17% treat it as unregulated or self-regulated. The MENA regions' use of bespoke regulatory frameworks to regulate P2P lending mirrors APAC, where half of the jurisdictions reviewed also took this approach. Two jurisdictions, Morocco and Turkey, have prohibited P2P lending activities.

69% of the sampled MENA jurisdictions have a bespoke equity crowdfunding framework, with a further 8% planning to introduce a framework. 8% of sampled jurisdictions have prohibited this activity, and 15% treat it as unregulated or self-regulated. The prevalence of bespoke regulatory frameworks in the MENA region is similar to APAC where 50% of the jurisdictions reviewed established bespoke regulatory frameworks, in contrast with the SSA region, where only 17% of the jurisdictions reviewed used bespoke regulatory frameworks to oversee ECF.

Cross-sector regulatory frameworks that impact FinTech

92% of sampled jurisdictions in MENA have a general regulatory framework for cybersecurity in place while a further 8% have a roadmap or strategy for cybersecurity. It is also notable that 54% of the sampled jurisdictions have introduced additional measures on cybersecurity since the start of the COVID-19 pandemic, mainly focusing on raising awareness of ongoing cybersecurity threats among market participants. In addition, in 54% of sampled jurisdictions at least one financial regulator has implemented a financial services sector specific cybersecurity framework.

69% of the sampled MENA jurisdictions have a broad framework for data protection in place, with 23% planning to adopt one and 8% having no framework. In addition, in 85% of sampled jurisdictions, at least one financial regulator has implemented a financial services specific data protection framework. Concerns regarding fraud and cyber risk have led to increased activity by regulators to ensure financial sector data protection and cybersecurity frameworks are in place.

23% of the sampled jurisdictions in the MENA sample have regulatory frameworks in place for open banking, with a further 54% planning to introduce a framework. While this could be a positive development, the modest amount of regulatory activity could be explained by the number of low and middle level income countries with fewer resources and capabilities on open banking in the region. According to the World Bank Income Group classification, all sampled jurisdictions graded 'high income' and 'upper middle income' either have an existing or planned open banking initiative, while none of the 'lower middle income' jurisdictions currently have one.

92% of sampled jurisdictions have financial consumer protection frameworks in place. Jurisdictions have implemented these frameworks in a variety of ways: some, such as Morocco have general consumer protection laws with a set of explicit provisions regarding financial services. Others, such as Bahrain, have specific consumer protection provisions within their financial sector legal framework, alongside a more general consumer protection law.

Financial consumer protection is an area of concern that has been elevated by the COVID-19 pandemic, with 64% of surveyed jurisdictions introducing additional measures since the onset. Such measures focused on enacting additional legislation to minimise the emerging risks to consumer data arising from increased e-commerce activities.

In terms of Anti-Money Laundering (AML) and Combatting the Financing of Terrorism (CFT), all sampled jurisdictions have a framework. There is a tendency in MENA to have the central bank (46%) as the main regulator of AML/CFT issues, while 38% of jurisdictions have multiple authorities with a mandate for AML/CTF.

e-KYC frameworks exist in 67% of the sampled jurisdictions. 42% of these are e-KYC specific frameworks and 25% are general KYC frameworks that enable e-KYC. A further 8% of jurisdictions are planning to introduce a framework, while 17% of jurisdictions expressly forbid e-KYC. Market firms in MENA noted an urgent need for regulatory support for e-KYC (33%) and remote onboarding (40%), highlighting them as a key demand of market participants to regulators.

Regulatory innovation initiatives

A review of all MENA jurisdictions for regulatory innovation initiatives reveals a significant increase in activity over the last two years. **This study identified 12 innovation offices across the region (with a further one planned), up from five in 2019. There are also 11 regulatory sandboxes in place (with a further five planned), up from four in 2019.**

These initiatives may help to facilitate increased engagement between regulators and FinTech firms, while helping to create an environment that is more conducive to the growth of the FinTech sector. They may also be useful in streamlining authorisation processes and reducing the time it takes for firms to get to market. This is reflected in the high demand by the private sector for regulatory innovation initiatives, with 59% of FinTech firms surveyed in MENA suggesting they “urgently need” exemptions to operate new financial services or products, and 54% demanding a faster turnaround for the authorisation and licensing of new activities.

Hurdles faced by regulatory authorities in MENA when establishing regulatory frameworks and innovation initiatives

MENA regulators reported several hurdles in the establishment of regulatory frameworks and innovation initiatives. The obstacles in forming regulatory frameworks include limited technical skills, as (reported by 75% of surveyed regulators), the need to coordinate activities of multiple regulators (50%), limited funding/resources for the regulator (50%), and the small size of the industry making it harder to justify a supervision regime (50%).

Regulators have cited several factors related to the pandemic which are affecting their ability to effectively develop their responses to FinTech, with 62% of surveyed regulators identifying challenges in performing core functions while working remotely (e.g. carrying out on-site visits) and 31% highlighting an increased demand on resources. It is notable that 69% of regulators responded that coordination with other agencies has also been an issue.

It is also notable that surveyed MENA regulators perceived that they had a similar level of preparedness for the COVID-19 pandemic relative to our global sample (55% relative to 54% globally). While in a separate question, 55% those surveyed stated there was a low adequacy of resources to respond to the COVID-19 pandemic, slightly below the assessment of regulators globally at 59%).

Country case studies:

This study includes two detailed country case studies on Egypt and Jordan. These provide insights on FinTech market development, the applications of regulatory frameworks and the challenges in creating an enabling FinTech ecosystem for other jurisdictions in MENA and beyond.

Egypt: Egypt is often cited as a key market in the MENA region that has enormous potential for FinTech growth and advancing financial inclusion. In recent years, a flurry of regulatory activities relating to FinTech have taken place in Egypt. For instance, in June 2019, a regulatory sandbox was established, and a FinTech Hub was launched in Cairo. Recent reforms have introduced FinTech-specific provisions into overarching laws such as the Egyptian Banking Law, and there is activity-specific regulation for areas such as mobile payments, simplified KYC and mobile payments. Financial inclusion has also been raised as a priority. However, financial and digital literacy, as well as a gender gap, remain obstacles to the growth of the FinTech sector.

Jordan: Jordan is also actively adapting its regulatory environment to enable financial innovation, propelled by its financial inclusion initiatives, some of which are aimed at addressing the challenges posed by a large refugee population. The National Financial Inclusion Strategy (NFIS) was launched in 2018 to increase access to finance and to decrease the gender gap. The central bank also launched a regulatory sandbox in 2018. The broad mandate conferred to regulators has enabled regulatory reform that encouraged the development of the FinTech sector, especially segments such as mobile wallets and payments.

2. Introduction

2. Introduction

FinTech in the MENA region

The MENA region has seen growth in FinTech activity, despite diverse regulatory objectives, geographies, cultures and economies. With a population of over 400 million, many of whom are underserved by the current financial system, FinTech is seen by many authorities as a tool to support efforts for financial inclusion and economic growth (World Bank, 2020a). Regulations across the region are also at various stages of development, as many authorities are still formulating their approach to balancing the promotion of innovation and protecting customers (Shumsky, 2021).

Technology is transforming the provision of traditional financial products and services but has also facilitated the creation of alternative financial products and services by entities emerging outside the traditional financial system. This is evidenced by the high penetration of specific FinTech verticals such as P2P lending in some MENA jurisdictions. Traditional financial stakeholders are also adapting to technological change (Arezki and Senbet, 2020). A recent report overviewing select MENA jurisdictions found that despite the penetration in specific verticals, banks in some MENA jurisdictions still have a 'wait and see' approach towards forming partnerships with FinTech entities (Deloitte Digital, 2020).

The technological transformation of finance in the region is evident in a range of financial verticals, including Islamic finance (World Bank, 2020). This transformation is supported by the fact that investment in FinTech is rising in MENA, albeit starting from a low base relative to other regions (FinTech in the Middle East, 2019). Regulators in MENA are also responding to the growing presence of FinTech, with jurisdictions introducing legislation and creating regulatory innovation initiatives to aid the creation and establishment of FinTech firms and accelerating the provision of DFS.

FinTech is still largely concentrated in a small number of MENA jurisdictions: as much as 75% of FinTech companies are located in the UAE, Egypt, Morocco, Bahrain, Tunisia, Jordan and Lebanon (CGAP, 2020; Egyptian Banking Institute, 2020). Among these, the UAE hosts the largest number of FinTech firms, with estimates ranging from 24% to 46% of the regional total. Israel is also a dynamic centre of FinTech activity (Shumsky, 2021; Zarrouk, El Ghak and Bakhouche, 2021). Israeli start-up companies are deemed to have a high value-for-money ratio, combining high technological maturity and low operating costs, with estimates placing its FinTech market as high as USD 16,213 million in 2021 and an annual growth rate of up to 16% in transaction value (Deloitte, 2021).

FinTech in the MENA region has not been a centre of investment when compared to other regions such as APAC, North America, and Europe, accounting for only 1% of global FinTech investment between 2010 and 2017 (Zarrouk, El Ghak and Bakhouche, 2021). Yet, since then, FinTech has been one of the focus areas for policymakers, especially among Gulf Cooperation Council (GCC) countries. The development of FinTech supportive ecosystems in the economic free zones of the UAE – particularly Abu Dhabi Global Market (ADGM) and Dubai International Financial Centre (DIFC) – contributed to the growth of FinTech in the area (Global Ventures, 2020; Mueller and Piwowar, 2019). In addition, institutional and governmental investment has played a role in the development of FinTech (CCAF, 2018) as governments seek to achieve economic diversification and reduce reliance on natural resource endowments (Arezki and Senbet, 2020; Global Ventures, 2020; Mueller and Piwowar, 2019). Hence there has been a gradual increase of investment in FinTech by sovereign wealth funds, such as by the UAE and KSA. There are also efforts in MENA to support FinTech activity by central banks as demonstrated in Egypt, as well as by development banks, such as Bahrain's Development Bank, and through public-private partnerships with venture capital. Thus, while the FinTech sector investment in MENA remains relatively small relative to the rest of the world (Zarrouk, El Ghak and Bakhouche, 2021), it has seen rapid growth (CCAF, WEF, and World Bank, 2020; JETRO, 2020). Global Ventures estimates that in 2022 venture capital funding for MENA FinTech will grow to as much as USD 2.3 billion (Global Ventures, 2020; Clifford Chance, 2019; Mueller and Piwowar, 2019).

The impact of COVID-19

Regulators globally are responding to the additional challenges of the COVID-19 pandemic and regulators in the MENA region are no different. This study identifies a range of challenges that the pandemic has introduced for regulators, as well as mapping regulator opinion on the importance of FinTech during the current COVID-19 crisis.

The economic downturn during the pandemic and the challenges of economic recovery have created pressures in financial markets and for their regulators, as consumers shifted to DFS *en masse*. As a result, regulators increasingly see FinTech as a priority in the MENA region (CCAF and World Bank, 2020). The increased importance of FinTech, as suggested by the MENA regulators who responded to the CCAF and World Bank Global COVID-19 FinTech Regulatory Rapid Assessment Study, is in line with evidence of increased volumes of transactions in the MENA region.

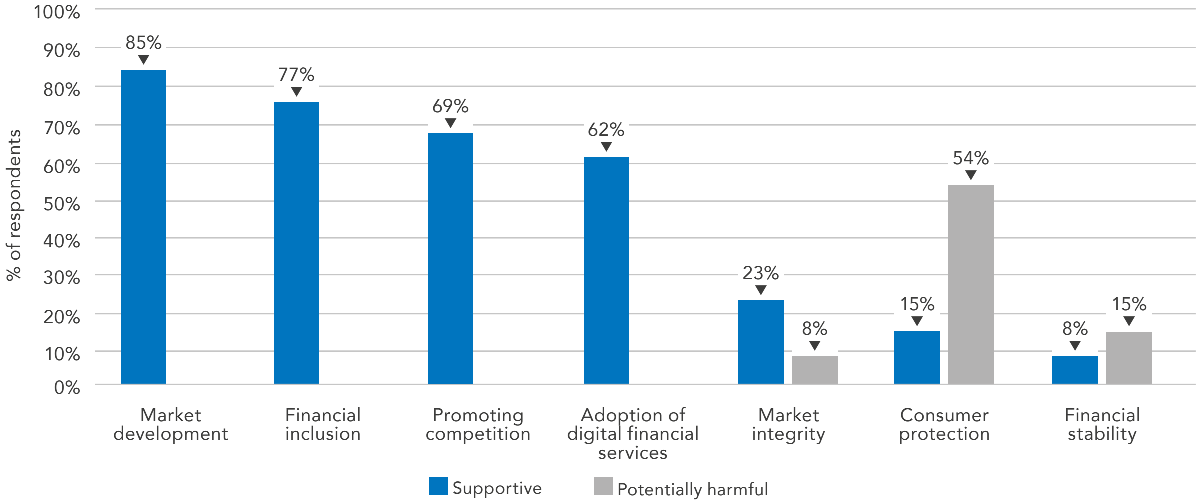
FinTechs that operated in MENA and responded to Global COVID-19 FinTech Market Rapid Assessment Study reported the largest average growth of all regions globally across nearly all market performance indicators captured in this study (CCAF, WEF and World Bank, 2020). More specifically, transaction volumes increased by 51% in digital payments, and by 66% in digital banking. Even in digital lending, a FinTech vertical that had a global decline, the MENA region reported a 9% increase in transactions (CCAF, WEF and World Bank, 2020).

Therefore, the regulatory perception within MENA of FinTech as an increased priority in light of COVID-19 is in line with the market data.

MENA regulators have faced the same challenge as regulators across the world to ensure they can achieve their regulatory aims during the COVID-19 pandemic. **Figure 2.1** indicates that MENA regulators broadly perceive that FinTech is supportive to the aims of market development (85%), financial inclusion (77%), promoting competition (69%) and promoting the broader adoption of DFS (62%). It is notable that the MENA responses by regulators are more supportive than the global average, and the difference is particularly striking in terms of market development (85% in MENA relative to 61% globally) and in promoting competition (62% in MENA relative to 47% globally).

It is also notable that there is an increased perception of FinTech as potentially harmful in the MENA region when compared to global regulatory responses. MENA regulators consider FinTech as potentially harmful rather than supportive of the regulatory objectives of consumer protection (54% potentially harmful vs 15% supportive) and financial stability (15% harmful vs 8% supportive). This differentiates MENA regulatory opinion from the global average where regulators did identify risks in consumer protection and financial stability but see FinTech being more supportive than potentially harmful on both issues. The fact that there is such a wide variation across the MENA region and the sharp disparity with the global average on issues such as consumer protection seems to suggest specific concerns held by the region's regulators. Financial consumer protection is one of the cross-cutting regulatory frameworks for MENA that is explored in **Chapter 5**.

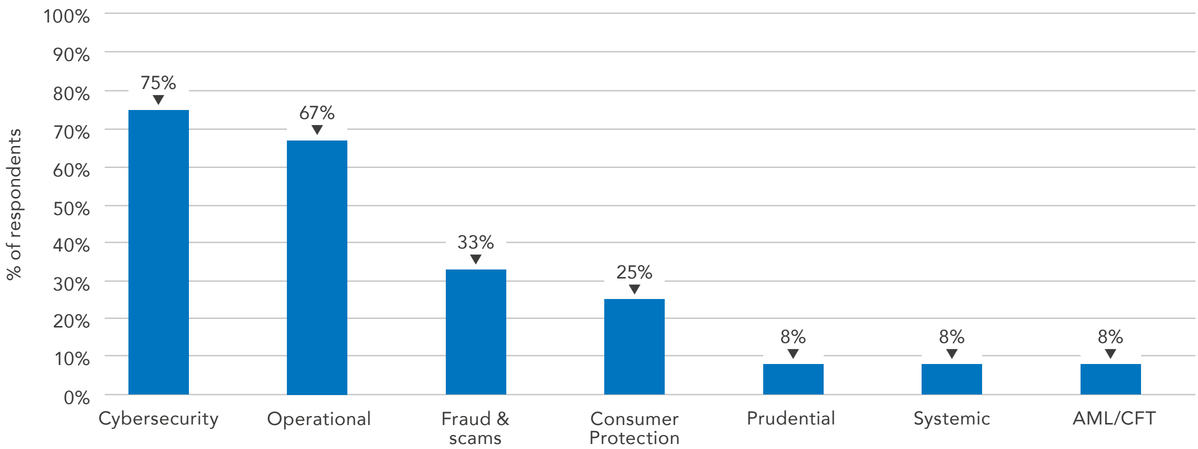
Figure 2.1: Perceived impact of FinTech on regulatory objectives in light of COVID-19 – MENA (N=13)



Note: N refers to number of regulators in MENA who responded to a survey. Source: (CCAF and World Bank, 2020).

MENA regulators also identified increasing risks in FinTech due to COVID-19. Up to 75% of regulators who responded to the COVID-19 survey considered cybersecurity risk to have increased and 67% reported increased operational risks. The concerns of MENA regulators regarding cybersecurity and operational risks are generally shared by regulators around the globe, although it is notable that there is an enhanced perception of the increased risks of fraud in the region when compared to the global average (33% in MENA compared with 18% globally).

Figure 2.2: Regulator perceptions of COVID-19 increasing risks of FinTech – MENA (N=12)



Note: N refers to number of regulators in MENA who responded to a survey. Source: (CCAF and World Bank, 2020).

During the pandemic, regulators have significantly accelerated efforts directed to regulatory innovation initiatives, with some regulators launching or prioritising digital infrastructure projects, RegTech/SupTech solutions, innovation offices and regulatory sandbox initiatives. We map out the regional spread of regulatory innovation and identify the key challenges in promoting innovation in **Chapter 6**.

3. Literature review and methodology

3. Literature review and methodology

The MENA region is one of the most dynamic when it comes to the variety of approaches and regulatory initiatives to tackle a range of challenges. This often arises from very particular sets of circumstances such as large migrant populations with linkages to other regions. Varying degrees of legacy regulatory frameworks, a broad canvas for financial inclusion, and support from different levels of government have facilitated legal and regulatory reform in support of FinTech in the recent past.

Literature review: Variation in regulatory approaches

The MENA region has a wide variation in geographies, demographic challenges and incomes. As a result, we see not just a broad diversity in regulatory approaches, but also variation among regulatory objectives.

Financial inclusion and the unbanked population

Financial inclusion is one of the main priorities in the MENA region, even though the drivers for inclusion vary from jurisdiction to jurisdiction.

Across MENA jurisdictions, those without access to banks and financial services still comprise a significant part of the population; only 41% of adults in the MENA region have access to banks (CGAP, 2020). The desire to tackle these low levels of financial inclusion led to substantial regulatory initiatives, with a strong focus on electronic mobile wallets, as well as innovation in payments and remittances (Riley, Romorini, Golub and Stokes, 2020; Clifford Chance, 2019). In Egypt, for instance, regulatory efforts have been deployed to upgrade payment systems (Clifford Chance, 2019) while in Jordan, electronic mobile wallets were introduced to help reduce financial exclusion (Clifford Chance, 2019).

However, stark variations exist with regards to financial inclusion throughout the region. While Jordan and Egypt, have 50% and 16% respectively of their populations banked, jurisdictions with higher per capita income levels such as Bahrain, Kuwait and Qatar reach 87%, 80% and 74% respectively (Central Bank of Jordan, 2021a; Deloitte Digital, 2020). Most jurisdictions in the MENA region, regardless of financial inclusivity, remain very much cash-based societies: as much as 75% of transactions in the UAE are cash-based, and even with the expansion of e-commerce, most consumers still prefer cash-on-delivery transactions (Global Ventures, 2020).

Digital infrastructure

MENA jurisdictions do not just differ in regulatory objectives but also in digital infrastructure. While GCC jurisdictions and Israel benefit from well-established digital infrastructure – which has support from regulatory frameworks, centralised government initiatives, and a relevant level of talent – other jurisdictions in the MENA region are developing in a varied and disparate infrastructure environment. As digital infrastructure impacts the quality of digital financial services, this should prove to be an increasing area of attention to regulators across the region (Arezki and Senbet, 2020).

Variation across FinTech verticals

The growth of FinTech in the MENA region is not evenly distributed across all FinTech verticals. Most FinTech activity in MENA is concentrated on the digital payments segment, followed by remittances, digital lending, and digital banking (CCAF, WEF and World Bank, 2020; Global Ventures, 2020; Mueller and Piwowar, 2019). Jurisdictions such as the UAE, Israel and Morocco have introduced bespoke regulation for payment services. In some instances – such as in Egypt – e-payments became mandatory for some transactions, such as those involving public institutions and private companies (Riley et al., 2020). Likewise, some regulators started to embed FinTech products into several governmental services. In Egypt, for instance, in the context of the

National Strategy for Non-Banking Financial Activities, a national payment scheme for pensioners, civil servants and subsidy recipients – called Meeza – was launched by the Egyptian Central Bank and the Egyptian Banks Company, enabling payments through either phone or digitised cards. Meeza allows users to receive electronic government payments, transfer funds and shop online using its payment gateway (Riley et al., 2020).

Following the significant growth of the payments segment in MENA, regulators have taken measures such as bespoke rules for data privacy, consumer protection and minimum share capital requirements which are identified in **Chapter 4** and **Chapter 5**. There are also some recent initiatives to increase cybersecurity capacity, especially in the international financial centres (Arab Monetary Fund, 2021a, 2020a).

The international remittances segment is also highly relevant to the MENA region, as it has some of the densest expat communities in the world. Estimates suggest that the GCC accounts for as much as 18% of the world's remittances (especially to countries such as India, Pakistan, and the Philippines), with countries such as the UAE having as much as 90% of their population composed of expatriate workers (Mueller and Piwowar, 2019). In terms of figures, expatriates in the GCC sent as much as USD 120 billion back home over the course of 2017 (Alam and Nazim Ali, 2021). Moreover, the remittances segment tended to be very monopolised in the past, with high rates and fees, inspiring FinTech start-ups to disrupt the market, where competition was permitted (Global Ventures, 2020).

Common challenges also exist in terms of e-KYC and onboarding. While some countries in the MENA region, such as the UAE, having rolled out national digital identity programmes that are integrated with facilitating access to financial services, others are still formulating their policy towards digital identity and e-KYC (Arab Monetary Fund, 2020a).

The growth of FinTech market activity in the region has taken place in parallel with the broadening and widening of regulatory innovation initiatives (Mueller and Piwowar, 2019). A common approach has been to launch regulatory sandboxes, which provide a framework and set of tools for financial service providers to test innovative products and business models on a limited scale – this was done in jurisdictions such as the UAE, KSA, Bahrain, Egypt and Jordan (CCAF, 2018; Global Ventures, 2020; Egyptian Banking Institute, 2020). Notably, the DIFC regulatory sandbox has a specific focus on Sharia-compliant FinTech (Oseni and Ali, 2019). There are equally some RegTech and SupTech initiatives, such as ADGM's automation of its licence application process, and Bahrain's AML measures based on machine learning for the smart monitoring of illicit activities (GCC Working Group on Suptech & Regtech, 2020). Some regulators have also introduced SupTech, such as the Central Bank of Bahrain which has migrated their model to the cloud and invested heavily in cyber security and digital infrastructure (CBB, 2021). The existence of supportive regulatory initiatives – including sandboxes and innovation offices – has also contributed to the development of MENA FinTech (Zarrouk, El Ghak and Bakhouche, 2021). We map the existing regulatory innovation initiatives across the region in **Chapter 6**.

MENA regulators are also supportive of international cooperation. ADGM was the first non-ASEAN regulator to join the ASEAN Financial Innovation Network (Global Ventures, 2020) and several countries have joined the Global Financial Innovation Network – with the Central Bank of Bahrain and the Dubai Financial Services Authority being part of GFIN's Coordination Group (Global Financial Innovation Network, 2021a). MENA authorities have equally entered into a growing number of MoUs to facilitate cooperation on FinTech-related initiatives – including with countries in the APAC region such as Singapore (Clifford Chance, 2019) – and have established representative offices in other countries (Mueller and Piwowar, 2019).

Literature review: The regulatory challenges

Despite the recent rapid development of the FinTech market in MENA, various regulatory challenges have been identified in the literature. These tend to be more pronounced in jurisdictions that have not established all the supporting infrastructure for FinTech activities or have yet to scale up their regulatory responses due to the market's growth. Moreover, even in jurisdictions with more established frameworks, the COVID-19 pandemic has created new challenges.

There is still uncertainty in some jurisdictions relating to the legal frameworks applicable to FinTech market participants. This is more pronounced where existing or general, overarching laws apply to FinTech segments as opposed to bespoke frameworks. For instance, as more jurisdictions introduce data protection laws, it is often unclear what is expected of FinTech start-ups and whether a proportionate approach (with, for instance, simpler e-KYC and onboarding requirements for SMEs and start-ups) will be allowed to facilitate the growth of younger firms (Clifford Chance, 2019). Some difficulties have arisen from jurisdictions that have provisions dictating that non-banks are not authorised to offer financial services, making it unclear whether full licensing would be needed to develop FinTech activities in some market segments (Riley et al., 2020). Such uncertainty has often led FinTech firms to partner up with local banks to reduce regulatory uncertainty (Clifford Chance, 2019).

There are potential issues with regulatory fragmentation, both within jurisdictions and across the region. For example, while the economic free zones increase the flexibility for regulators to create supportive regulatory frameworks that incentivise FinTech, they do not provide a passport to any other jurisdiction and can make it more difficult for firms to expand their activities (Clifford Chance, 2019). Some market segments in particular – such as digital credit lending and crowdfunding – are also highly fragmented, with regulation varying from jurisdiction to jurisdiction. While jurisdictions such as Lebanon, the UAE, Bahrain, Israel, KSA, and Morocco are leading the way in the development of bespoke regulatory regimes for the crowdfunding sector, usually with both conventional and Sharia-compliant platforms, other markets either lack or limit the ability of firms to pursue such activities (CCAF, 2018; Clifford Chance, 2018).

There are still some doubts about the effectiveness of international regulatory coordination in the region. Even with the increasing advent of MoUs and FinTech bridges, it is too early to determine whether the structures in place suffice, especially regarding information sharing and the oversight of firms with activities in multiple countries (Global Ventures, 2020). Still, initiatives such as the FinTech Working Group from the Arab Monetary Fund is a positive development that should promote regional cooperation and provide a better understanding of the FinTech challenges in the MENA region.

As is the case with other regions, there are emerging risks that must be addressed by the regulatory authorities. Among those, customers are especially concerned about data security and privacy (Deloitte Digital, 2020). As a result, cybersecurity – with aspects such as third-party cloud computing and storage providers, data sovereignty and security, the lack of cloud-related regulations and national cloud strategies – are increasingly on the agenda of financial regulators (Kheira, 2021). Issues with the quality of infrastructure and difficulties with talent acquisition, retention and capacity-building within the regulators further complement the challenges in scaling up the sector in the region (Egyptian Banking Institute, 2020). These talent acquisition issues are somewhat less pronounced in countries such as Israel, where governmental or army-driven initiatives have been responsible for supplying industry with experts in areas such as cybersecurity, big data analytics and IT systems. Similarly, hubs such as ADGM and DIFC have addressed talent acquisition issues by attracting experienced regulators from Europe and North America (Mueller and Piwowar, 2019; Deloitte, 2021).

A changing regulatory environment

Some of the features that enable the expansion of FinTech in the MENA region are areas that demand increased attention from the regulators.

With growth in the payments sector and increased use of e-commerce solutions, more robust frameworks for consumer protection and data privacy will be required. In particular, there is space for improving minimum requirements for disclosure when marketing financial products and services, as well as aligning best practices for financial consumer protection with international trends (AFI, 2021; Egyptian Banking Institute, 2020). There is equally some concern about how the increase of activities in areas such as P2P finance could give rise to new risks to the consumer.

The COVID-19 pandemic also created a series of challenges for regulators in the MENA region. The most common regulatory response among MENA countries was regulatory support for e-KYC. The Central Bank of Jordan provides an illustrative example of the modification of a regulatory innovation initiative in light of the pandemic through their regulatory sandbox, which was launched in 2018. In response to the pandemic, they sought to explicitly target and encourage applications from firms whose innovations might specifically help address COVID-19 related challenges (CCAF and World Bank, 2020).

The unique demographics of FinTech in the MENA region also pose some challenges. For instance, as international firms outnumber regional or local firms, they often face a steep learning curve to understand how to conduct business in the region, as well as how to access the services and infrastructure they need in addition to navigating a fragmented regulatory environment. Therefore, regulators should be mindful of the increased barriers that non-local companies might face. As some countries have relatively small populations and internal markets do not see high levels of activity, the lack of harmonisation across the region might make it more difficult to scale and reach profitability (Kheira, 2021; Mueller and Piwowar, 2019). In addition, excessively stringent FinTech regulation might stifle growth, especially if one-size-fits-all solutions are adopted (World Bank, 2020a).

As discussed, FinTech has an important role to play in terms of financial inclusion in MENA, with regards to servicing unbanked and displaced populations. As inclusion increases, however, ensuring that consumer financial literacy equally increases (as does regulatory capacity), may become essential to curb medium and long-term risks that would arise otherwise (Riley et al., 2020; Kheira, 2021). In the same vein, the deployment of digital identity across the region could help address its financial inclusion issues.

In terms of long-term sustainability, investment in the underlying infrastructure for the FinTech market will become increasingly relevant. Apart from addressing the talent gap, robust risk management policies and adapting KYC and AML frameworks to the evolving practices might help the balancing act between fostering innovation while safeguarding consumers and financial stability (CGAP, 2020; World Bank, 2020a).

Literature review: Islamic finance

The CCAF reviewed the emerging FinTech in Islamic finance in its previous study of the region (CCAF, 2017), noting that although the sector was small, it was rapidly expanding. Nearly a quarter of the world's population is Muslim but only just over 1% of total global financial assets are Islamic finance assets (CCAF, 2017). According to ICD-Refinitiv, it is expected that Islamic finance assets will grow significantly, from an estimated USD 2.5 trillion in 2018 to a forecasted USD 3.5 trillion in 2024 (World Bank, 2020a). The World Bank also estimated that most funds originating from Muslim countries flow mainly to OECD countries, with estimates of sovereign wealth funds amounting to USD 3 trillion (World Bank, 2020a).

Islamic finance is based on Islamic law (Sharia), a form of code or guidelines which relate to all aspects of life including economic, political and social elements. Broadly speaking, when it comes to finance, money must be used in a productive way, promote social justice and be ethically traded. Sharia does not allow investment in unethical (Haram) industries including but not limited to arms, entertainment, gambling and non-halal food. Key principles of Islamic finance are asset-based investments and risk-sharing (profit and loss sharing). Unlike conventional debt financing, instead of charging an interest rate, the financier will receive a return as a portion of the profits earned based on a predetermined ratio, and the financier will also share any losses (Musharakah). Interest can neither be paid nor be received.

The Islamic finance industry is mostly concentrated in Asia and MENA regions (World Bank, 2020a). The core markets are Bahrain, Qatar, Saudi Arabia, Indonesia, Malaysia, UAE, Turkey, Kuwait and Pakistan, which together account for 93% of the industry's assets. Outside the Muslim world, the United Kingdom is also a centre of Islamic financing. The UK was the first jurisdiction to launch an Islamic bond (sukuk), and today hosts six Islamic banks plus 34 firms offering Islamic financial services products globally (IFN Fintech, 2021).

There are various Islamic finance bodies, but the main standard-setting organisations are the IFSB (Islamic Financial Services Board), AAOIFI (Accounting and Auditing Organization for Islamic Finance Institutions) and GSIFI (Governance Standard for Islamic Financial Institutions) whose rules the ADGM and DIFC refer to. Regulators in Malaysia and Singapore were the first to establish Sharia-compliant related regulatory guidelines for venture capital firms and crowdfunding platforms (CCAF, 2017). In MENA, the DFSA regulates entities such as Beehive, the MENA region's first regulated P2P lending platform that operates an Islamic window (World Bank, 2020a). Other Islamic online alternative finance platforms exist in the region, and they are checked to see if they are Sharia-compliant via different organisations, including the DMCC Tradeflow Commodity Murabaha platform. Although there are several standards and codes across the world, these are not yet applied in a consistent manner and remain a challenge, especially for new entrants to Islamic finance and FinTech.

MENA is considered a relationship-based society where funding and investment opportunities depend on closed circles of family and friends (CCAF, 2017). In turn, Islamic finance business dealings are built on trust, openness, respect, and transparency. Islamic finance also advocates knowing the asset and transaction you are going to invest in. Given these dynamics and corresponding features, as well as the region being home to a large, young, internet-savvy population with limited access to capital and investment opportunities, online alternative financing – in particular Islamic crowdfunding – opens many potential growth opportunities for the region.

Several MENA jurisdictions have acknowledged the potential of Islamic FinTech and introduced bespoke regulation for Sharia-compliant markets. In a survey conducted with global Islamic bank managers, 70% of the respondents' viewed digital transformation as an important strategic area, signalling there is eagerness for developing FinTech initiatives in Islamic finance – both in terms of start-ups that obtained Sharia compliance and firms that were developed with Sharia in mind from the ground up (Alam and Nazim Ali, 2021). Regulators in jurisdictions including Bahrain and the DIFC have created bespoke rules for Sharia-compliant crowdfunding (Clifford Chance, 2019; Oseni and Ali, 2019). There are also unique initiatives in Islamic finance such as Islamic digital challenger banks and sukuk (bond) ETFs, asset-backed interest-free loans (Murabaha) for buying and selling goods in addition to insurance (takaful) (Alam, Gupta and Zameni, 2019).

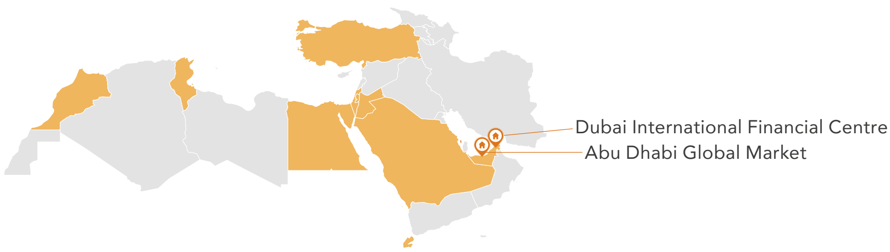
Methodology

Sampled jurisdictions and data sources

The study builds on CCAF's prior research in the region with other research partners.[2] It was designed and implemented to evaluate the current regulatory environment relating to FinTech in the MENA region. To do this, a representative sample of jurisdictions across MENA were selected. A key inclusion criterion was representation in previous CCAF regulatory innovation surveys to allow primary data collected for the purposes of this study to be merged with existing datasets. In particular, a jurisdiction was included in the sample if they had at least one regulator who responded to the 2020 Global COVID-19 Regulatory Rapid Assessment Study and the Regulating Alternative Finance 2019 Study (World Bank and CCAF, 2020; World Bank and CCAF, 2019). These previous studies evaluated the impact of COVID-19 on the regulation of FinTech and regulatory innovation initiatives, as well as understanding the global regulatory landscape with respect to the regulation of alternative finance. This approach has enabled time-series observations as well the ability to juxtapose new data collected on regulatory frameworks with previous responses from regulators.

Thirteen jurisdictions were identified where at least one regulator had responded to both surveys. The chosen jurisdictions represent a diverse sample in terms of income, legal systems as well as geographic distribution. The breakdown of jurisdictions is as follows: North Africa (3); Levant (3); Other (2); GCC (3) plus two international financial centres located in the UAE – ADGM and DIFC. This is due to the importance of international financial centres in the region, and as both international financial centres responded to the CCAF surveys. **Figure 3.1** illustrates the jurisdictions which are included in the data collection exercise. [3]

Figure 3.1: Sampled MENA jurisdictions



The sample comprises a range of income groups based on the World Bank's income classification, including lower middle income (5) upper middle income (2) and high income (4). The international finance centres (ADGM and DIFC) are excluded from the income group categorisation as the World Bank does not classify these. The sample also comprises of common law, civil law and mixed legal system jurisdictions. The MENA region is represented in its entirety in the mapping of regulatory innovation initiatives using publicly available information as shown in **Chapter 6**.

This study further collected data through a primary desktop review of regulatory frameworks (laws, regulations, directives, guidelines and other regulatory information). The findings from the review were supplemented through bespoke surveys of regulators to address data ambiguities and gaps, and then consolidated into a single dataset. This dataset and earlier regulatory surveys were further supplemented with responses from FinTechs gathered from

2 For past research on the region see: (CCAF, 2017a); (CCAF, 2017b); (CCAF, 2018a); (CCAF, 2018b).

3 The MENA jurisdictions selected for the study are: Bahrain, Djibouti, Egypt, Israel, Jordan, Morocco, the Palestine, Saudi Arabia, Tunisia, Turkey, United Arab Emirates. We have also added two international centres in the region, the Abu Dhabi Global Market and Dubai International Financial Centre.

MENA data from the Global COVID-19 FinTech Market Rapid Assessment Study (CCAF, WEF and World Bank, 2020; CCAF, 2021b), to evaluate the challenges faced by the FinTech sector in MENA. Consequently, some of the insights are drawn directly from FinTech market participant and regulator responses.

The methodology used in this report is similar to that utilised in the corresponding CCAF reports for the SSA and APAC regions. This approach was taken to allow for both intra-regional and cross-regional comparisons.

Selected FinTech sectors and cross-sectoral themes

The FinTech sectors included for analysis in this study are those of digital payments, e-money (including mobile money), international remittances, P2P lending and ECF. The 2020 Global COVID-19 Regulatory Rapid Assessment Study (CCAF and World Bank, 2020) identified these sectors as growing in importance and/or as sectors where increased market activity had been observed in light of COVID-19. The digital payments and remittances sector was a leading sector where regulators had reported both increased usage and offering of FinTech products and services, as well as where regulators had most frequently introduced targeted regulatory measures.

A second criterion was to look at the verticals where there was historical CCAF data available regarding the regulatory approach to FinTech. During the 2019 Regulating Alternative Finance survey (CCAF and World Bank, 2019), data was collected on the regulatory approach to P2P lending and ECF, both globally and across MENA.

The cross-sectoral legal and regulatory frameworks included for analysis in this study are those of consumer protection, data protection, open banking, AML, e-KYC and cybersecurity. These were selected as important cross-cutting requirements of relevance to the FinTech sector. Cross-sectoral requirements affect FinTech development as they can limit the ability of FinTech to scale. As noted in the study, such cross-sectoral issues can impact regulatory aims and mandates as well as have an impact in FinTech and DFS development.

Analytical approach

The datasets generated from past CCAF studies, together with the findings from the desk-based reviews and responses received from the regulatory outreach exercise, were used to conduct an in-depth study of the regulatory approach to FinTech in the sampled jurisdictions across the selected FinTech verticals and cross-sectoral areas.

The datasets generated through the primary desktop review of regulatory frameworks was used in **Chapters 4, 5 and 6** to provide a description of the regulatory environment in the selected verticals and the cross-sectoral areas, and to map out the regulatory innovation initiatives. In **Chapter 7**, the datasets from previous CCAF studies were supplemented by other sources including payments data from the IMF, World Bank and GSMA, together with other secondary literature. These were used to distil insights specific to the MENA region. In **Chapter 8**, we identify the themes for possible future research in the region.

Due to the widespread variability in regulator remits and responsibility over specific regulatory themes, this study looks at the jurisdiction and not individual regulators as the basic level of analysis. It must also be noted that the sample on occasion differs, since data from previous studies is employed that refers to the number of regulators surveyed, whereas the research on frameworks refers to jurisdictions. Instances where the sample differs are indicated throughout the study, together with the sources.

4. Regulatory approach in specific verticals

4. Regulatory approach in specific verticals

This chapter analyses the current regulatory landscape for specific FinTech verticals for the 13 jurisdictions surveyed. In particular, the study looks at digital payments, e-money, international remittance, P2P lending and ECF verticals. The existing legislations and broader regulatory frameworks are important for the development of FinTech as market providers seek to navigate the regulatory environments across these verticals. Whereas some of the verticals, such as digital payments, are leading sectors in terms of growth in the region, others, such as ECF, are gaining momentum.

Digital payments

The payments subsector has been identified by two studies as the dominant FinTech subsector in the MENA region relative to other FinTech verticals. This finding is similar to that of other regions globally (IMF, 2019; Global Ventures, 2020). Relatedly, a 2018 report indicates that in the MENA region, 84% of FinTech start-ups are involved in payments and remittances activity (Global Ventures, 2020).

This section considers the regulatory approach to payments and related sub-sectors (including e-money/mobile money and international remittances) in the sampled MENA jurisdictions.

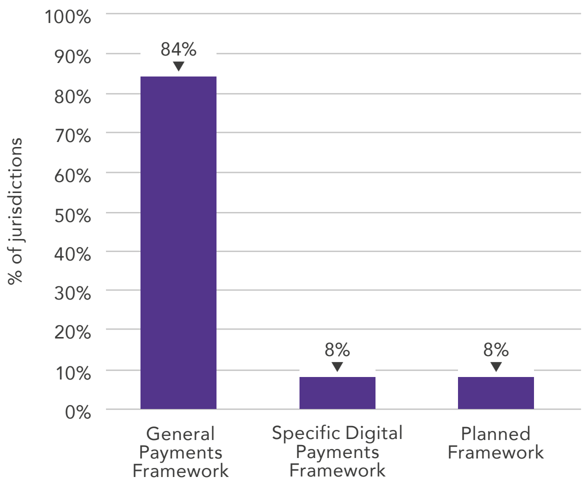
Payments: Mandate/authority

The findings demonstrate that all the sampled MENA jurisdictions have at least one regulator/agency with a mandate/authority for payments. Additionally, in 75% of the sampled jurisdictions, central banks are mandated to supervise payments. In the case of international finance centers where there are no central banks, other financial regulators have a mandate. In ADGM, the Financial Services Regulatory Authority (FSRA) is the relevant regulator, and for the DIFC, the regulator is the Dubai Financial Services Authority (DFSA).

Payments: Regulatory framework

Figure 4.1 illustrates the approach adopted with respect to the regulatory framework for payments. In 84% of the sampled MENA jurisdictions, the regulation of payments is largely undertaken based on a general payments regulatory framework. In most cases this is a broad framework that covers provisions that are applicable to different categories of payments activity.

Figure 4.1: Instances of regulatory frameworks for payments – MENA (N=12)



Note: N refers to the number of jurisdictions surveyed.

Payments: Licensing/authorisation

With respect to licensing, the provisions in the regulatory frameworks for all the sampled MENA jurisdictions require that providers obtain a licence from the relevant authority prior to engaging in payments activity.

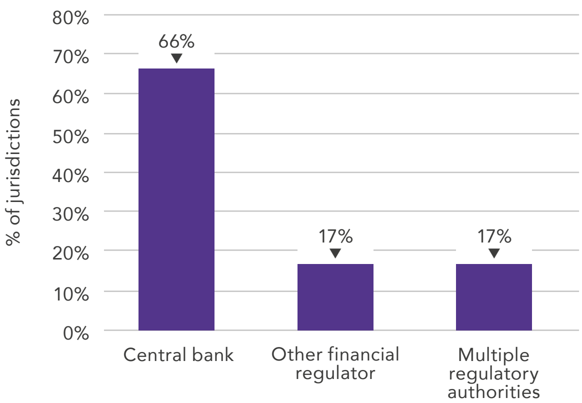
E-money (including mobile money)

E-money or mobile money tends to be one of the most active FinTech sectors across the sampled jurisdictions in SSA, APAC and MENA regions. Significantly, the MENA region is reported to lag behind other regions with regard to mobile subscribers, although the annual numbers are observed to be rising (Pamela, Romorini, Golub and Stokes, 2020).

E-money: Mandate/authority

All sampled MENA jurisdictions have a regulator with a mandate for e-money issuance. In addition, **Figure 4.2** illustrates that among regulators, there is a greater frequency of central banks holding this mandate relative to other regulators (66%). In the case of international finance centres where there is no central bank, other financial regulators may also be involved in or relevant for e-money regulation. The FSRA and the DFSA are the relevant regulators in ADGM and DIFC respectively, the two international financial centres in our sample. Moreover, multiple regulatory authorities may also be involved, although this is less common. An example is Tunisia where the Central Bank of Tunisia (BCT) is the primary regulator for mobile money and e-payments and works in partnership with the Societe Monetique Tunisie (SMT) that provides switching and clearing services. Additionally, Tunisia's Ministry of Communication Technologies (MCT) is also relevant, with responsibility for overseeing the planning, control, and supervision of activities in the telecoms sector (IFC, 2012). Similarly, in Egypt, the Central Bank of Egypt (CBE) has a joint mandate with the National Telecom Regularity Authority (NTRA) over mobile money (Arab Monetary Fund, 2021a).

Figure 4.2: e-Money. Agencies with Mandate – MENA (N=12)

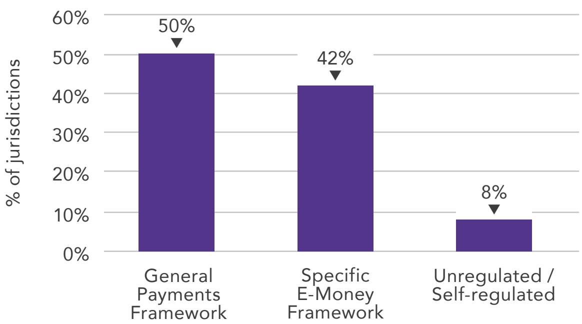


Note: N refers to the number of jurisdictions surveyed.

E-money: Regulatory framework

Divergent approaches to the regulation of e-money have been implemented across MENA. As **Figure 4.3** suggests, in 58% of sampled jurisdictions, e-money is often regulated under a general payments framework, and in 33% of sampled jurisdictions, this is covered under an e-money specific framework. The instances of sampled MENA jurisdictions with specific frameworks trail behind SSA (58% of sampled SSA jurisdictions) and are similar to APAC (30% of sampled APAC jurisdictions). Examples of MENA jurisdictions where bespoke e-money frameworks have been implemented include Djibouti, Jordan, and Palestine.

Figure 4.3: Instances of regulatory frameworks for e-money – MENA (N=12)



Note: N refers to the number of jurisdictions surveyed.

E-money: Licensing/authorisation

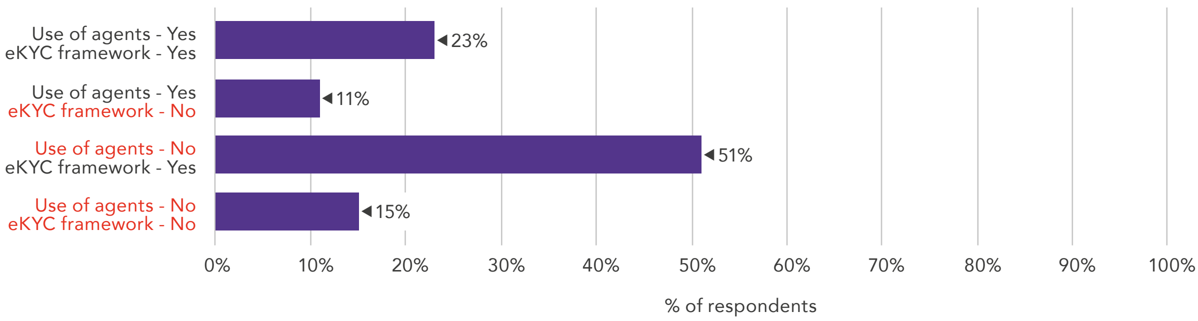
In 92% of sampled jurisdictions, issuers are required to obtain a specific licence from the relevant regulator to engage in e-money activity. However, in Bahrain issuance of e-money is not a regulated activity, and two categories of non-bank financial institutions are permitted to provide payment services. These are financing companies (conventional and Islamic) and ancillary payment service providers. These institutions are permitted to undertake retail payments as specialised licensees of the Central Bank of Bahrain (Arab Monetary Fund, 2020a; BIS, 2017). The findings also suggest that although the majority of jurisdictions in MENA permit licensing of non-banks to issue e-payments, the authorisations stipulate that traditional banks are to be the core partners required to hold deposits on behalf of non-bank service providers (Riley et al., 2020).

E-money: Use of agents

Agent oversight regulations are considered fundamental for enabling digital financial services and are a key contributor to inclusion in line with the principles adopted by the G20 Global Partnership for Financial Inclusion (GPFI, 2020). The requirements relating to the use of agents in many jurisdictions has generally been driven by a strong financial inclusion agenda. In the MENA region, Jordan is reported to have introduced the first National Financial Inclusion Strategy in the Arab region in 2015. One of the targets outlined in the strategy was to improve the regulatory oversight of DFS agents (Pamela et al., 2020). Additionally, a further indication of positive developments is a recent report on the enabling environment for financial inclusion, noting Egypt's multiple financial outlets including agents, merchants and electronic channels (Global Microscope, 2019).

The use of agents is permitted in the regulatory frameworks for e-money in a vast majority of MENA jurisdictions (90%). A further cross-regional analysis was undertaken to identify any linkages between sampled jurisdictions where the use of agents is permitted and the existence of e-KYC provisions. The findings suggest agents are less likely to be permitted in jurisdictions that have introduced e-KYC requirements (51%). This finding may be partially explained by the fact that where it is possible to undertake e-KYC, the need for agents may be diminished. In many jurisdictions where agent usage in the context of e-money is prevalent, KYC is typically one of the activities these agents undertake. At the same time, this is likely only a partial explanation, as agents do more than just conduct KYC as part of customer onboarding. GSMA, describes them as "the face of mobile services" (GSMA, 2020). Moreover, they are considered integral in enabling the conversion of cash to digital value and vice versa. They also engage in other activities, such as customer support and education (GSMA, 2020) on behalf of their principals.

Figure 4.4: e-Money: Relationship between agent permission and e-KYC provision – SSA, MENA and APAC (N=53)



Note: N refers to the number of jurisdictions surveyed.

International remittances

The use of DFS for international remittances in the MENA region is limited, in comparison to the SSA and APAC regions. A report looking at 330 FinTech companies in 22 MENA jurisdictions found that although payment companies comprised nearly 40% of FinTechs in the region, international remittances firms comprised less than 1% of these payment companies. This has been attributed to challenges encountered in many MENA jurisdictions with regard to the establishment of frameworks for interoperable payment platforms (Chehade, 2019; Pamela et al., 2020).

Additionally, it is observed that mobile payments are competing with the long-established and effective, but informal, 'Hawala' remittances system. It is suggested this may have affected the use of DFS for remittances (IMF, 2019). Hawala is a traditional informal method for the transfer of funds employed by millions of expatriates worldwide to send remittances to their families (Passas, 2005). A trust-based, unregulated process, its specificity lies in the transfer of funds without the movement of money through a network of Hawala dealers that keep informal records of transactions with end customers and settle accumulated debt amongst each other.

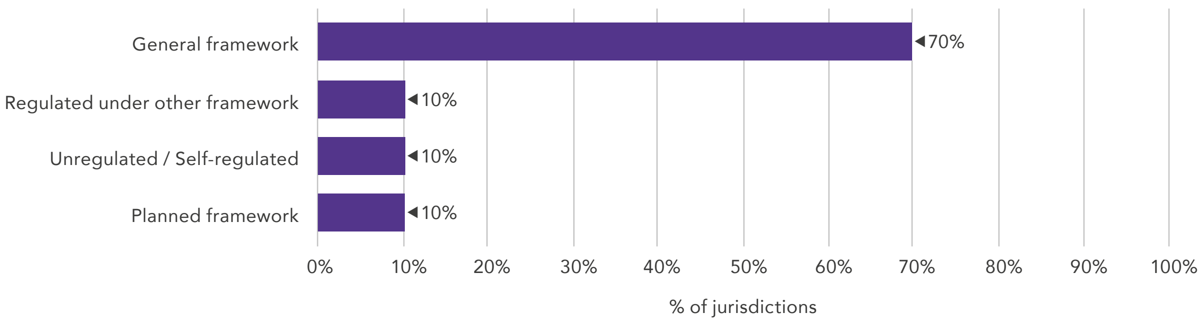
International remittances: Mandate/authority

The findings demonstrate that all the MENA jurisdictions sampled have at least one regulator with a mandate for international remittances, the most frequent being central banks (44%). Multiple regulatory authorities are also involved in 22% of jurisdictions, as in Egypt, where the Central Bank of Egypt and the Exchange Office are both involved.

International remittances: Regulatory framework

Figure 4.5 suggests that the requirements pertaining to international remittances in MENA are most commonly included within a general payments framework (70%). In 10% of instances, international remittances are regulated under other frameworks. In Morocco, for instance, an 'omnibus regulatory framework' governs the provision of international money transfer by mobile money providers, permitting them to undertake international remittances activity as part of their core mobile money business without need for a separate licence (GSMA, 2019a).

Figure 4.5: Instances of regulatory frameworks for international remittances – MENA (N=10)



Note: N refers to the number of jurisdictions surveyed.

International remittances: Licensing/ authorisation

The study also evaluated whether international remittance providers are required to obtain a specific licence from a relevant authority.

The findings indicate that 89% of the sampled MENA jurisdictions stipulate licensing/ authorisation. In comparison, 11% prescribe other requirements. In Morocco, for example, as a general requirement, international remittance providers are required to be licensed. Despite this, an exception is made under the regulatory framework that allows mobile money providers to undertake an International Money Transfer (IMT) business as part of their core mobile money business without having to obtain a separate licence (Cirasino and Nicolì, 2010; GSMA, 2019a).

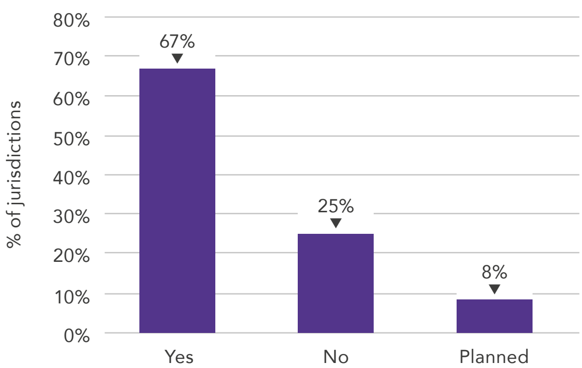
P2P lending

Globally, P2P lending is one of the most common FinTech sectors, with markets and regulations existing in all three regions reviewed, including APAC and SSA. Within the MENA region there is variation across jurisdictions in terms of P2P regulatory frameworks.

P2P lending: Mandate/authority

As shown in **Figure 4.6**, most MENA jurisdictions reviewed (67%) have a regulator or agency with a mandate for P2P lending. Further, 8% of the sampled jurisdictions are planning to establish a mandate for P2P lending. However, 25% of jurisdictions do not have a P2P mandate established as of October 2021.

Figure 4.6: P2P. Agency with mandate – MENA (N=12)



Note: N refers to the number of jurisdictions surveyed.

The MENA jurisdictions we reviewed primarily empowered securities and capital markets regulators to oversee P2P lending licensing activities and other consumer safeguards. Of the MENA jurisdictions with an established P2P regulatory framework, 63% gave securities and capital markets regulators sole licensing and regulatory authority. To a lesser extent (25%), MENA jurisdictions used central banks to oversee licensing and consumer safeguards. Notably, Egypt differed in its approach by separating P2P lending licensing authorities by financial institution type, with non-banks falling under the authority of its capital markets regulator and banks under that of the central bank.

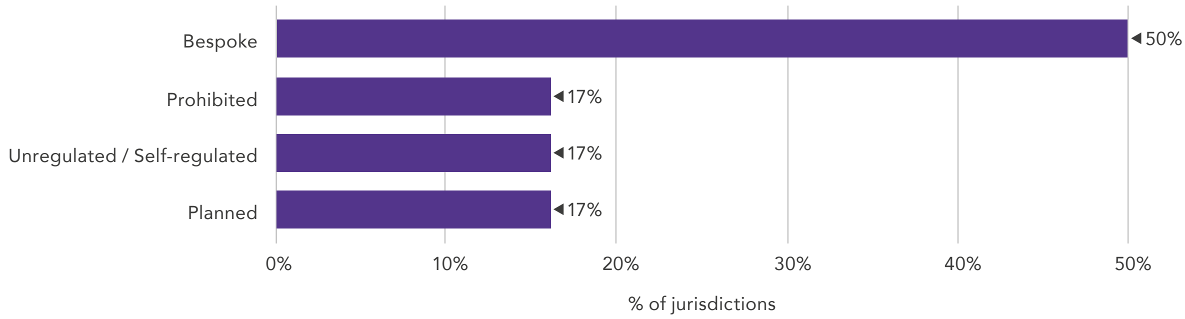
The MENA region's use of securities and capital markets regulators to administer its P2P lending licences and oversee the sector's activities differs significantly from the SSA region's approach. Within the SSA region, central banks most commonly administer P2P lending licences to companies operating in their jurisdictions. For example, 60% of the SSA jurisdictions this study sampled gave central banks sole licensing and regulatory authority, as opposed to just 25% of MENA jurisdictions. In addition, the MENA region's tendency to make use of securities and capital markets regulators within their jurisdictions' regulatory frameworks is similar to that of the APAC region, with 71% of the jurisdictions in that region giving licensing and regulatory authority to securities and capital markets regulators.

P2P lending: Regulatory frameworks

As **Figure 4.7** shows, jurisdictions in the MENA region pursued various types of regulatory frameworks for P2P lending activities, but establishing a bespoke regulatory framework was the most common approach. Half of the surveyed MENA jurisdictions established a regulatory framework for P2P lending and 17% of the jurisdictions did not have a regulatory framework for P2P lending. Further, another 17% of the jurisdictions reviewed prohibited P2P lending activities entirely.

The MENA regions' use of bespoke regulatory frameworks to regulate P2P lending is similar to the approach taken in APAC, where half of the jurisdictions we reviewed also used this approach. Further, the MENA region's approach differs significantly from the regulatory approach taken in the SSA region. For example, in the MENA region, only 17% of the jurisdictions reviewed allowed P2P lending activities to be unregulated or self-regulated; whereas, 42% of the SSA jurisdictions reviewed allowed it. Morocco and Turkey prohibit P2P activity.

Figure 4.7: P2P regulatory framework – MENA (N=12)



Note: N refers to the number of jurisdictions surveyed.

P2P lending: licensing/authorisation

Existing P2P lending regulatory frameworks established various licensing requirements. 78% of the jurisdictions in the MENA region have minimum capital requirements for companies engaged in P2P lending activities. Capital requirements in MENA jurisdictions ranged from approximately USD 8,000 to USD 5 million. Further, in the MENA region, regulatory frameworks are split on the issue of total loan volume limits for P2P lenders, with approximately 44% of the sampled jurisdictions having these limits. Existing loan volume limitations varied based by jurisdiction. For example, Israel imposed a 1 million New Israeli Shekel (approximately USD 315,000) loan limit, while the United Arab Emirates imposed a limit of 10 million UAE Dirham (approximately USD 2.7 million) per borrower

On lender requirements, a similar percent of MENA and APAC jurisdictions had minimum capital requirements. For example, as previously noted, 78% of the MENA jurisdictions reviewed had a minimum capital requirement, while 71% of APAC jurisdictions had this same requirement in their P2P regulatory frameworks.

P2P lending: consumer safeguards

While MENA jurisdictions, in general, have established specific lender requirements in their P2P lending regulations, they have not been as prescriptive for consumers engaged in the activity. For example, 70% of the jurisdictions reviewed have not established maximum borrowing amounts for consumers receiving P2P loans. However, three jurisdictions – ADGM, Saudi Arabia and UAE – do have limits on the types of consumers that can borrow from P2P lenders. For example, Saudi Arabia does not allow individual consumers to receive P2P loans but does allow small and medium enterprises to receive these loans. Lastly, in two jurisdictions in the sample – Israel and UAE – regulators imposed interest rate caps on P2P lenders.

MENA jurisdictions' regulatory frameworks for consumer safeguards were most similar to SSA jurisdictions with regards to the lack of explicit borrowing caps imposed on P2P borrowers, with 70% and 77% of jurisdictions respectively not establishing this requirement in their P2P regulatory frameworks. However, regarding the establishment of interest rate caps for P2P lenders, MENA jurisdictions resembled APAC jurisdictions, with only 22% and 20% of jurisdictions respectively establishing this consumer safeguard in their P2P lending regulatory frameworks.

Equity crowdfunding

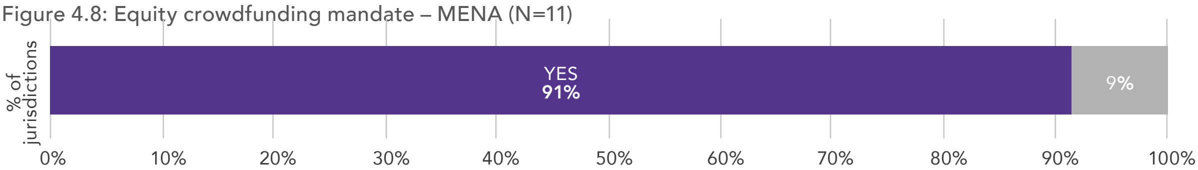
ECF is a collective term describing business models where individuals and/or institutional funders purchase equity issued by a company. ECF is typically done via an intermediary online platform that facilitates the sale of securities or 'stakes' in a business (typically an early-stage business), to sophisticated, institutional and retail investors.

ECF market activity remained consistent in 2019 and 2020, generating approximately USD 12.5 million in market activity within the MENA region over the two-year period (CCAF, 2021). Though ECF market activity only constituted approximately 2% of the MENA region's total alternative finance activity in 2020, the total amount is significantly larger than the nascent ECF market in the SSA region (CCAF, 2021b).

ECF: Mandate/authority

Figure 4.8 shows that of the 12 jurisdictions that this study identified for ECF regulatory authority, 91% of jurisdictions have existing regulatory authority to oversee ECF activities. The high percent of jurisdictions in the MENA region with regulatory authority over ECF is similar to APAC, where 88% of the jurisdictions we reviewed have the authority with a mandate to oversee ECF activities. The pervasiveness of ECF regulatory infrastructure in MENA and APAC could be a reason for the significant ECF market activity in both regions (approximately USD 12.5 million and over USD 300 million respectively in 2020), especially when contrasted with SSA, where approximately 36% of the jurisdictions this study reviewed have not established regulatory authority over ECF activities and made up a nascent ECF market of under USD 1 million in 2020.

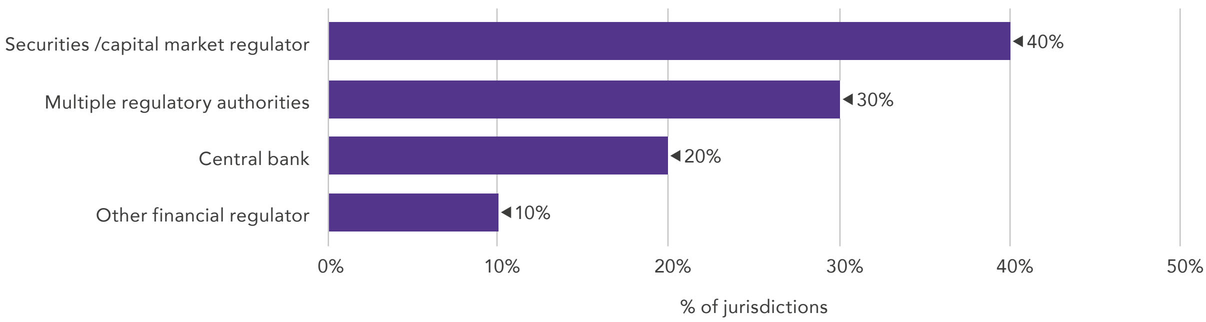
Figure 4.8: Equity crowdfunding mandate – MENA (N=11)



Note: N refers to the number of jurisdictions surveyed.

There was variation relating to the type of regulatory authority with mandate over ECF activities. As shown in **Figure 4.9**, securities/capital markets regulators most commonly oversee ECF activities (40%), which is consistent with other regions reviewed. However, some MENA jurisdictions also gave oversight authority to central banks or to a combination of securities regulators and central banks. The varied approach to which regulator or regulators oversee ECF activities differs significantly from the approach taken within APAC jurisdictions. In contrast to the MENA region, 86% of APAC jurisdictions reviewed gave regulatory authority to their securities/capital markets regulators.

Figure 4.9: Equity Crowdfunding. Agencies with Mandates – MENA (N=10)

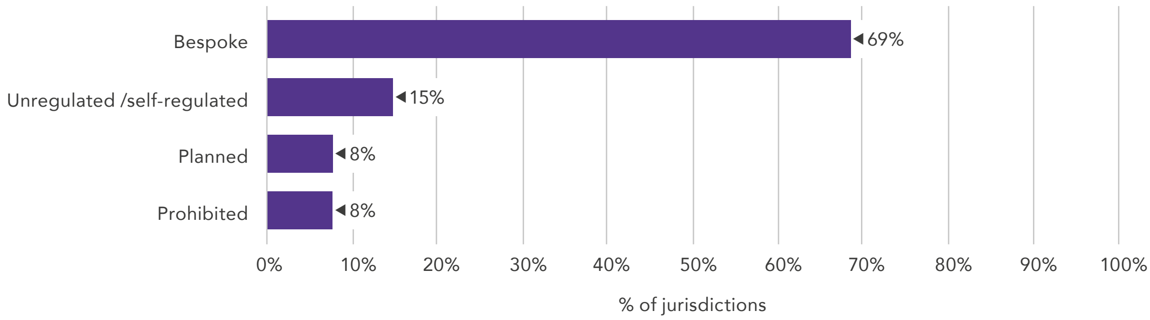


Note: N refers to the number of jurisdictions surveyed.

ECF: Regulatory frameworks

Of the 69% of sampled MENA jurisdictions with regulatory frameworks for ECF, all of them have developed bespoke regulatory frameworks for overseeing ECF activities. As shown in **Figure 4.10**, some jurisdictions opted to allow the ECF sector to remain without explicit regulations (15%) while Djibouti explicitly prohibited ECF activities (8%). The prevalence of bespoke regulatory frameworks in the MENA region is different when compared to the SSA region, where only 17% of sampled jurisdictions used bespoke regulatory frameworks to oversee ECF. However, this approach is similar to APAC, where 50% of the jurisdictions reviewed established bespoke regulatory frameworks.

Figure 4.10: Specific regulatory framework on equity crowdfunding – MENA (N=13)



Note: N refers to the number of jurisdictions surveyed.

ECF: Licensing/authorisation

In general, MENA jurisdictions we reviewed imposed licensing requirements on ECF activities. There is a limited amount of information on the licensing requirements for some jurisdictions, but there are minimum capital requirements on ECF platforms seeking a licence in six jurisdictions. Imposing these requirements was a common regulatory practice among the sampled jurisdictions in the APAC, MENA and SSA regions with established ECF frameworks.

ECF: Consumer safeguards

Specifically related to consumer safeguards, 78% of sampled MENA jurisdictions imposed limitations on the percent or amount of a retail investor's portfolio permitted to be invested in ECF activities. Further, while some jurisdictions imposed caps on the amount of money that could be invested in ECF, other jurisdictions either banned retail investors from investing in ECF or required that the investor have professional credentials to invest. For example, Abu Dhabi limited ECF investment to sophisticated retail investors or professional investors, while Bahrain banned all retail investors from using ECF (ADGM, 2018; ASAR, 2018).

5. Cross-sectoral themes

5. Cross-sectional themes

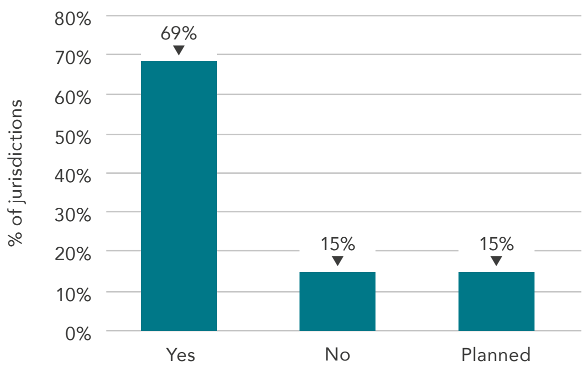
Data protection

The following section identifies the degree of data protection mandates and frameworks in selected MENA jurisdictions. Data protection is key for regulators; most of the jurisdictions in this region have data protection and privacy laws.

Data protection: Mandate/authority

The MENA-specific findings as seen in **Figure 5.1** indicate that over half (69%) of authorities in MENA have a mandate for data protection, with 15% planning to adopt one and 15% of jurisdictions having no mandate. The typology of the body with the mandate can vary, from a Data Protection Commissioner (DIFC), to a Data Protection Authority (Turkey or Bahrain), a Data Protection Centre (Egypt) or an Office of Data Protection (ADGM). The differences between regulators relies on their level of independence. For example, the Data Protection Authority of Turkey is an autonomous body, the Data Protection Centre in Egypt is under the authority of the Minister of Communications and Information Technology and the Data Protection Authority of Bahrain is under the authority of the Ministry of Justice, Islamic Affairs and Endowments.

Figure 5.1: Instances of mandate for data protection – MENA (N=13)



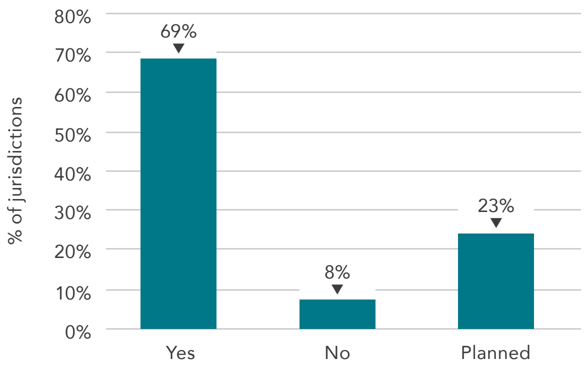
Note: N refers to the number of jurisdictions surveyed.

Data protection: Domestic frameworks

Figure 5.2 shows 69% of authorities across MENA have domestic data protection frameworks in place. They are 23% sampled jurisdictions planning a data protection domestic framework, while Palestine does not have an identified data protection domestic framework.

Bahrain was one of the first of the GCC jurisdictions to adopt a domestic data protection and data privacy regulatory framework in 2018. The Law on the Protection of Personal Data is heavily influenced by the EU 1995 Data Protection Directive (1995 Directive) and now is consistent with the EU GDPR regulation (GSMA, 2019b).

Figure 5.2: Instances of national data protection frameworks – MENA (N=13)



Note: N refers to the number of jurisdictions surveyed.

Data protection: Financial service industry

The data protection regulatory landscape in MENA demonstrates that most jurisdictions (85%) have adopted a financial services-specific data protection framework, with 15% of regulators having no framework in place. The wide-spread prevalence is indicative that the financial industry is increasingly becoming aware of the economic value of data. Many FinTech business models are supported by data driven models, and as such there is an increased need to ensure the data is secure.

The mismanagement of data can influence public perception of the market, and thus the high prevalence of financial service-specific frameworks across MENA is encouraging (GSMA, 2019b).

Cybersecurity

DFS and FinTech relies heavily on data infrastructure that can be susceptible to cyberattacks (Ehrentraud, et al., 2020). Cyberattacks may compromise business continuity and/or financial stability and cybersecurity concerns have been elevated since the onset of the COVID-19 pandemic (FATF, 2020a).

Cybersecurity: Mandate/authority

The findings of this study indicate that all jurisdictions across MENA have a mandate/authority for cybersecurity in place.

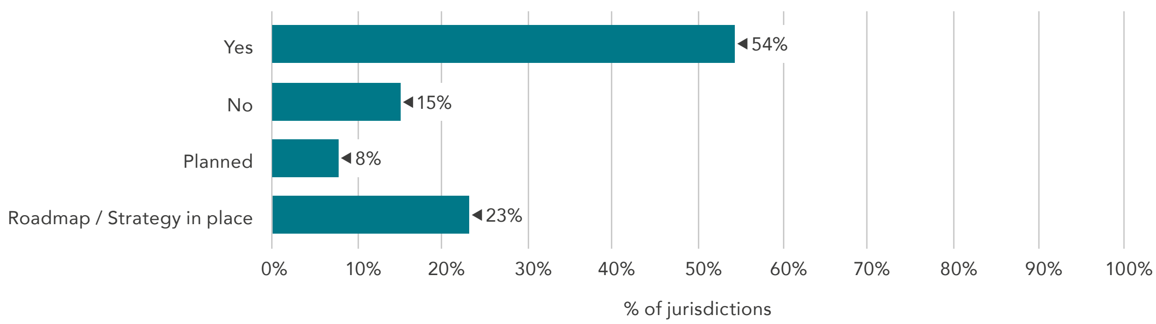
Cybersecurity: Domestic frameworks

Data relating to existing domestic cybersecurity frameworks in MENA jurisdictions shows that 92% of countries have broad domestic cybersecurity frameworks in place and 8% have roadmaps or strategies for cybersecurity. In Egypt, the Egyptian Cybersecurity Law enacted in 2018 and the Anti-Cyber and Information Technology Crimes Law constitute a broad regulatory framework for cybersecurity for the MENA region (Egyptian Supreme Cybersecurity Council, 2017). The Egyptian cybersecurity framework and the creation of the Egyptian Supreme Cybersecurity Council were both developed in line with the national cybersecurity strategy 2017-2021. The council reports directly to the Cabinet of Ministers and is chaired by the Minister of Communications and Information Technology.

Cybersecurity: Financial service industry

In terms of financial service industry cybersecurity, 54% of the sampled jurisdictions in MENA have specific cybersecurity frameworks in place, and 23% have roadmaps or a strategy in place. 8% of respondents are planning to introduce frameworks and 15% have no frameworks in place. This is illustrated in **Figure 5.3**.

Figure 5.3: The financial service industry-specific cybersecurity frameworks – MENA (N=13)



Note: N refers to the number of jurisdictions surveyed.

Cybersecurity: efforts and measures during the pandemic

Regulators introduced a range of cybersecurity measures in response to challenges related to the COVID-19 pandemic. Of the sampled MENA jurisdictions, 54% have issued cybersecurity measures during the pandemic.

Table 5.1 illustrates some examples of cybersecurity measures issued in light of COVID-19 by MENA authorities, with the majority of jurisdictions who enacted measures providing additional guidance to market participants. Israel implemented COVID-19 related cybersecurity measures not only addressing consumers but also directed to organisations (including vendors) to create a marketplace that would allow vendors "to present cybersecurity products and services on a dedicated page in the Israel National Cyber Directorate (INCD) website" (Israel National Cyber Directorate, 2021). The National Cybersecurity Authority of Saudi Arabia has established dedicated cybersecurity resources including communication channels to provide support, tips and guidance for business owners in light of the COVID-19 pandemic. Jurisdictions like the UAE have launched cybersecurity initiatives such as 'Cyber C3' to provide further guidance and safeguards to help improve consumer awareness, literacy and access to help them combat the threat of cyberattacks.

Table 5.1: Examples of COVID-19 specific cybersecurity efforts and measures

JURISDICTIONS	COVID-19 CYBERSECURITY EFFORTS	EXAMPLES OF C19 CYBERSECURITY MEASURES
Bahrain	The Central Bank of Bahrain prepared a cybersecurity risks and threats workshop given by Visa for the Chief Information Security Officers of all retail banks in the jurisdiction.	The workshop discussed remediation measures, the utilisation of VISA resources (Vital signs, eTFD and VAAI) and pressure gauge reports.
Egypt	Egypt CERT issued specific reports on cybersecurity threats in light of COVID-19.	The reports are related to a range of topics, including phishing attacks, COVID-19 themed remote access malwares and online safety and security during COVID-19.
Israel	The National Cyber Directorate has been generating phishing alerts to raise awareness.	Israel National Cyber Directorate (INCD) facilitated a "meeting ground" between organizations to resolve their COVID-19 related cyber risk, and cybersecurity vendors. This aims to create a marketplace for vendors to present cybersecurity products and services on a dedicated page in the INCD website. Furthermore, Israel's Computer Emergency Response Team has published a set of recommendations for organizations and businesses regarding secure teleworking during the COVID-19 crisis.
Saudi Arabia	The National Cybersecurity Authority issued cybersecurity tips and guidance to business owners on how to prepare during the COVID-19 crisis.	The National Cybersecurity Authority, through its cybersecurity bulletin, provided a range of documents that ensure there are tips and guidance on cybersecurity standards and controls. Further tips and guidance were issued on defining a business continuity plan, ensuring an organization's network is scalable to support the emergency needs.
UAE	The UAE undertook a range of efforts to maintain and strengthen cybersecurity through its agencies including the national Computer Emergency Response Team for the United Arab Emirates.	The "Cyber C3" initiative was launched to produce digitally literate and responsible UAE residents by certifying knowledge and understanding in a range of areas, including cybersecurity.

Open banking

Open banking refers to the process whereby banks and other traditional financial institutions give customers and third parties easy digital access to their financial data. This is often facilitated using APIs and communication protocols. Open banking has been explored in many jurisdictions as a catalyst for DFS. It can promote competition and customer choice by establishing a data sharing framework that allows third-party providers (TPPs) to enter the market. Regulators have recognised the potential of open banking to encourage the development of innovative solutions aimed at under-serviced populations.

Open banking enables TPPs to provide new products and services on top of existing financial infrastructure. Two types of TPPs are generally identified: Payment Initiation Service Providers (PISPs) and Account Information Service Providers (AISPs). PISPs are authorised to make payments on behalf of a client from their existing bank accounts, whereas AISPs pull account information and data to personalise services or provide insights.

TPPs utilise APIs to connect their services to existing financial institutions in order to pull data and push requests. In order to minimise data protection and cybersecurity risks, regulators tend to build open banking frameworks to govern the protocols by which financial institutions and TPPs share information and submit requests. These complement existing data protection and cybersecurity frameworks designed to safeguard consumer data.

Open banking: Mandate/authority

In 54% of MENA jurisdictions, the central bank has authority over open banking, followed by 15% where this role falls to the securities regulator, 8% to the banking regulator, and 23% have no mandate for open banking.

In Bahrain, the Central Bank is the main authority for open banking. To regulate the implementation of open banking within the financial services industry, it launched the Bahrain Open Banking Framework (CBB, 2020). It announced a two-phase roll-out in December 2018 and mandated that the banks comply with the framework within six months. The initial phase covered general licensing provisions for AISPs and PISPs and outlined the technical requirements to which they should adhere. The second phase, set to be implemented by all participants in June 2022, lists the types of data financial institutions should make available including, but not limited to, ATM and branch locations as well as data relating to domestic and international payments, such as standing orders and batch payments.

The UAE Central Bank has adopted a 'watch and learn' approach to open banking by introducing guidelines on payment initiation and account information services as part of the Retail Payment Services and Card Scheme Framework (CBUAE, 2021). Financial institutions and FinTech firms have been left to pursue strategic initiatives on their own accord. The UAE's international financial centers opted for a different approach. ADGM launched a TPP framework that goes beyond the scope of open banking and into the realm of open finance, providing reference points relating to data for all types of financial information. In contrast, the DIFC chose to remain focused on providing guidelines for PISPs and money services. Saudi Arabia, which originally chose to follow a market-driven approach, has since put in place plans to mandate open banking and intends to roll out AISP regulation in 2022, and PISP in 2023 following a phased approached with its banks (Saudi Central Bank, 2021).

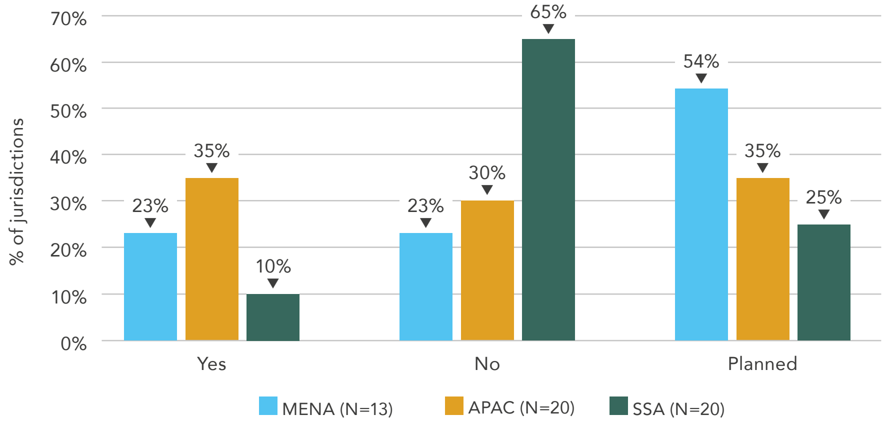
Open banking: Domestic frameworks

The approach taken by jurisdictions toward open banking remains fragmented across the MENA region, varying widely between regulation-driven mandates and market-driven guidelines. Local considerations have widely impacted the approaches taken by regulators. For example, while Egypt encourages increased competition in the financial services industry for financial inclusion purposes, UAE and Bahrain consider it less of a priority as they are generally considered "overbanked" markets, with a high number of retail banks (Arab Monetary Fund, 2020b).

The appetite for introducing open banking in the MENA region tends to correlate with the World Bank's classification of jurisdictions by income level. More than half of our surveyed jurisdictions (60%) who fall in the 'lower to middle' income bracket have no open banking frameworks in place. Meanwhile, all of the jurisdictions in the 'upper middle' and 'high' income brackets either have an existing or planned open banking framework. This may reflect both reduced market demand for open banking in lower to middle income jurisdictions, and possibly that regulators in lower to middle income jurisdictions have limited resources and capacity to build and implement open banking frameworks.

As indicated in **Figure 5.4**, 23% of the sampled MENA jurisdictions have an open banking framework, while the majority of jurisdictions (54%) are planning to introduce a framework for open banking, and 23% of jurisdictions have no framework in place.

Figure 5.4: Open banking frameworks – MENA, SSA, APAC (N=53)



Note: N refers to the number of jurisdictions surveyed.

The MENA region is not the leading region in existing open banking frameworks, with only 23% of surveyed jurisdictions having implemented one compared to 35% in the APAC region. It does, however, lead the way in planned frameworks, with 54% of the sampled regulators planning to introduce an open banking framework in the future. The figures for planned open banking frameworks in APAC and SSA are 35% and 25% respectively.

Table 5.2 provides an overview of MENA jurisdictions that have an open banking framework in place or are planning to introduce an open banking framework. The table also considers examples of other policy enablers such as data protection and cybersecurity to further support the development of FinTech activities and the use of enabling technologies for open banking.

Table 5.2: Existing and forthcoming open banking frameworks – MENA

	OPEN BANKING FRAMEWORK IN PLACE	PLANNED OPEN BANKING FRAMEWORK	FINANCIAL SERVICE INDUSTRY DATA PROTECTION FRAMEWORK IN PLACE	FINANCIAL SERVICE INDUSTRY CYBERSECURITY FRAMEWORK IN PLACE
Bahrain	✔		✔	✔
Israel	✔		✔	✔
Turkey	✔		✔	✔
Jordan		✔	✔	✔
Saudi Arabia		✔	✔	✔
Morocco		✔	✔	✔
Abu Dhabi Global Market		✔	✔	
Dubai IFC		✔	✔	
Egypt		✔	✔	
United Arab Emirates		✔	✔	

Note: The data was collected through publicly available information.

Regarding the ten jurisdictions that have or are planning to pursue open banking, an overlap exists with how these regimes have approached the issues of data protection and cybersecurity. Of the three respondents that currently have an open banking initiative (Bahrain, Israel and Turkey), we note that all have implemented specific financial service data protection rules as well as financial sector-specific cybersecurity standards.

When considering the seven jurisdictions that are planning an open banking framework, three have both financial service industry data protection rules and cybersecurity frameworks in place, and the other four have issued financial service industry data protection frameworks.

Financial consumer protection (FCP)

Financial consumer protection (FCP) encompasses the laws, regulations and institutions that ensure the safety of consumers in their use of financial services and products. An effective FCP regime can ensure that customers of financial products and services can make well informed decisions, protecting the development of financial services, and supporting the wider aims of financial stability, financial integrity and financial inclusion (World Bank, 2017a).

Regulators face the challenge of effectively ensuring consumer protection in an increasingly digital financial services marketplace. Consumer protection is a key mandate for regulators around the world and is identified as an increasing concern in relation to FinTech in light of COVID-19, as seen in **Figure 2.2**.

FCP: Mandate/authority

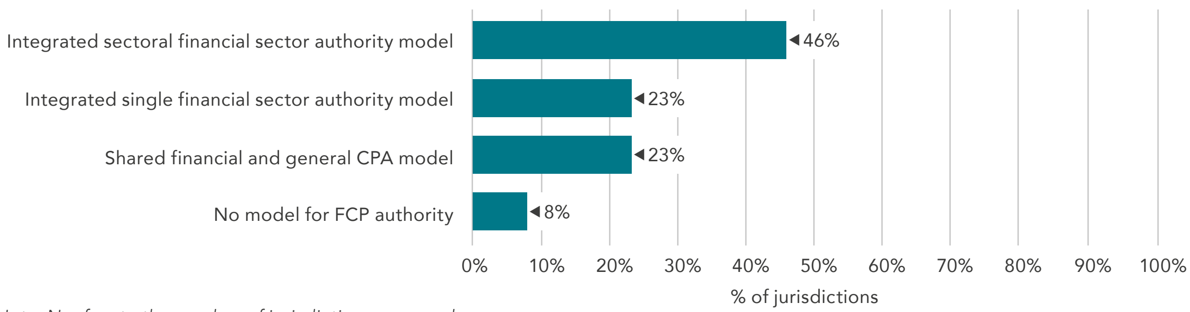
There are many models of institutional arrangements for FCP. To map the types of institutional arrangements that pertain to FCP, we followed the nomenclature of the World Bank FCP survey (World Bank, 2017b). The World Bank classifies the differing regulatory arrangements as follows:

- **Integrated Single Financial Sector Authority Model:** Where FCP supervision responsibilities fall under a single financial sector authority that is responsible for all aspects of supervision of all financial product or service providers.
- **Integrated Sectoral Financial Sector Authority Model:** Where FCP supervision responsibilities fall under multiple financial sector authorities, each responsible for all aspects of supervision of financial service providers operating within specific financial sectors.
- **Dedicated FCP Authority Model:** Where FCP supervision responsibilities fall under a single authority primarily dedicated to FCP, or market conduct more broadly.
- **Shared Financial Sector and General Consumer Protection Authority Model:** Where one or more financial sector authorities and one or more general consumer protection authorities share FCP supervision responsibilities.
- **General Consumer Protection Authority Model:** Where financial consumer supervision responsibilities fall under one or more authorities responsible for general consumer protection supervision within the jurisdiction.

The classification of our chosen MENA jurisdictions, as presented in **Figure 5.5**, indicates that just under half (46%) of the sampled jurisdictions use an Integrated Sectoral Financial Sector Authority Model where FCP in all its forms is provided by the regulator over the specific financial sectors within their remit. Moreover, it is notable that in some jurisdictions, such as Bahrain, FCP is seen as part of the remit of a government department or ministry rather than that of the market regulators.

The second most popular model is the Integrated Single Financial Sector Authority Model (23%) – where a regulator can oversee all aspects of consumer protection across the entire financial sector – alongside the Shared Financial and General Consumer Protection Authority Model (also with 23%).

Figure 5.5: Models of authority over consumer protection – MENA (N = 13)



Note: N refers to the number of jurisdictions surveyed.

The G20/OECD high-level principles also state that authorities need clear responsibility and the authority to fulfil their mandate in the financial markets which they regulate. Hence there is some concern that in jurisdictions with no explicit FCP authority (8% of those sampled), or where the responsibility is shared (23% of jurisdictions), the authorities may not have the necessary clarity with regards to their roles (World Bank, 2017a). This is important for FinTech where the business proposition cuts across several regulators.

FCP: Domestic frameworks

There are frameworks for FCP in all but one of the sampled jurisdictions in the MENA region. Israel and Morocco have general consumer protection laws with a set of explicit provisions regarding financial services. Others, such as Bahrain have consumer protection provisions within the financial sector legal framework, alongside a more general consumer protection law.

The World Bank considers that effective FCP requires "a clear legal framework that establishes an effective regime for the protection of consumers of retail deposit and credit products and services" (World Bank, 2017a, p.25). However, this review finds examples of jurisdictions in the MENA sample without exclusive FCP provisions in their legal framework.

FCP: Measures in response to COVID-19

The global response to COVID-19 from a regulatory perspective led to many jurisdictions introducing new measures, including measures that relate to consumer protection. When comparing MENA to SSA and APAC, 64% of surveyed jurisdictions in the MENA region increased consumer protection measures in response to the COVID-19 pandemic. This is higher than in SSA (45%) and similar to APAC (61%). The emphasis was on disseminating information to the public and firms related to increased scamming and fraud risks. Other jurisdictions, both in MENA and elsewhere, enacted liquidity and financial stability measures which impacted the ability of market participants to access their funds.

Some specific examples of FCP measures from the surveyed jurisdictions are presented in Table 5.3.

Table 5.3: Examples of FCP measures taken by MENA regulators in response to COVID-19

JURISDICTIONS	COVID-19 CONSUMER PROTECTION EFFORTS	EXAMPLES OF COVID-19 CONSUMER PROTECTION MEASURES
UAE	Enacting additional legislation to minimise emerging risks.	Issuance of Federal Law No. 15/2020 on Consumer Protection. The new statute has extensive provisions on the protection of consumer data and provides for additional obligations on e-commerce providers.
Palestine	Undergoing transition to an electronic clearance system in the banking system with highlights of new features on payment and settlements systems.	The Palestine Monetary Authority introduced new measures under a revised electronic clearance system beginning early 2021: 1. Structuring Facilities: the possibility of rearranging and structuring existing facilities free of fees, and with a limit on interest rates or contractual profit. 2. Scheduling Facilities: the possibility of scheduling existing facilities without any commissions or fees, with borrowers exempted from the down payment. 3. Structuring Ijara: The possibility of deferring the instalments granted in the form of Ijara muntahia bitamleek (lease and ownership) . 4. Istidama (Sustainability) program that emphasizes bank needs to receive credit applications for the Sustainability Program including the provision of funding for projects affected by COVID-19 crisis and enabling them to restore activity and maintain employment.
Israel	Creating a mechanism between regulators and supervised entities to manage COVID -19 pandemic risks and challenges.	The Bank of Israel designated teams to provide 24/7 support to supervised entities and ease of any increased issues as a result of the pandemic.

Anti-money laundering (AML) and electronic-know your customer (e-KYC)

Money laundering (ML) and terrorist financing (TF) are key concerns of regulators in an increasingly globalised world. As a result, there is both increasing interest – and increasing pressure – for AML and CFT regulations. Both ML and TF undermine financial sector stability, while at the same time enabling crime and corruption, which have direct implications on the economy and society. The introduction of technology can affect patterns of behaviour in ML and TF. On one hand, the proliferation of providers of financial products, along with the reduction of time and effort to move funds, can increase the ability to initiate ML and TF. On the other hand, technology has been effectively used to reduce the ability of criminal activity and the costs of supervising ML and TF. The existence of both domestic and international financial centres in the MENA region can enhance the need for cooperation and coordination across many agencies entrusted with AML and CFT.

Technology can also lead to the simplification of costly processes, enabling the proliferation of FinTech and DFS by digitalising customer onboarding and the monitoring of activity. One such process that can reduce costs is e-KYC, which refers to the digital verification of clients.

To reduce the risk of ML and TF, regulators put in place key information requirements that market providers must request of their clients as part of their due diligence process. That information is then routinely updated and made available to the relevant authorities. The KYC checks ensure that the market provider is confident with regards to the identity of the client and their risk profile.

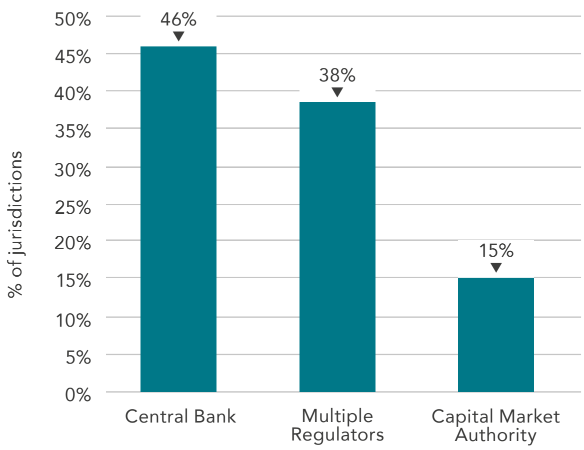
The COVID-19 pandemic led to increased risks in relation to ML and TF (FATF, 2020a). An increase in COVID-19 related crimes was noted, with fraud, cybercrime and expropriation of government or international financial assistance, most frequently cited, thus creating new sources of proceeds for illicit actors. Simultaneously, the pandemic negatively impacted the ability of regulators and the private sector to implement AML/CFT obligations, such as reducing their ability to undertake onsite inspections. One of the key concerns raised by the FATF is the ability of criminals to bypass CDD measures, leading to recommendations regarding the use of technology to enhance AML checks and close potential gaps.

AML: Mandate/authority

As AML/CFT compliance covers a range of sectors, including non-financial sectors, it is often the case that that authority to regulate AML/CFT in financial services is additionally held by non-financial agencies, as is the case in the MENA region. This is evident in the region, where often there are multiple authorities with an AML/CFT mandate.

Although central banks often serve as the main regulators for AML/CFT, as seen in **Figure 5.6**, there is a significant number of sampled MENA jurisdictions (38%) in which multiple authorities hold a mandate for AML/CFT.

Figure 5.6: Main regulators for AML in financial services – MENA (N=12)



Note: N refers to the number of jurisdictions surveyed.

AML: Domestic frameworks

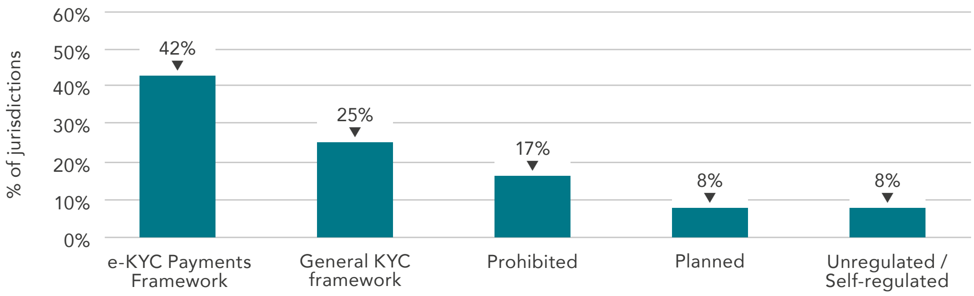
All surveyed jurisdictions in MENA have an AML/CFT framework in place that defines the illegal activity of ML/TF and provides regulators with the authority to supervise economic activity to ensure illegal activity does not take place. It is notable, however, that the region can often have substantial complexity when it comes to AML mandates and regulatory authorities, with the UAE having a federal structure, seven emirates, two financial free zones and 29 economic free zones (FATF, 2020b).

The first line of defence for AML/CFT is customer due diligence which seeks to identify and verify the customer, along with the ultimate beneficial owner, and undertake a risk assessment of that individual or entity. The KYC process, which takes place during the onboarding of a client has traditionally been manual, requiring verification in person. However, ensuring that this process can take place digitally (e-KYC) is a driver of innovation, both reducing the cost of onboarding and being just as effective at managing risks related to identity fraud.

Market participants consider that enabling e-KYC is instrumental to further developing DFS. Some FinTech firms consider the lack of clearly defined e-KYC frameworks by jurisdictions as a key stumbling block to their growth and ability to scale (CGAP, 2019a). Lockdowns and the shift to remote working during the pandemic has increased the need for clear e-KYC guidelines. This desire for a clear e-KYC process is shared by FinTech firms in MENA, as **Figure 7.6** indicates. In a CCAF survey of 45 market participants in the MENA region, 33% indicated that more regulatory support for e-KYC processes was something that they "urgently needed" (CCAF, WEF, and World Bank, 2020).

In MENA, 42% of jurisdictions have an e-KYC specific framework, and a further 25% of jurisdictions allow some form of e-KYC within their existing KYC framework, followed by an additional 8% planning to introduce specific frameworks. This is comparable to APAC (22% specific framework, 44% general KYC framework), but higher than SSA (5% specific framework, 47% general KYC framework). In 8% of jurisdictions there is no e-KYC regulation.

Figure 5.7: Types of regulatory framework in relation to e-KYC – MENA (N=12)

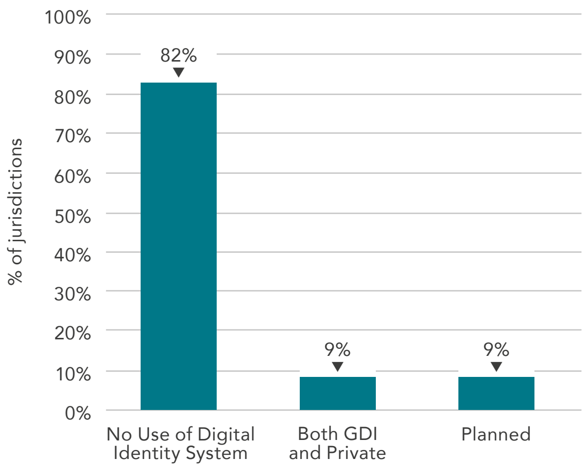


Note: N refers to the number of jurisdictions surveyed.

AML and e-KYC: Digital identity systems

The use of electronic verification and identification often requires a collaboration between financial service providers and government entities to access public databases. In MENA, such collaboration systems are shown in **Figure 5.8**. For example, Bahrain's Electronic Network for Financial Transactions (BENEFIT) is implementing a national KYC strategy that incorporates blockchain technology. In 2019, the Bahrain Central Bank mandated all banks and licensed institutions to participate in the national e-KYC project, providing them access to a national digital identity database in order to securely verify the identities of their customers, validate their information and share data digitally before providing products and services. With the introduction of open banking in Bahrain, this also provides an opportunity for FinTech companies to verify customers' identities through their online and mobile applications. The case studies on Egypt and Jordan in Chapter 9 and 10 further highlight regional approaches to e-KYC.

Figure 5.8: Types of digital identity systems used in e-KYC – MENA (N=11)



Note: N refers to the number of jurisdictions surveyed.

6. Regulatory innovation initiatives in MENA

6. Regulatory innovation initiatives in MENA

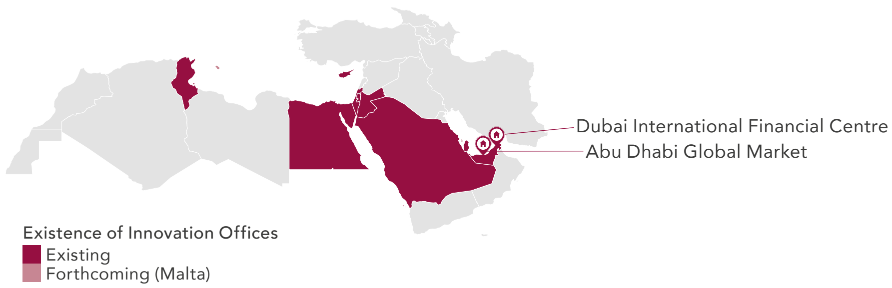
Regulators around the world have responded to the challenge of balancing the benefits and risks of technology-enabled financial innovation and the increasing digitalisation of the global economy through regulatory innovation initiatives. These regulatory innovation initiatives include innovation offices, regulatory sandboxes, and RegTech/SupTech programmes. This chapter sets out the current state of regulatory innovation initiatives across the MENA region.

Innovation offices in MENA

An innovation office is a dedicated function within a regulator which engages with and provides regulatory clarification to innovative financial services providers. This can help reduce regulatory uncertainty by providing a channel for innovators to engage in dialogue with regulators to better understand regulatory frameworks and their requirements.

Figure 6.1 illustrates that there are currently twelve jurisdictions with at least one innovation office in MENA, and a further one planned. A study in 2019 identified five innovation offices in MENA (CCAF and UNSGSA, 2019). This represents a significant increase over the past two years.

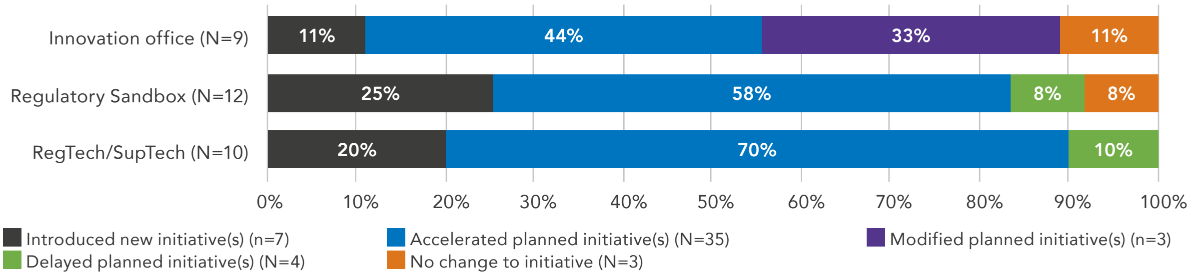
Figure 6.1: Innovation Offices – MENA[4]



The increasing prevalence of innovation offices seems likely to continue, with 44% of respondents in MENA indicating that the COVID-19 pandemic has accelerated their planned innovation office initiatives (CCAF, WEF and World Bank, 2020), as can be seen in **Figure 6.2**. This is in addition to the 11% of surveyed regulatory authorities who reported introducing an innovation office during the pandemic. However, it should be noted that 33% of respondents reported that COVID-19 resulted in a modification to their planned innovation office.

4 The jurisdictions with innovation offices in MENA are: Abu Dhabi Global Market, Bahrain, Cyprus, Dubai IFC, Egypt, Israel, Jordan, Palestine, Qatar, Saudi Arabia, Tunisia, United Arab Emirates.

Figure 6.2: The impact of COVID-19 on regulatory initiatives – MENA



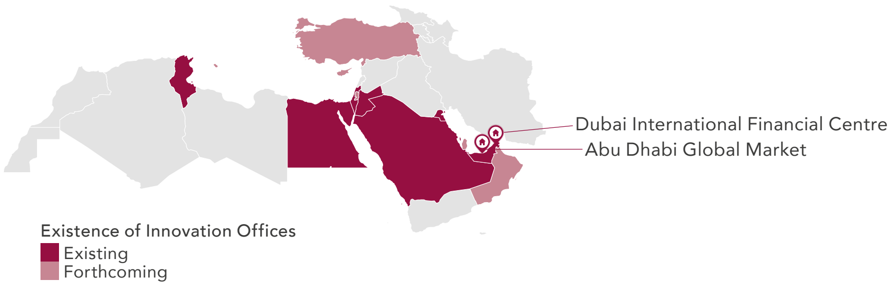
Note: N refers to the number of regulators who responded across the MENA region and not just those from the sampled jurisdictions.
Source: (CCAF, WEF and World Bank, 2020).

Regulatory sandboxes in MENA

Regulatory sandboxes are formal regulatory programmes that allow market participants to test new financial services or models with live customers, subject to certain safeguards and oversight. Regulatory sandboxes might take different forms, including digital or virtual models.

Figure 6.3 illustrates that there has been rapid growth in regulatory sandboxes. The findings identified eleven jurisdictions with at least one regulatory sandbox, with a further five planned.

Figure 6.3: Regulatory sandboxes – MENA[5]



As in the case of innovation offices, there has been a substantial increase in regulatory sandboxes over the last two years. In 2019, just four regulatory sandboxes were identified as operational in MENA (CCAF and UNSGSA, 2019).

The COVID-19 pandemic appears to have played a catalytic role in the establishment of regulatory sandboxes in MENA. As illustrated in **Figure 6.2**, which represents a survey of regulators across MENA and not just the sampled jurisdictions, 14% of respondents introduced a regulatory sandbox during the pandemic, with 29% accelerating a regulatory sandbox initiative during this period. Only one in five respondents (19%) reported a delay to a regulatory sandbox initiative due to the COVID-19 pandemic.

RegTech and SupTech initiatives in MENA

The use of technology to aid market participants in complying with regulatory requirements, as well as the use of supportive technology by regulators, is increasing globally. The terms 'RegTech' and 'SupTech' are subject to several definitions by both financial regulators and

5 The jurisdictions with at least one regulatory sandbox are: Abu Dhabi Global Market, Bahrain, Dubai IFC, Egypt, Israel, Jordan, Kuwait, Malta, Saudi Arabia, Tunisia, United Arab Emirates.

the wider financial industry.[6] For the purposes of this study, these terms are used to refer to the use of technology *by regulators*. SupTech refers to the use of innovative technologies by regulators to tackle regulatory or supervisory challenges. It is a subset of RegTech, which includes any use of technology to match structured and unstructured data to information taxonomies or decision rules that are meaningful to both regulators and regulated entities, in order to automate compliance or oversight processes. The two terms are used interchangeably in this study given their varying usage by regulators, and the potential for commonly adopted definitions, standards and protocols between both.

Figure 6.4 illustrates that there are nine jurisdictions in the MENA region with at least one active RegTech or SupTech initiative. A further ten jurisdictions have indicators of a potential RegTech/SupTech initiative(s) forthcoming. Significantly, RegTech and SupTech initiatives have also become increasingly prevalent in the last two years – CCAF and UNSGSA did not identify any RegTech initiatives in MENA in 2019.

Figure 6.4: RegTech / SupTech initiatives - MENA[7]

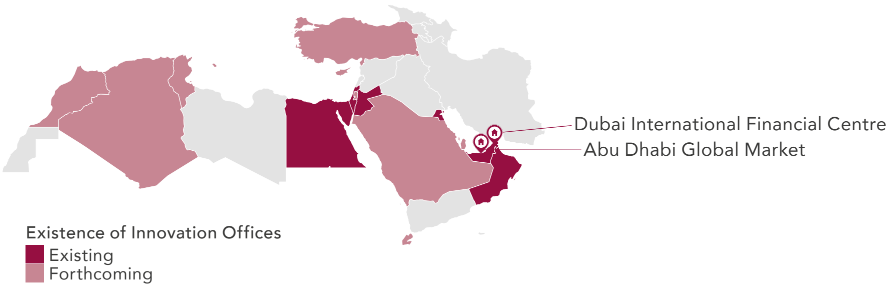


Figure 6.2 further illustrates that the COVID-19 pandemic is associated with regulators actively looking to introduce RegTech/SupTech solutions to face regulatory challenges. The findings suggest that regulators in MENA have shown a significant interest in accelerating digital infrastructure initiatives, with 94% reporting having accelerated planned initiatives.

Some examples of current RegTech/SupTech initiatives demonstrate the wide variety of ways technology can be applied to regulation. Spurred by industry dialogue, regulators have taken steps to decrease the regulatory burden of licensing FinTech by digitising their authorisation pathways. The Central Bank of Bahrain is investing in a large-scale automation project that will see the majority of its services and interactions with regulated firms transition to an automated system (SCA, 2020).

In other instances, regulators have increasingly explored SupTech solutions to modernise their own supervisory processes, aware that manual reporting mechanisms can be exploited by unscrupulous actors to cover up the mismanagement client funds. One such initiative underway by the ADGM FSRA is a client money monitoring solution that would allow the FSRA to independently obtain balance information via API calls from licensed firms' bank accounts, automatically flagging discrepancies in near real-time (ADGM, 2021).

Finally, SupTech is also currently being tested as a means of harmonising regulatory standards across jurisdictions. As part of the GFIN cross-border testing initiative, the CBB, the CBUAE and ADGM are collaborating with other jurisdictions to trial regulatory reporting standards for sustainability-related data in financial markets (Global Financial Innovation Network, 2021b).

6 By way of examples see: CCAF and UNSGSA FinTech Working Group (2019). *Early Lessons on Regulatory Innovations to Enable Inclusive FinTech: Innovation Offices, Regulatory Sandboxes, and RegTech.* Office of the UNSGSA and CCAF: New York, NY and Cambridge, UK; Financial Stability Board (2020), *The Use of Supervisory and Regulatory Technology by Authorities and Regulated Institutions; Di Castri et al (2018) Financial Authorities in the Era of Data Abundance: Regtech for Regulators and Suptech Solutions.*

7 The jurisdictions with at least one RegTech/SupTech initiative, based on publicly available information are: Abu Dhabi Global Market, Dubai IFC, Egypt, Israel, Jordan, Kuwait, Oman, Saudi Arabia, United Arab Emirates.

7. Identifying gaps, and understanding challenges in MENA

7. Identifying gaps and understanding challenges in MENA

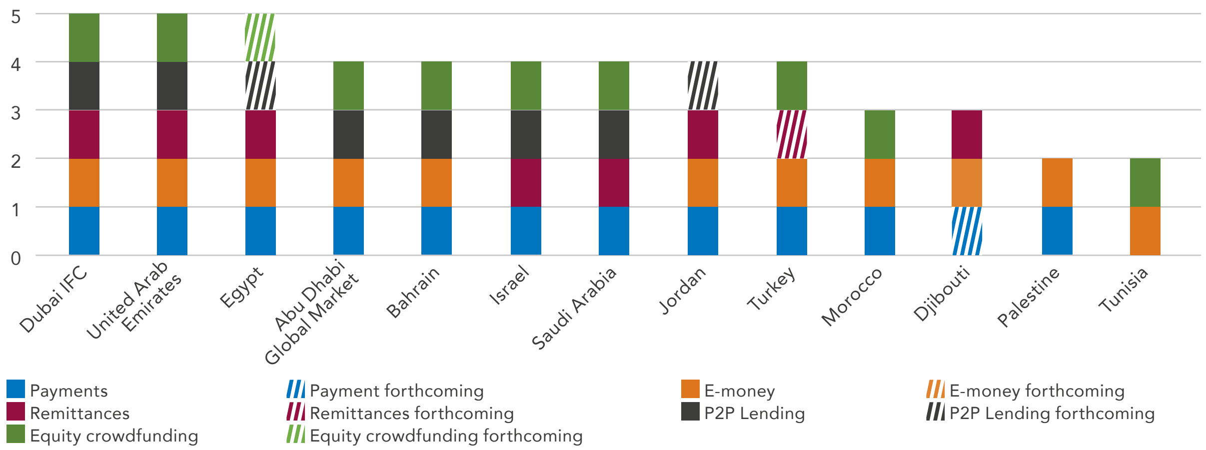
As outlined in **Chapters 4, 5 and 6**, regulatory responses to FinTech in MENA are diverse. The following chapter seeks to explore this variation in more detail and suggests some of the impacts that divergent approaches have on the FinTech market, as well as some of the factors that could explain the broader regional landscape in MENA.

The existence of regulatory frameworks and regulatory innovation initiatives is uneven

Provision of frameworks for FinTech verticals

Figure 7.1 presents a jurisdiction-by-jurisdiction view of the prevalence of regulatory frameworks across the FinTech verticals considered in this study. It is important to note that this figure does not seek to 'rank' or 'score' different jurisdictions in their approach to regulating FinTech, but instead to show the range of approaches to regulating FinTech within the region.

Figure 7.1: Regulatory frameworks in sampled MENA jurisdictions

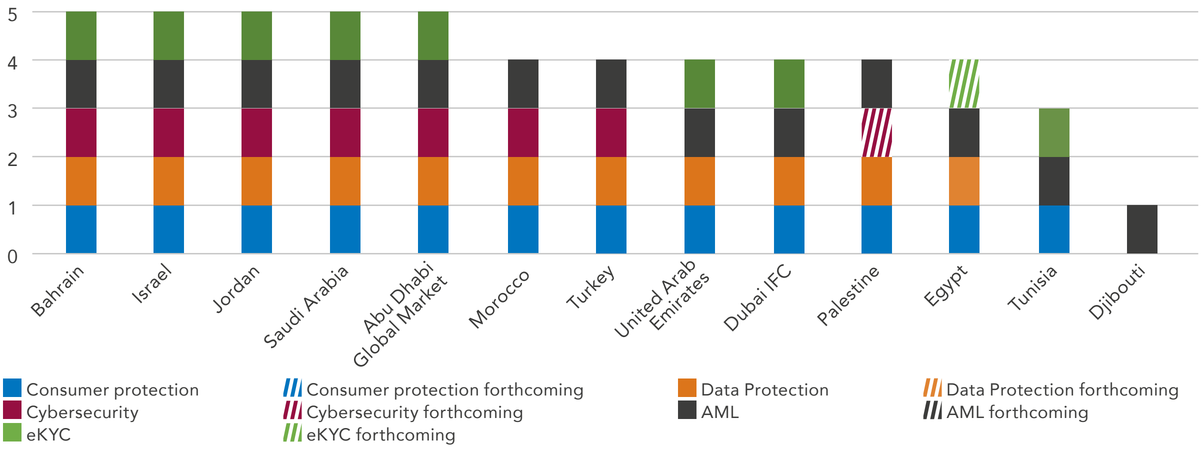


Note: We identify any regulatory framework in place (either general or specific) as a positive answer. Information accurate at the time of research completion

As we see in **Figure 7.1**, payments, e-money and equity crowdfunding have the largest coverage, with general or specific frameworks for these verticals existing in nine jurisdictions. The lack of frameworks for P2P lending is evident, appearing in just six jurisdictions – although two further jurisdictions are planning to introduce a framework. In total, four jurisdictions are planning to introduce a further five frameworks across a variety of FinTech verticals.

Similarly, there is some variation of cross-cutting regulatory frameworks in MENA, as shown in **Figure 7.2**. As with the analysis of regulatory frameworks above, this is not an attempt to rank jurisdictions but to showcase the wide range of different approaches within MENA.

Figure 7.2: Cross-cutting regulatory frameworks in sampled MENA jurisdictions



Note: We identify if there is a strategy or directive as well as regulation as a positive answer. Information accurate at the time of research completion.

The cross-sectoral approaches in MENA vary. An AML framework is the only constant, present in all 13 jurisdictions. Financial sector data protection and financial consumer protection frameworks follow closely behind, appearing in 11 and 10 jurisdictions respectively. The prevalence of regulatory frameworks across these verticals highlights their importance to regional regulators. Financial sector cybersecurity lags behind, with frameworks in only seven jurisdictions. Of the jurisdictions we reviewed, ADGM, Bahrain, Jordan, Saudi Arabia and Israel have frameworks in place for all the investigated cross-sectoral issues.

It is positive that in most jurisdictions sampled, as shown in **Figure 7.2**, there are frameworks in place for AML, financial consumer protection and financial sector data protection. This is likely to aid development of FinTech in MENA. However, greater effort is needed to ensure cybersecurity and e-KYC frameworks are put in place to enable a broader dissemination of financial sector opportunities to firms and their customers. Such cross-cutting frameworks can often be catalytic in the efforts of regulators in achieving their objectives. It is important to note however that cross-sectoral frameworks are often not under the remit of one regulator/stakeholder and hence change often requires coordination.

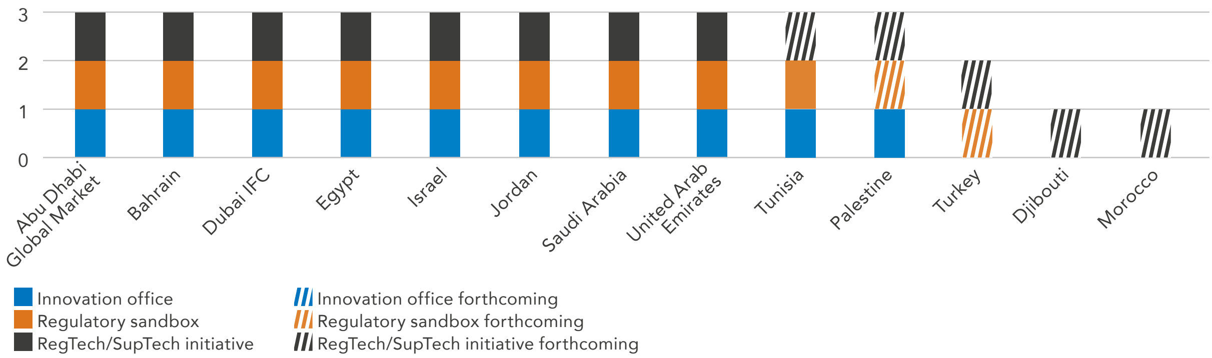
It is also worthwhile to note the existence of frameworks across jurisdictions differs based on income per capita levels as defined by the World Bank. In open banking, for example, more than half of our surveyed jurisdictions (60%) who fall in the 'lower to middle' income bracket have no open banking frameworks in place. Meanwhile, all of the countries in the 'upper middle' and 'high' income brackets either have an existing or planned open banking framework. Although income levels are only one of the factors that might explain the variation in existing frameworks, it is notable that this distinction is more pronounced in the MENA sample as compared to the sampled SSA jurisdictions.

The absence of frameworks does not necessarily mean the absence of FinTech market activity. Yet, the absence of regulatory frameworks can lead to FinTech market participants operating within uncertain conditions, while important issues of financial conduct and consumer protection might be overlooked. Ensuring there is an effective framework can reduce regulatory uncertainty within the market, and provide more comprehensive regulatory oversight.

Regulatory innovation initiatives

Chapter 6 above analyses the development of regulatory innovation initiatives across MENA in detail. As seen in **Figure 6.2**, COVID-19 seems to have accelerated these efforts, with seven regulators from the region introducing new initiatives and regulators are accelerating planned initiatives. **Figure 7.3** provides a jurisdiction-by-jurisdiction view of the regulatory innovation initiatives within our sample. Note that **Figure 7.3** looks at just the sampled jurisdictions, and not the totality of MENA as in Chapter 6.

Figure 7.3: Regulatory innovation initiatives in sampled MENA jurisdictions



Note: Information accurate at the time of research completion.

As we see in **Figure 7.3**, innovation offices are the most common initiative, currently appearing in 10 jurisdictions. Regulatory sandboxes are in place across nine jurisdictions, with another two forthcoming. Though RegTech/SupTech initiatives are currently in place in only eight jurisdictions, there are a further five forthcoming.

Regulatory innovation initiatives can be a driver for the growth and development of FinTech within a jurisdiction, creating an environment more conducive to innovation and increasing access to the regulator. The sizeable presence of these initiatives across MENA, both in place and forthcoming is encouraging, and these efforts should continue to be supported and expanded.

Frameworks and the FinTech market

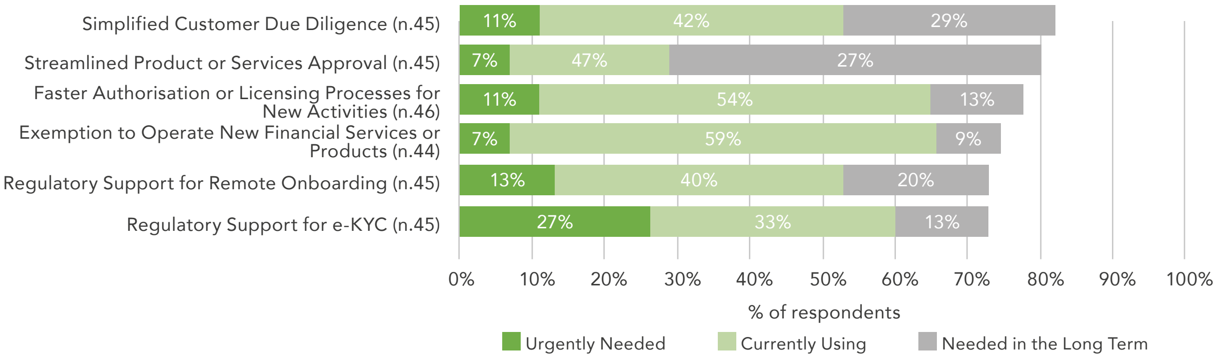
The relationship between market activity and the provision of regulatory frameworks is likely to be complex and non-linear. This section assesses the links between regulatory frameworks and market development, specifically for P2P lending and ECF, using data from the latest CCAF report on alternative lending (CCAF, 2021b).

In the MENA region, there is some evidence that market maturity is correlated with the existence of a regulatory framework. For example, in P2P lending, the two largest markets in 2020 – Israel (USD $445 million) and UAE (USD $62 million) have established bespoke P2P frameworks (CCAF, 2021b). Israel, which has a bespoke ECF framework, is also the region's largest ECF market.

The study acknowledges there are many factors that affect the development of financial markets and that there is limited causality in the MENA region on the leading markets in P2P and ECF and bespoke regulatory frameworks. The existence of regulatory frameworks might not lead to an increase in the market of that particular FinTech vertical, yet, regulatory clarity through the creation of frameworks is likely to be welcomed by market participants themselves.

The relationship between regulators and market participants remains a balancing act between the consumer protection priorities of one and the operational capacities of the other. **Figure 7.4** illustrates that market participants most desire regulatory exemptions to operate new financial products and services (59%) followed by faster authorisation and licensing processes of new products (54%). Regulators have responded favourably to the market with initiatives which could help facilitate market demands, for example, the eleven regulatory sandboxes in place is a considerable improvement from only four in 2019. However, regulatory sandboxes that provide temporary exemptions to licensing requirements, can only be an interim measure prior to either updating existing frameworks or introducing bespoke frameworks. As the market matures, faster licensing processes go hand-in-hand with robust regulatory frameworks in line with industry realities.

Figure 7.4: Market responses on regulatory responses and innovation initiatives – MENA



Note: This is based on a survey of market participants and hence the N is the number of FinTech firms who responded and not jurisdictions. "N/A" and "Unsure" responses have been omitted from this chart. Source: (CCAF, WEF and World Bank, 2020).

In addition, the introduction of e-KYC (33%) and remote onboarding (40%) frameworks remains a recurrent market request as they considerably lessen barriers to entry for new firms. Traditionally, incumbents have maintained a monopoly on financial services because regulatory requirements dictated the need for manual checks on account applicants and holders. This limited new firms from launching widely without large capital expenditure to have the staff on hand to engage in these verifications and lapses could result in heavy fines. The advances in facial recognition and document validation software have allowed new entrants to launch products at scale and reach underserviced consumers but has been contingent on regulatory approval of these digital tools.

Challenges and factors impacting regulatory response to FinTech

Challenges and drivers of uneven regulatory landscape

Regulators in MENA have identified a range of internal challenges in regulating FinTech, compared to more traditional financial services. These challenges may explain the variation in the prevalence of regulatory frameworks across the MENA region. Table 7.1 is based on regulators' own assessments of the impediments to effective supervision of FinTech in 2019.

Table 7.1: Regulators' perception of impediments to effective regulation – MENA (N=11)

IMPEDIMENTS TO EFFECTIVE SUPERVISION	MENA (N=11)
Limited technical expertise within the regulator(s)	75%
Need to co-ordinate the activities of multiple regulators	50%
Limited funding / resources for the regulator(s)	50%
Small size of firms/industry; can't justify intense supervision	50%
Regulators' jurisdiction over this activity is unclear or limited	25%
Lack of usable / reliable data on firm activities	38%
Other, please specify	50%

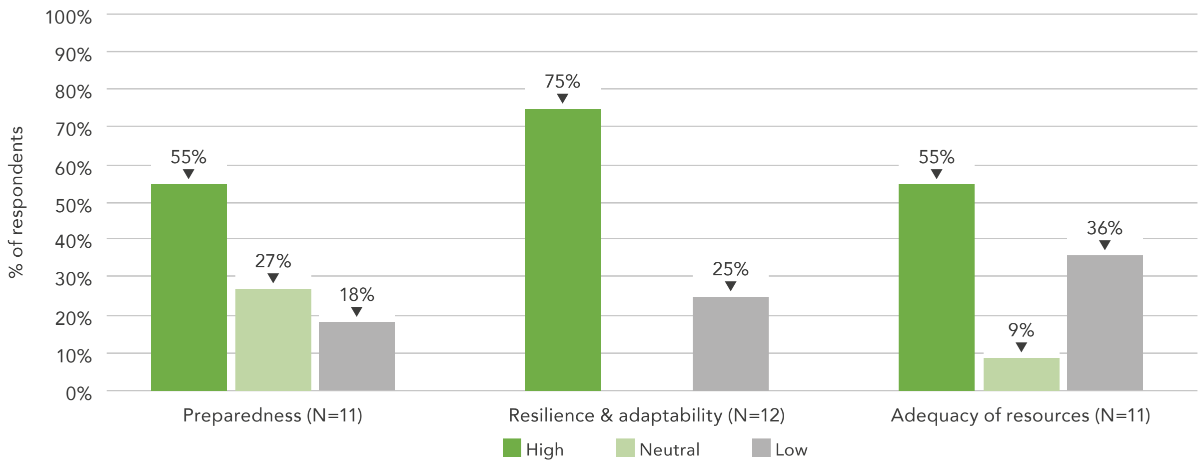
Note: N refers to the number of regulators in MENA who responded to a survey. Source: (CCAF and World Bank, 2019).

As we see in Table 7.1, limited technical expertise within the regulator (75%) has been identified as the most common impediment to the effective supervision of FinTech in MENA. Limited technical expertise is likely to hinder the development of regulatory frameworks and enabling regulations. The importance of cybersecurity and data protection has increased demands for technical expertise within MENA regulators. Half of the surveyed regulators also identified lack of coordination, resourcing and market size concerns as further impediments. A lack of resources can also have a profound impact on the ability of jurisdictions to enforce and implement regulations. On the other hand, only 25% of respondents consider uncertainty regarding the jurisdiction of the regulator as an impediment – significantly lower than the global average of 55% (CCAF and World Bank, 2019).

Challenges related to the COVID-19 pandemic

The impact of COVID-19 has increased internal challenges for many authorities. **Figure 7.5** shows regulators' perceived levels of preparedness, resilience and adaptability, and adequacy of resources in the wake of COVID-19 in the MENA region.

Figure 7.5: Perceived levels of preparedness, resilience and adaptability, and adequacy of resources in the wake of COVID-19 – MENA



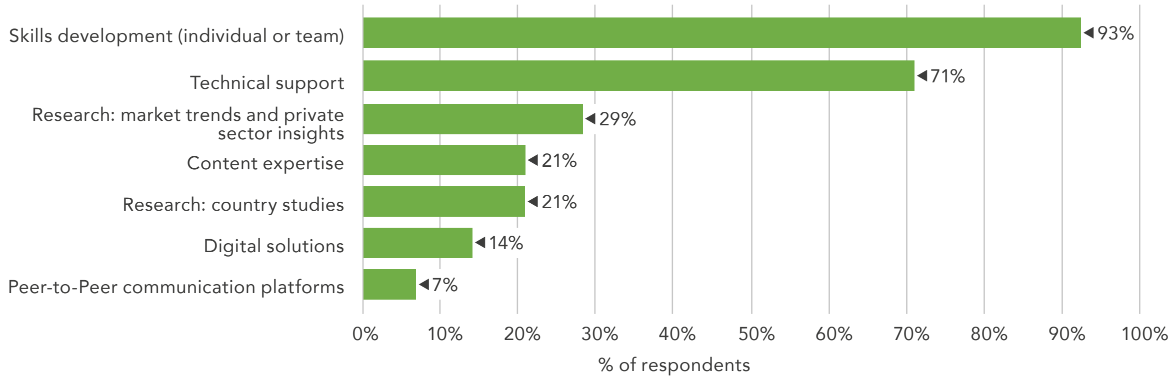
Note: N refers to the number of regulators in MENA who responded to a survey. Source: (CCAF and World Bank, 2020).

Of the surveyed regulators, 55% perceived that they had high levels of preparedness, similar to the global average of 54%, while 75% identified high levels of resilience and adaptability, similar to the global average of 80%. Finally, 55% consider they have high adequacy of resources to be able to respond to the challenges of COVID-19, near the assessment of regulators globally at 59% (CCAF, WEF and World Bank, 2020).

The relative lack of resources and levels of resilience and adaptability may create delays in developing frameworks for the regulation of FinTech, particularly during the COVID-19 pandemic. This is likely a result of resources being redeployed to deal with the immediate risks created by the pandemic, rather than spent on developing longer-term regulatory frameworks.

Figure 7.6 exhibits the types of assistance regulators surveyed in MENA have identified which they would benefit from most in supporting their work on FinTech, in light of COVID-19.

Figure 7.6: Types of assistance regulators would most benefit from to support their work on FinTech in light of COVID-19 – MENA (N=14)

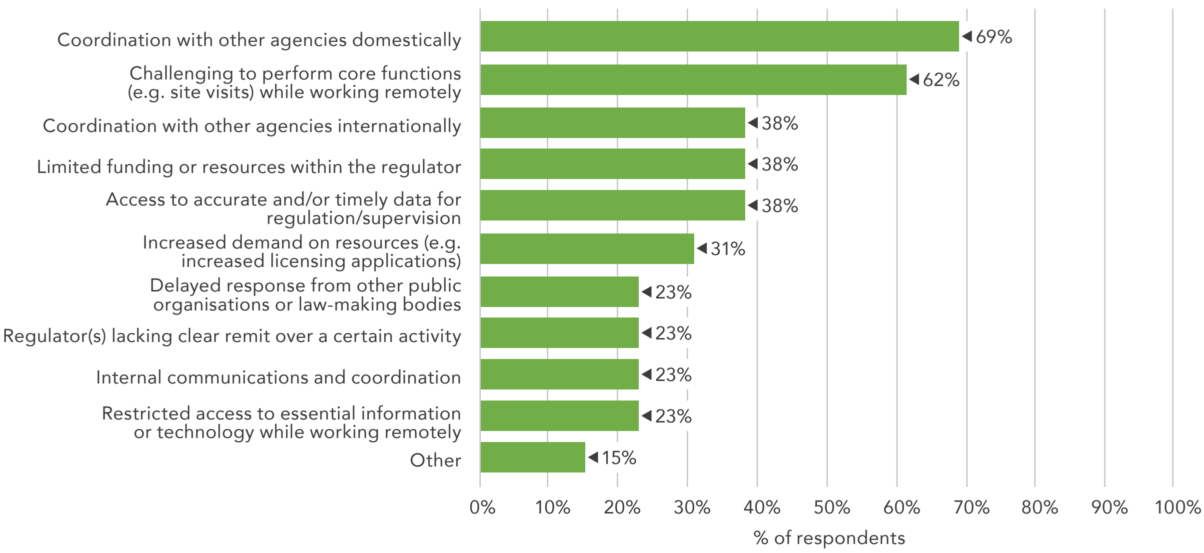


Note: N refers to the number of regulators in MENA who responded to a survey. Source: (CCAF and World Bank, 2020).

The vast majority (over 93%) of regulators that responded to the COVID-19 response survey in MENA considered skills development to be beneficial to support their work on FinTech in light of the pandemic. This contrasts to 80% globally. Responding to developments within FinTech requires highly specialised knowledge and skills – particularly to understand emerging technologies and create appropriate regulatory responses and frameworks. A lack of these skills is likely to present a barrier for regulators seeking to create enabling frameworks for FinTech. Technical support was similarly highlighted by 71% of regulators as a type of assistance that would be beneficial, indicating a need for more subject matter specific expertise and knowledge.

The regulators surveyed were asked to evaluate the most severe challenges in undertaking regulatory responses to FinTech during the pandemic, presented in **Figure 7.7**. The most severe challenges included coordination with other domestic agencies (69%) as well as internally (38%) as well as difficulties in performing core functions while working remotely (62%). Limited funding/ resources (38%), access to data (38%) and increased demand on resources due to the pandemic (31%) were also noted as challenges in responding to fintech. As regulators were required to devote greater time and effort to performing core supervisory functions, this would have left them with less time to develop frameworks addressing relevant FinTech verticals.

Figure 7.7: Internal challenges to developing regulatory responses to FinTech in light of COVID-19 – MENA (N=13)



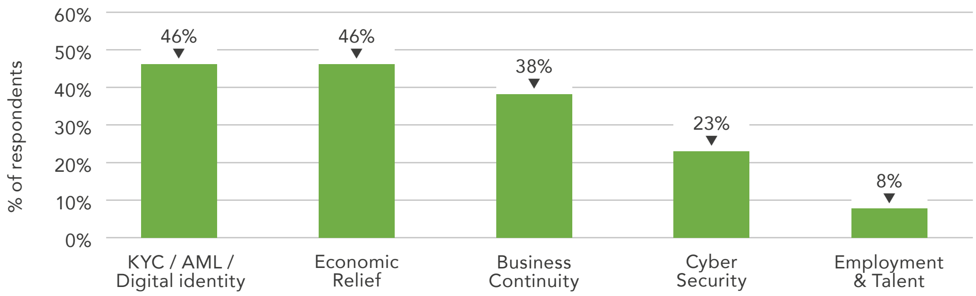
Note: N refers to the number of regulators in MENA who responded to a survey. Source: (CCAF and World Bank, 2020).

Measures taken by regulators in response to COVID-19

Regulators in MENA have taken a variety of measures in response to the pandemic. A survey by CCAF and the World Bank captures COVID-19 related regulatory measures undertaken by MENA regulators (CCAF and World Bank, 2019).

As indicated in **Figure 7.8**, KYC/AML/digital identity and economic relief were the two most common measures pursued by regulators in the MENA region. Employment and talent was the least common, perhaps reflecting the necessity during the pandemic to divert resources to core functions.

Figure 7.8: Instances of regulatory measures taken by respondents – MENA (N=13)



Note: N refers to the number of regulators in MENA who responded to a survey. Source: (CCAF and World Bank, 2020).

The pandemic exacerbated the necessity of digital identity and e-KYC. With lockdowns and guidelines implemented globally requiring individuals to stay at home or isolate, there was a real risk of financially excluding people who could not overcome the obstacles associated with the traditional, in-person KYC and CDD process. DFS presented a natural solution, with the ability to scale being linked to onboarding clients electronically and ensuring adequate AML provisions have been followed. Here, the role of e-KYC as an enabler across many FinTech verticals is highlighted. As described in **Figure 5.6**, many MENA regulators in the sample allow for e-KYC, either through their existing KYC framework (25%), or through an e-KYC specific framework (42%), while only 17% of jurisdictions specifically prohibit e-KYC. Recognising the importance of remote onboarding during the COVID-19 pandemic, 46% of regulators in MENA have introduced specific measures relating to KYC/AML/digital identity during the crisis, as **Figure 7.8** shows.

The importance of AML and e-KYC as part of remote onboarding processes has been echoed by both regulators and market participants (CCAF, WEF and World Bank, 2020). The increase in e-KYC frameworks is welcomed by market participants and also by FATF, which includes the introduction of technology in the KYC process in its recommendations (FATF, 2020b). While 46% of respondents have sought to address the need for e-KYC as **Figure 7.4** shows, some of the most common request to regulators by market participants in light of COVID-19 include greater and immediate regulatory support for e-KYC (33%) and regulatory support for remote onboarding (40%).

Financial sector cybersecurity evidently remains a significant regulatory challenge. Most jurisdictions across MENA have a national cybersecurity framework already in place (92%), and sectorial regulations, guidance and supervisory practices for the financial sector have been issued during the pandemic. COVID-19 has accelerated efforts to strengthen cybersecurity efforts, with 23% of authorities in our sample having undertaken specific cybersecurity actions in light of the pandemic as indicated in **Figure 7.8**. These actions, through measures and guidance notes, are intended to improve cyber resilience to help combat cyberattacks.

8. Concluding remarks and future research

8. Concluding remarks and future research

This study has explored the regulatory approach to FinTech in MENA across a sample of jurisdictions to draw region-specific insights into sector-specific FinTech regulation, cross-cutting regulatory frameworks and regulatory innovation initiatives. The findings demonstrate that although the importance of FinTech in the region has increased, propelled further by the COVID-19 pandemic, there are still areas to be addressed.

One important observation is that the variation in FinTech regulation across MENA is closely related to World Bank income levels. Early indications are that this has had an impact on regulation, with lower-income jurisdictions, and therefore greater resource constraints, being less likely to have in place clear mandates, frameworks and supporting regulatory innovation initiatives than those classified as 'middle' or 'high' income. This suggests that regulatory gaps are primarily in low resource environments. Identifying fit-for-purpose regulatory approaches that FinTech markets in resource-constrained environments can adopt is an additional area for exploration for future research. Although middle or higher-income jurisdictions may have their own resource challenges, especially with regard to availability of technical expertise at a domestic level, they are typically able to address this by attracting talent to bridge the gap. This may not be an option for low-income jurisdictions. Further underscoring this resource challenge, a lack of technical expertise was most frequently cited as an impediment to the effective supervision of FinTech in MENA.

Despite the variation in regulation, the findings demonstrate that regulators in MENA have taken measures to advance the regulation of FinTech and are continuing to do so. The study identified four sampled MENA jurisdictions with plans to introduce a further seven regulatory frameworks across the FinTech verticals considered. Additional areas that indicate regional progress is that most sampled MENA jurisdictions are planning open banking regulatory frameworks. Nonetheless, some gaps remain with respect to frameworks in areas such as P2P lending, where the region has proportionally less regulatory frameworks in comparison to the APAC region – although MENA is still ahead of SSA in this regard.

The mapping of regulatory innovation initiatives reveals a rapid increase since the mapping undertaken by CCAF in 2019, as discussed in Chapter 6. An initiative that is of particular interest to MENA regulators is digital infrastructure, where many are observed to be accelerating initiatives. However, further research is required in MENA, and echoed across APAC and SSA, on the interplay between digital infrastructure and efforts to create enabling regulatory frameworks (particularly requirements relating to digital identity, e-KYC and open banking), and in turn how this links to FinTech market development.

The study further suggests the need for a follow-up evaluation examining the effectiveness of the frameworks applicable to FinTech, and how regulators should sequence the introduction of new FinTech regulatory approaches. This remains an important information gap for regulators seeking to balance competing regulatory objectives against challenges such as limited resources.

Finally, a presently small but rapidly expanding area where further research is required is the FinTech-specific aspects of the Islamic finance sector. The study findings already indicate that some MENA jurisdictions have introduced bespoke regulation for Sharia-compliant products, thus creating a more enabling environment for the burgeoning FinTech initiatives in Islamic finance.

9. The regulatory approach to FinTech in Egypt

9. The regulatory approach to FinTech in Egypt

Egypt is often cited as a jurisdiction with exciting potential in the MENA region, both in terms of market potential and with regards to the efforts it has demonstrated to develop a robust FinTech ecosystem (CGAP, 2020; Egyptian Banking Institute, 2020). The main FinTech regulators in Egypt – the Central Bank of Egypt (CBE) and the Financial Regulatory Authority (FRA) – have been supportive of innovation in financial services since at least 2019, when the CBE launched its FinTech and Innovation Strategy and a FinTech and Innovation Department. This strategy also seeks to address the needs of the unbanked and underserved segments of its population (bank account ownership in Egypt is only 23% of the population and as much as 40% of Egypt's GDP derives from the informal economy) and on regulatory innovation initiatives such as a regulatory sandbox (World Bank, 2020a; Arab Monetary Fund, 2020a; Egyptian Banking Institute, 2020; The FinTech Times, 2021). Egypt's vision, as per their FinTech and Innovation Strategy, is to be "a regionally recognised FinTech hub in the Arab world and Africa, home to the next generation of financial services, talent and innovation development" (CBE, 2021). The Egyptian authorities are supporting this vision with the creation of a FinTech Hub, a FinTech Fund, KYC initiatives, and the establishment of a FinTech Sandbox.

The supportive regulatory environment led to the rapid development of sector and activity-specific regulation, both through national legislation and by issuance of regulation by the CBE and FRA. These include regulations for mobile payments, simplified KYC and customer due diligence (Egyptian Banking Institute, 2020). In addition to this, CBE and FRA have recently made other major reforms that aim to speed up the financial innovation industry , such as the Egyptian Banking Law (Arab Monetary Fund, 2020; The FinTech Times, 2021) and the new draft law on FinTech for non-banking activities that was recently approved in principle by the Egyptian parliament (Grace, 2021).

The government has been supportive of some of these efforts and included the FinTech sector in its Egypt Vision 2030 programme, as it endeavours to upgrade Egypt's payment systems to enable it to become a cashless society. As such, the CBE received a mandate to improve segments such as digital payment services, mobile money and e-wallets (Kheira, 2021). Equally, the National Payments Council – created by Presidential Decree No. 89 of 2017 – aims to ease the transition towards a cashless society. In 2019, decree No. 18 passed and requires public institutions and private companies to make all payments of salaries, suppliers, insurance, subsidies, and leases in electronic form. These provisions are to be enforced by fines, which essentially mandates the adoption of e-payments (a first for the MENA region). In addition, the government is in the process of installing point-of-sale machines at 22,000 government offices (Riley et al., 2020).

Investment in the FinTech sector has also ramped up, including initiatives that the CBE itself has spearheaded. In 2020, for instance, the CBE announced a dedicated fund of up to USD 100 million, as well as the intention to invest as much as USD 60 million into technological parks across Egyptian universities (Global Ventures, 2020).

Figure 9.1 demonstrates the regulatory approach to FinTech across key FinTech verticals. While Egypt's regulatory frameworks for the sectors examined are largely similar to the MENA region's most common regulatory frameworks, it has specific provisions for the FinTech sector in its general regulatory frameworks.

Figure 9.1: Egypt regulatory frameworks in specific fintech verticals

	PAYMENTS	E-MONEY	REMITTANCES	EQUITY CROWDFUNDING	PEER-TO-PEER
Egypt	General Sector Framework	Fintech Specific Framework	General Sector Framework	Regulatory Framework in Development	Regulatory Framework in Development
Region Mode	General Sector Framework	General Sector Framework	General Sector Framework	General Sector Framework	General Sector Framework

Figure 9.2 illustrates Egypt's regulatory frameworks for the selected cross-sectoral areas, with Egypt planning an open banking framework. Among Egypt's efforts to support the financial services and FinTech sectors, it is noteworthy that it received approval for the Cybersecurity Law as early as 2018 and the Consumer Finance Law No. 18 was introduced in 2020.

Figure 9.2: Egypt cross-sectoral regulatory frameworks

	DATA PROTECTION	CYBERSECURITY	CONSUMER PROTECTION	OPEN BANKING
Egypt	Financial Services Specific Law/ Framework	General Law with Financial Services Agency Strategy	Financial Services Specific Law/ Framework	Law/Regulatory Framework in Development
Region Mode	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Unregulated

FinTech related regulatory developments

Regulatory innovation initiatives

The CBE and the FRA have historically been supportive of regulatory innovation initiatives. In June 2019, the CBE initiated the pilot phase of its regulatory sandbox and published a FinTech Sandbox Framework, introducing a mandate to review the framework at a later date (Central Bank of Egypt, 2019a). For the first cohort, the CBE decided to adopt a thematic approach, inviting companies to provide e-KYC for customer mobile wallet onboarding (Arab Monetary Fund, 2020a).

The CBE also launched a FinTech Hub in Cairo. The stated purpose of the FinTech Hub is to "connect all FinTech ecosystem stakeholders, including FinTech start-ups, financial institutions, regulators, service providers, mentors and investors", as well as to become "a one-stop-shop that is essential for collaboration and networking for FinTech-driven start-ups, mentors and financial institutions" (Central Bank of Egypt, 2021).

Financial inclusion, payments, and mobile wallets

Financial inclusion through payments and mobile wallets is a a priority for the CBE and the FRA, which have often relied on the technical assistance of institutions such as The World Bank's Financial Inclusion Global Initiative and Alliance for Financial Inclusion (AFI) (Riley et al., 2020). In 2013, the first mobile wallet services were licensed in Egypt, in cooperation with the Housing and Development Bank and the National Bank of Egypt (Egyptian Banking Institute, 2020). As a result of the COVID-19 pandemic, the regulatory authorities in Egypt have also eased some of the requirements to facilitate access to financial services. For instance, facilitating the onboarding process for mobile wallets through self-registration, waiving domestic transfer fees between mobile wallet accounts, and increasing daily and monthly payment transaction limits for mobile wallets and prepaid cards (Clifford Chance, 2019).

In 2018, in the context of the National Strategy for Non-Banking Financial Activities, CBE launched a national payment scheme enabling digital payments for P2P, G2P and eCommerce called Meeza. Meeza is accessible via a mobile phone and digital cards using its payment gateway called PayFort (Riley et al., 2020). The initiative was impactful in expanding the use of mobile payments, which grew 30% between 2017 and 2018, with as many as 4 million Meeza cards issued as of December 2019 (Egyptian Banking Institute, 2020; Riley et al., 2020). Moreover, the CBE mandated service interoperability between service providers and introduced a virtual wallet meant to convert and receive money from affiliated bank accounts and mobile companies called Ta7weel which is jointly managed by the Central Bank of Egypt, the Ministry of Finance, and national and commercial banks (Riley et al., 2020). Financial inclusion has been included in the recent reforms in the Egyptian Banking Law as one of the CBE's major tasks, empowering the CBE to lead financial inclusion efforts in Egypt and develop the National Financial Inclusion Strategy (NFIS) in preparation for its launch (Enterprise, 2020).

e-KYC

The CBE's focus on improving KYC is entwined with its financial inclusion initiatives. It has focused on facilitating e-KYC and made it the theme of its first regulatory sandbox cohort. Valify, for instance, is an Egyptian digital identity solution that was part of the first cohort. Its solution focuses on digital onboarding via a three-step solution of information extraction, facial recognition and authentication (CGAP, 2020). The CBE also launched an e-KYC solution to facilitate the electronic opening of bank accounts, which also responded to consumer needs during Covid-19 (CCAF, WEF and World Bank, 2020; CCAF and World Bank, 2020).

The CBE has also introduced risk-based due diligence procedures for prepaid cards and for mobile payments to expand financial access and to help ensure e-KYC solutions have broad impact (Central Bank of Egypt, 2019b, 2016). This includes tiered KYC measures – to reduce documentation requirements for small account holders – and broadens the group that can access the services (Riley et al., 2020). This also underscores the value-added of *Meeza*, which allowed debit cards, prepaid cards, and digital wallets to integrate into the switch (Global Ventures, 2020).

Regulatory challenges

There are a number of challenges that are still associated with the development of FinTech in Egypt. Among the most frequently cited, financial illiteracy and digital financial illiteracy still seem to be obstacles to the growth of the FinTech sector. As the population aged between 20 and 30 comprises the vast majority of FinTech users, there is very little market penetration in older age groups, with services such as crowdfunding recording no usage in the 40 to 50 age range (Deloitte Digital, 2020). Likewise, consumers still have a significant degree of mistrust in digital services, as they fear fraud and loss of privacy arising from their lack of familiarity with the medium. This is combined with the long-standing cultural preference for cash (Riley et al., 2020).

Regarding the gender gap, much progress has been made and the CBE has produced multiple initiatives to provide financially underserved households and female MSME owners with an opportunity to be part of the formal financial system. This has been achieved through working on a number of pillars, some of which have been described above, that include: enabling the legal and regulatory framework conditions, modernizing the financial infrastructure, and building a comprehensive gender-disaggregated data, complemented with the supply side data from financial institutions (AFI, 2019b). Egypt still faces a need to address a gender gap when it comes to financial inclusion, as women are 10% more likely to not have a financial account.

In addition to the CBE, institutions such as the National Council for Women and the Arab Monetary Fund are active and continue to work on issues related to women's financial access (Riley et al., 2020).

With regards to the regulatory innovation initiatives, there is potentially still some streamlining left to do, while the CBE regulatory sandbox still has a small number of cohorts and limited adoption by companies.

10. The regulatory approach to FinTech in Jordan

10. The regulatory approach to FinTech in Jordan

Jordan has been adapting its regulatory framework to create an enabling environment for inclusive financial innovation, especially in relation to expanding financial inclusion. The main regulatory initiatives concerning FinTech have been deployed by the Central Bank of Jordan (CBJ), which has received a mandate from the government – in the context of the National Financial Inclusion Strategy (NFIS) launched in 2018 – to reduce the amount of cash in circulation and help in the transition to greater use of DFS (Central Bank of Jordan, 2021b; Riley et al., 2020; Egyptian Banking Institute, 2020). The CBJ has engaged with financial innovation since at least 2016 when it became a member of the Alliance for Financial Inclusion (AFI) and launched regulatory innovation initiatives such as a regulatory sandbox in 2018 (Egyptian Banking Institute, 2020).

In many senses, Jordan exemplifies some of the common challenges that many other MENA countries face. Jordan is still a primarily cash-based society, with a large unbanked population, and, additionally, hosts a large refugee population. Such demographic factors have increased the need for coordination between Jordan's different regulatory authorities and with international organisations (Central Bank of Jordan, 2021b). To respond to such challenges, the CBJ has created a series of financial and banking literacy programmes that are also supported by partnerships in the FinTech sector (Central Bank of Jordan, 2021c). Likewise, partnerships with the UNHCR and the Gates Foundation have focused on fostering innovation in DFS to service refugees that have settled in Jordan through the use of biometrics (Riley et al., 2020).

The broad mandate and the initiatives spearheaded by the CBJ have also led to the introduction of several bespoke rules and regulations that have facilitated the development of the FinTech sector and eased the friction in some FinTech verticals. The CBJ's recent regulation concerning third-party payment processors include provisions for the protection of e-payment users' data and personal information. It also issued specific regulation for cybersecurity and guidelines for cloud computing (Egyptian Banking Institute, 2020). Other examples of recent changes are e-KYC regulation (Central Bank of Jordan, 2021b) and the Microfinance institutions bylaw, which clarifies the regulation and supervisory framework for the segment (Central Bank of Jordan, 2021b).

The CBJ has been led the development of the national payments system – starting with the Mobile Payments System (JoMoPay), then the deployment of the electronic person to government system of presenting and paying bills (E-Fawateer), and more recently "CliQ" a new system for instant payments that will help facilitate greater scale of digital payments and interoperability, which is a strategic goal for JoPACC (Central Bank of Jordan, 2021d). The Jordan Payments and Clearing Company (JoPACC) is a private shareholding company owned by the Central Bank of Jordan (CBJ) and commercial banks in Jordan that has been established in 2017 (JoPACC, 2021).

Figure 10.1 demonstrates the regulatory approach to FinTech in Jordan across key FinTech verticals. Jordan's FinTech specific frameworks reflect the aforementioned mandate given to the CBJ and the efforts that have been made across multiple segments to foster financial inclusion and innovation.

Figure 10.1: Jordan regulatory frameworks in specific fintech verticals

	PAYMENTS	E-MONEY	REMITTANCES	EQUITY CROWDFUNDING	PEER-TO-PEER
Jordan	General Sector Framework	Fintech Specific Framework	General Sector Framework	Unregulated or Self-Regulated	Fintech Specific Framework
Region Mode	General Sector Framework	General Sector Framework	General Sector Framework	General Sector Framework	General Sector Framework

Figure 10.2 indicates Jordan's regulatory frameworks for the selected cross-sectional areas, with very similar results to the MENA region's most common regulatory approaches. Like the rest of the MENA region, Jordan has yet to introduce any measures related to open banking.

Figure 10.2: Jordan cross-sectoral regulatory frameworks

	DATA PROTECTION	CYBERSECURITY	CONSUMER PROTECTION	OPEN BANKING
Jordan	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Law/Regulatory Framework in Development
Region Mode	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Unregulated

FinTech related regulatory developments

Regulatory innovation

The CBJ launched its FinTech Sandbox in 2018 organised across eight different thematic areas: electronic payments and money transfer, including cross-border remittances; saving, financing and credit services; consumer protection services; mitigating risks and financial fraud detection services; building a digital financial identity; innovative digital verification for clients; cryptocurrencies, blockchain and DLT platforms and RegTech services (Central Bank of Jordan, 2020).

Unlike other sandboxes in the region, the CBJ's FinTech Sandbox includes express provisions that aim to foster "local and international cooperation amongst regulatory and FinTech sandboxes in the banking and financial sectors", both to support scaling of local Jordanian FinTechs, as well as to attract applicants from abroad (Central Bank of Jordan, 2020).

It is also worth noting that the CBJ provides an example of modifying a regulatory innovation initiative in light of the pandemic through their regulatory sandbox. In response to the pandemic, the CBJ sought to explicitly target and encourage applicants from firms whose innovations might specifically help address COVID-19 related challenges under the banner of "FinTech in COVID-19 and Beyond" (CCAF and World Bank, 2020).

Financial inclusion and payments

Most regulatory initiatives with regards to financial inclusion, payments and e-money have arisen in the context of the steering committee – headed by the CBJ – in charge of developing and implementing the NFIS (2016–2018). In 2016, the steering committee launched six hubs – electronic payment systems, microfinance, financing small and medium-sized companies, financial literacy, financial customer protection, as well as the collection and analysis of data and performance indicators – and started implementing the necessary reforms to support firms interested in those segments, usually with strong financial innovation aspects (Central Bank of Jordan, 2021b). The NFIS includes targets for digitising government payments, enhancing the regulatory oversight of agents, expanding cross-border remittances, automating dispute resolution, and publishing comprehensive rules (Riley et al., 2020). The NFIS report issued in 2021 showed the NFIS succeeded in increasing financial inclusion in Jordan to reach 50% (from 33.1% in 2017) aand reducing the gender gap to 29% at the end of 2020 (from 53% in 2017) (Central Bank of Jordan, 2021a).

Key parts of Jordan's efforts on financial inclusion are the introduction of the Electronic Transactions Law in 2015 which provided the initial regulation for e-payment and other forms of online payment services and the evolution of Jordan's national payment scheme (Clifford Chance, 2019). After the Jordan Mobile Payment switch (JoMoPay) was incubated at CBJ, scheme ownership and operation were transferred to the public–private entity, JoPACC. This allows all payment services providers to interface with a single system, (CGAP, 2021, Central Bank of Jordan, 2021d; Egyptian Banking Institute, 2020). Like other regulators in the MENA region, the CBJ started to embed FinTech solutions into governmental services to encourage adoption by the public and enable initiatives in the private sector (Clifford Chance, 2019).

The regulators also enacted measures to respond to the pandemic to embrace opportunities in digitising payments and mitigate the potential costs and challenges arising therein. For instance, the CBJ utilised mobile wallets to distribute government aid and salary payments. The payments were targeted at specific demographics whose mobility would be particularly challenged, such as army personnel and the retired. The CBJ has also launched the "COVID-19 Response Challenge Fund" to encourage the acceptance and usage of digital payments through digital wallets. The fund encourages payment services providers, merchants and users (particularly vulnerable groups) to shift from using cash to DFS (CCAF and World Bank, 2020). The CBJ already had a track record of leveraging DFS to make payments to marginalized communities such as low-income Jordanians and refugees and has done so in partnership with the World Food Programme (WFP) using biometric identification and card-based solutions to deliver benefits for WFP beneficiaries.

Mobile wallets are a useful tool for facilitate P2P payments remotely and can also be used to withdraw cash from ATMs or pay bills, and do not require access to a smartphone or a bank account (rather relying on local telecom operators and licensed agents and cards) (Clifford Chance, 2019). There are also a number of FinTech initiatives aimed at the refugee population. For instance, EyePay operates using Ethereum to support the financial inclusion of Syrian refugees in Jordan, creating a digital identity based on a scan of their iris (World Bank, 2020a).

e-KYC

The CBJ has also deployed some measures to facilitate access to bank accounts, in the context of the NFIS. In 2019, the CBJ introduced rules for simplified due diligence procedures for opening bank accounts and mandated that no minimum balances shall be required. Recently, the CBJ has issued a new regulation for e-KYC and digital onboarding. The CBJ has also created measures for self-registration and issued several circulars to facilitate onboarding through QR codes (Riley et al., 2020).

Regulatory challenges

Financial and digital literacy are also mentioned as significant challenges. Much like other jurisdictions in the MENA region, there is a sense that most Jordanians still believe in paper money and find the transition to digital payment services difficult. While progress has been made by the programmes launched by the CBJ, such as the DFS Financial Literacy Strategy, there still is much to be done (Riley et al., 2020). Behavioural change will take time.

Finally, the current efforts have produced highly uneven effects throughout Jordan, with DFS still largely concentrated in Amman. The lack of substantial agent networks and the slow deployment of structures for mobile payment providers has left out rural populations and women from the FinTech advances that have been rolled-out in more central areas (Riley et al., 2020). Uneven 4G coverage in some regions also slows the pace of the transition and requires concerted efforts between regulators and other government entities (Kheira, 2021).

Jordan's regulators still face a series of challenges. When it comes to supervising e-wallets and emerging FinTech business models, there a need for greater capacity building – especially considering that some of the firms are themselves relatively new and under-resourced to scale up and deal with all the regulatory requirements. Moreover, regulators continue to struggle to attract and retain talent that could ease some of these issues (Kheira, 2021; The FinTech Times, 2021). Such issues in capacity building are suggested to have led to some gaps in the regulation of DFS (Riley et al., 2020).

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