

ICD-REFINITIV OIC MEGATRENDS REPORT 2022

FINTECH FLOURISHING, SOCIETIES CHANGING



An LSEG Business



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FOREWORD



Ayman Sejiny
Chief Executive Officer, Islamic Corporation
for the Development of the Private Sector



Mustafa Adil
Head of Islamic Finance,
Refinitiv

Refinitiv, the world's largest provider of financial markets data and infrastructure, and the Islamic Corporation for the Development of Private Sector, the private sector development arm of the Islamic Development Bank (IsDB) Group, are proud to present the first ever edition of the OIC Megatrends Report.

The “OIC Megatrends Report 2022: Fintech flourishing, societies changing” is an industry-first, future-focused thought leadership publication to analyse how Islamic finance is responding to the impact of global megatrends on 57 countries of the world that are either Muslim-majority or have significant Muslim populations, all of which are member states of the Organization of Islamic Cooperation (OIC).

There have been numerous reports that have separately studied global megatrends and different aspects of Islamic finance but to date there is no single one that looks specifically at the relationships between the two.

We at Refinitiv, together with our partner the Islamic Corporation for the Development of Private Sector, believe this future-focused report is long overdue due to three factors:

- 1. Demographics:** The 1.9 billion peoples of the OIC account for around a substantial 25% of the world's population;
- 2. Systemic Importance:** The Islamic finance industry is increasingly systemic to the financial industries of a growing number of OIC countries, including key economies Saudi Arabia, Malaysia, and the United Arab Emirates; and

3. Asset base: Most of the world's Islamic finance assets are held in OIC member states, with ten countries holding around 94% (\$3.18 trillion) of Shariah-compliant financial assets, according to findings published in our Islamic Finance Development (IFDI) Report 2021.

As a group, the 57 nations and jurisdictions that make up the OIC have a long way to go economically. The average GDP per capita at current prices of the group of countries was \$3,680 in 2020, around a third of the world's average of \$11,058, according to data from SESRIC's OIC Economic Outlook 2021. This may be just one indicator, but it is sufficient to inform us of the uphill climb for the group of nations as it faces the challenges brought on by global challenges.

This begs the question: Considering the increasingly systemic importance of Islamic finance to key OIC markets, how can Shariah-compliant finance help alleviate bottlenecks or transform societies to overcome their challenges?

Despite the disruptive pandemic, in 2020 the Islamic finance industry grew 14% to \$3.374 trillion, with banks holding 70% of these assets. By the IFDI's projection, the global industry will hit \$4.94 trillion by 2025, during which time the world's OIC population is forecast to expand to around 2.05 billion, according to Pew Research's forecast growth rates.

Barring unforeseen catastrophe, the global Islamic finance industry will continue its growth trajectory of an average of 8% until 2025 according to IFDI. What we cannot ascertain is the speed and quality of its solutions to solve the concerns confronting not just the Muslim population, but the whole world.

For a start, this report will help put in perspective for the wider financial industry the contributions of the Shariah-compliant finance sector to the challenges brought on by global megatrends.

We aim to continue this series of reports to cover more ground regarding global megatrends and Islamic finance and we hope this first publication will start to provide a better understanding of how the industry has helped make things better for a lot of people across the world.

EXECUTIVE SUMMARY

This report analyses six global megatrends, their impact on the countries that make up the Organisation of Islamic Cooperation (OIC), and the role of Islamic finance to unlock the megatrends' potential to transform these markets

We first longlisted 100 global megatrends and key drivers, then filtered these down to 14 that present a clear role for Islamic finance solutions. We then narrowed this down to six global megatrends that are highly impactful as catalysts of change and transformation in OIC societies.

The six interrelated megatrends relate to technology and society: **digitalisation, artificial intelligence (AI), transformation, inequality, youth and ageing societies**. The first three are technology trends, which are playing out across OIC societies, together with social changes brought on by the other three trends.

The **key insights** that emerge, including **challenges** and Islamic finance **solutions** for each megatrend, are as follows.

Digitalisation

Tech and tech application businesses won high levels of venture capital (VC) funding in 2021 as the Covid-19 pandemic accelerated digitalisation across many sectors. OIC countries also rode the wave, but funding is still a key challenge for entrepreneurs and start-ups, signalling the need for more Islamic VC and private equity (PE). Collectively the 57 countries of the OIC lag latest developments in digitalisation, but some key Islamic finance jurisdictions are developing best-in-class capabilities. At the same time, dedicated Islamic finance or Islamic economy enablers, such as accelerators, are helping to enhance OIC entrepreneurial ecosystems.

AI

AI is already changing how the world works – but it is still unclear whether it will enhance and/or restrict human potential. OIC markets vary widely in their readiness for automation and the group as a whole would benefit from more cooperation, especially between leading and late adoption nations. For OIC governments, AI and automation have deep implications for citizens, whilst for industry, AI-rich platforms provide novel solutions to problems. More use cases are now emerging from both Islamic banks and Islamic fintechs, resulting in greater customer-centricity and embedded Islamic finance.

Transformation

Disruption is a key catalyst for sectoral transformations that are now ubiquitous, metamorphosing economies and creating new frontiers for innovation. Tech-enabled disruptions have also reached Islamic financial services, but more partnerships are needed in order for them to meet their fullest potential to transform OIC economies. At the centre of this landscape are Islamic banks that hold 70% of the assets of the global Islamic finance industry. They are not immune to increasing non-financial risks, which calls for a greater need to rethink old economic paradigms. Challengers such as Islamic digital-only banks and fintechs may, in time, substantially capture demand in OIC countries but currently, the industry's ecosystem is still nascent, and scale is needed.





Inequality

Inequality is growing, creating inequity in health and education outcomes globally and entrenching societal problems. OIC markets are particularly at risk of lower shared prosperity and whilst redistributive solutions exist in Islamic finance and are slowly reaching critical mass, more funding and awareness is needed. Several successful organisations actively collect, manage, and disburse funds for Awqaf, and Zakat and these efforts align with the United Nations Sustainable Development Goal 10 (SDG 10).

Youth

Younger generations are driving a sea change in consumer preferences and habits, and stakeholders and industry players need to adapt to stay ahead. OIC markets are particularly youthful, with a large base of consumers who wish to integrate their faith across their lifecycle needs and identities. Serving them, Islamic fintechs have started to provide for younger Muslim consumers' financial lifecycle needs and enable their ambitious aspirations, with several now operating across varying geographies. In short, 'glocalisation' is one of the keys to wider traction.

Ageing societies

Population ageing is increasing globally – this pushes up old age support ratios, creating pressure on future workforces and healthcare systems. OIC countries are also affected, yet many have limited pension fund resources, indicating citizens are not saving enough for retirement. Islamic pensions and longevity sukuk can help reduce retirement savings gaps, but stakeholders need to amplify these solutions. On a positive note, several Shariah-compliant pension options are already in the market, including occupational pensions and self-driven private retirement schemes.

SUMMARY INFOGRAPHICS: OIC MEGATRENDS FRAMEWORK

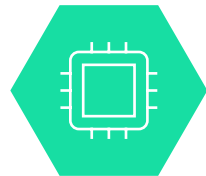
An integrated visual to help understand the effects of global megatrends on the provision of Islamic financial products and services, which in turn can help transform OIC markets over this decade

Six technological and societal megatrends playing out...

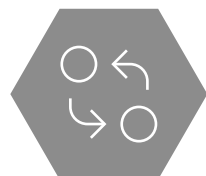
1. Digitalisation



2. AI



3. Transformation



4. Inequality



5. Youth



6. Ageing societies



... disrupting the provision of Islamic financial products and services globally...

1. Digitalisation

Islamic economy enablers:

- Incubators and accelerators
- Shariah-compliant VC
- Shariah-compliant PE

2. AI

Islamic banking and fintech:

- AI virtual assistants
- Opening accounts via facial recognition
- Robo-advisors

3. Transformation

Tech-enabled Islamic solutions:

- Cryptocurrencies
- Islamic Deal Connect (markets)
- Social finance

4. Inequality

Islamic social finance:

- Awqaf – Islamic endowments
- Zakat – Mandatory charity
- Sadaqah – Voluntary charity

5. Youth

Islamic banking and fintech:

- Savings and investments
- Financing
- Digital banking

6. Ageing societies

Islamic pension solutions:

- Occupational
- Fintech-based
- Private retirement schemes

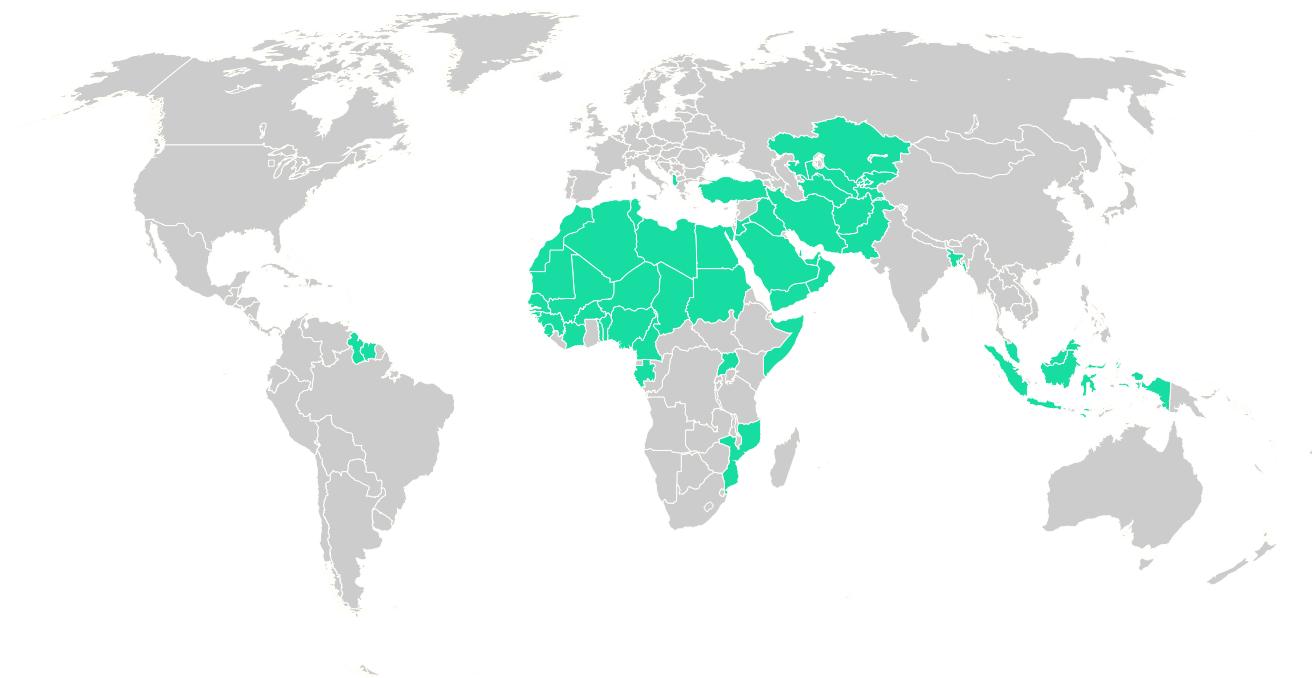
... potentially transforming OIC markets and Muslim consumers over the next decade

OIC in 2030: OIC nations should strive for ambitious targets that action on megatrends can move the needle on – such as '20:30:40':

Society: 20% of income distribution to bottom 50% – currently 14%

Economy: 30% of global GDP (by PPP) – currently at 22%

Technology: 40 unicorns – currently at 8



Digitalisation

- Internet
- Sectoral transformation
- Rise of VC funding
- Impact of big tech

Digitalisation

- Autonomous vehicles
- Digital sales
- Industry 4.0
- Smart homes and cities

AI

- Decreasing cost
- Technological advances
- Growth in real-world use cases

AI

- Machine learning (ML)
- Data analytics
- Computer vision
- Automated voice recognition

Transformation

- Competition
- Digitalisation
- Disruption
- Innovation

Transformation

- Knowledge society
- Rise of life sciences
- Health and wellness

KEY DRIVERS

Inequality

- Income and wealth disparities (between and within nations)
- Institutional and governance gaps
- Varying impact of shocks to global economy on different countries

Youth

- Demographic shifts
- Diverse origins of Gen Z and Muslim Millennials
- Latent spending power of both generations

Ageing societies

- Increased longevity
- Declining fertility rates
- Better healthcare outcomes

RELATED TRENDS

Inequality

- Wealth concentration
- Social unrest
- Economic crises

Youth

- Constant connectivity
- Personalised shopping
- Changing consumer preferences and habits

Ageing societies

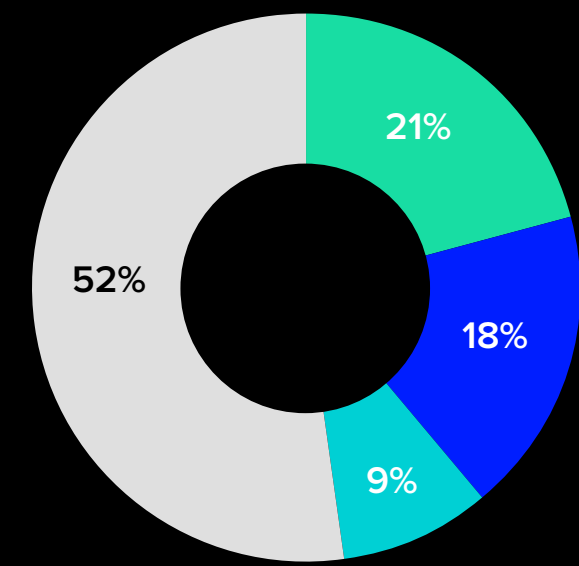
- Rise of Asian middle class
- Increase in global mass affluents
- Hyperurbanisation
- Globalisation of services

GLOBAL MEGATRENDS INFOGRAPHIC

A snapshot of the nature and impact of megatrends on Islamic finance and OIC markets

1. Digitalisation: Huge amounts of VC funding are being channeled into start-ups in high-impact sectors, transforming sectors and communities – OIC are behind the curve.

Companies: three high-impact sectors receive 48% of total venture funding in 2021

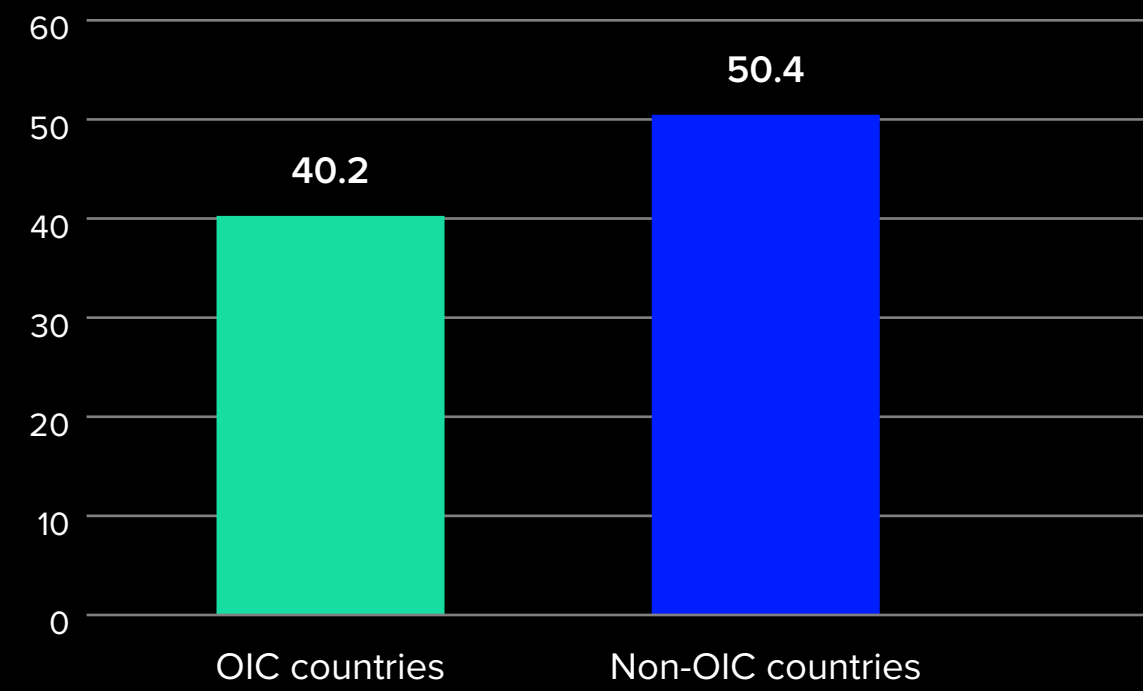


Fintech Retail tech Digital health Other

TECHNOLOGICAL MEGATRENDS

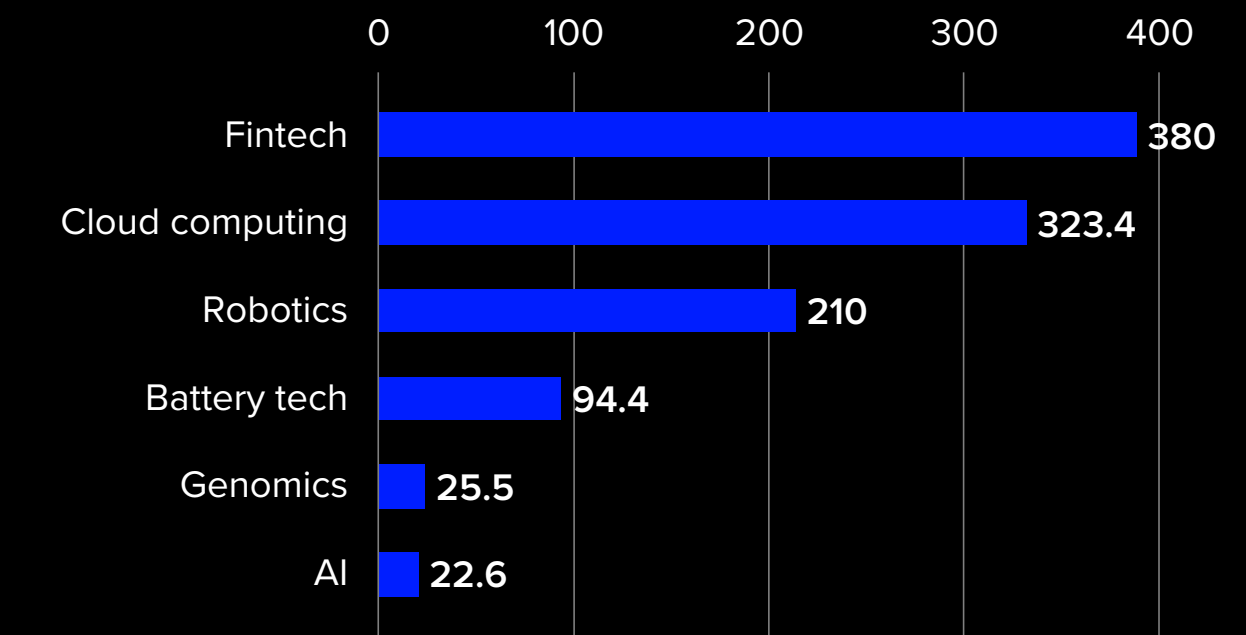
2. AI is dramatically changing how the world works – but OIC governments lag behind in AI readiness.

Government AI Readiness Index Score 2021: OIC vs Non-OIC Countries (Average Overall Score, out of 100)



3. Transformation: The rise of thematic industries is emblematic of disruption and sea changes; digital finance has the potential to transform OIC and developing nations.

Thematic industries' market sizes (2022f, US\$ billion)



SOCIETAL MEGATRENDS

4. Inequality: Wealth and income inequality have reached alarming levels – Islamic social finance can help alleviate the problem in OIC.

\$100bn
Waqf assets globally

70-80%
Waqf assets globally that are in real estate

\$27bn
Waqf land value in Indonesia alone

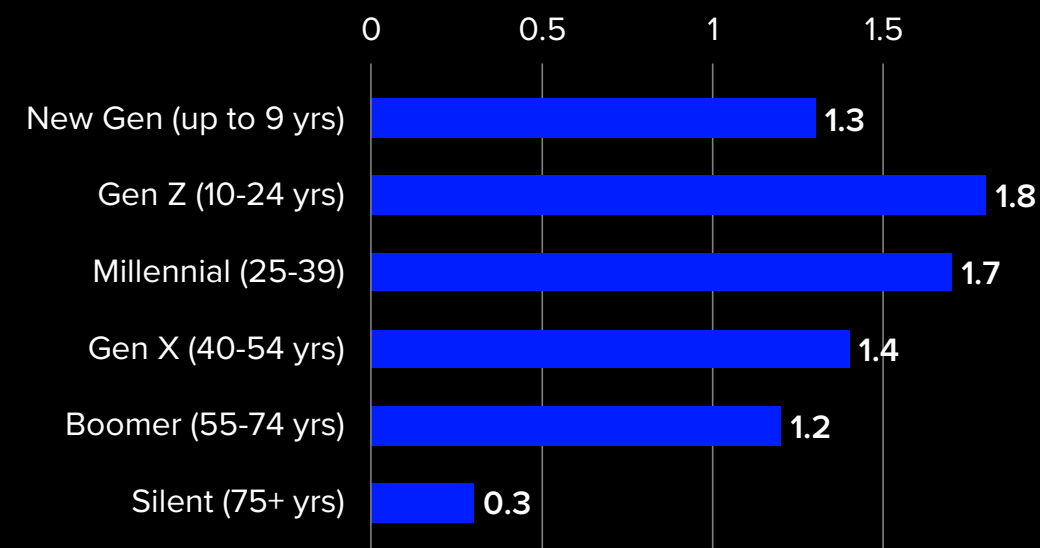
\$301.1bn
Global Zakat collection potential (estimated)

2 million
Beneficiaries of UNHCR Refugee Zakat Fund (across 13 countries)

114,279
Families helped in 2021 by UNHCR Refugee Zakat Fund

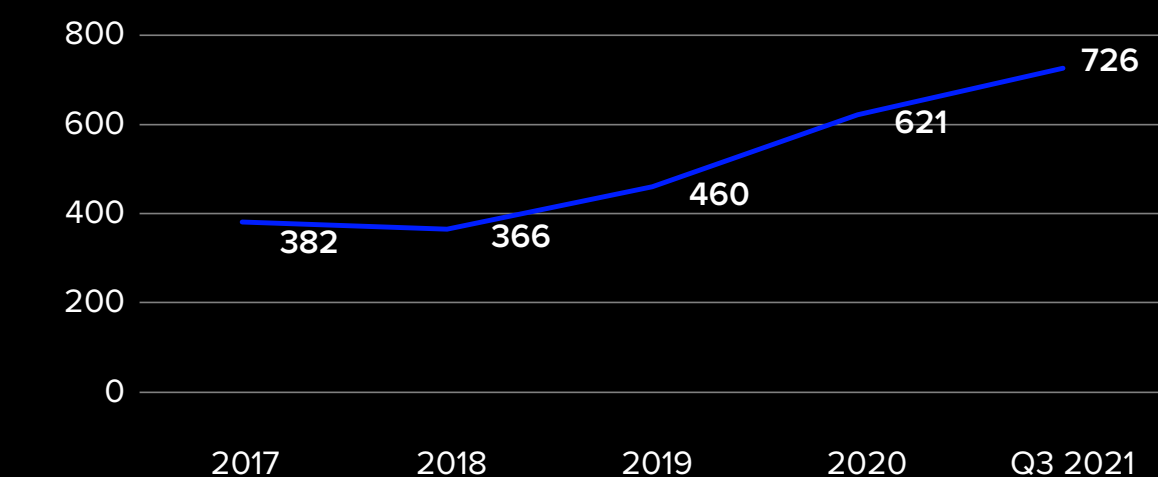
5. Youth: Gen Z and Millennials are large demographics with different consumer habits and preferences – Islamic fintech can help harness these.

Global population size, by generations (bn)



6. Ageing societies: Islamic pension funds are growing, but much more is needed – US pension assets are \$18.8 trillion, far larger than all Islamic pension funds.

Islamic pension funds value (2017-Q3 2021, USD million)



ISLAMIC FINANCE DEVELOPMENT INDICATOR

Your gateway to over 1,500 Islamic financial institutions data

Refinitiv, the world's leading provider of intelligent information for businesses and professionals, provides access to an **exclusive Islamic finance database** that includes data on over 1,500 Islamic financial institutions, through its leading Refinitiv® Eikon platform, which provides insights to over 400,000 financial professionals around the world.

Islamic Finance Development Indicator (IFDI) is composite weighted index that measures the overall development of the Islamic finance industry. The information is comprehensively gathered from a universe of 135 countries and measured across more than 10 key metrics, including Knowledge, Governance, CSR and Awareness.

The database provides Islamic finance markets stakeholders with:



9+ years

Islamic finance industry financial data



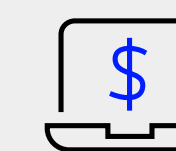
520+

Islamic banks financial data across 73 countries



320+

Takaful operators data across 45 countries



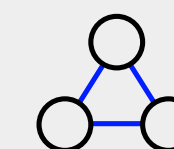
12,000+

Sukuk issuances data from over 24 countries and in more than 12 structures



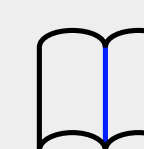
1,700+

Islamic funds data from 32 jurisdictions



1,200+

Shariah scholars data and their board representation



1,000+

Islamic finance education providers



840+

Islamic finance events information

To access the IFDI page and the global Islamic finance database in Eikon, visit <http://bit.ly/IFDI-Eikon>.

New users can contact IFG@refinitiv.com to request access.

For more information, please visit the Refinitiv Islamic finance website: <https://refinitiv.com/en/islamic-finance>.

To download the Islamic Finance Development Report – IFDI 2021 visit <http://bit.ly/IFDI2021>.

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KEY INSIGHTS



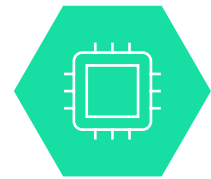
1. Digitalisation

Situation: With abundant VC funding across sectors, digitalisation is transforming the way the world operates.

OIC impact: OIC markets collectively lag the latest developments, but some key Islamic finance jurisdictions are developing best-in-class capabilities.

Role of Islamic finance: Enablers are helping to enhance OIC entrepreneurial ecosystems, but more Shariah-compliant VC and PE funding are needed.

Case studies: Prominent examples of ecosystem enablers and providers of Shariah-compliant VC and PE.



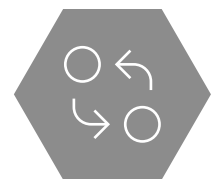
2. AI

Situation: AI is dramatically changing how the world works – but it is still unclear whether it will enhance and/or restrict human potential.

OIC impact: OIC markets vary widely in their readiness for automation – more intra-OIC cooperation is needed between leading and late adoption nations.

Role of Islamic finance: For OIC governments, AI and automation have deep implications for citizens; for industry, AI-rich platforms provide novel solutions to problems.

Case studies: More use cases are emerging from both Islamic banks and Islamic fintechs, resulting in greater customer-centricity and embedded Islamic finance.



3. Transformation

Situation: Sectoral transformations are now ubiquitous, metamorphising economies and creating new frontiers for innovation – disruption is a key catalyst.

OIC impact: Tech-enabled disruption has reached Islamic financial services, with the potential to transform OIC economies – but partnerships are also needed.

Role of Islamic finance: Islamic banks are not immune to increasing non-financial risks; the dawn of disruption invites re-thinking of old economic paradigms.

Case studies: Islamic fintech solutions may in time substantially capture demand in OIC and ethical markets, but the industry ecosystem is still nascent and scale is needed.



4. Inequality

Situation: Inequality is growing, creating inequity in health and education outcomes globally and entrenching societal problems.

OIC impact: OIC markets are particularly at risk of lower shared prosperity.

Role of Islamic finance: Redistributive solutions exist in Islamic finance and are not far from critical mass – but more funding and awareness is needed.

Case studies: Several successful organisations exist that actively collect, manage and disburse funds for Awqaf and Zakat; these efforts align with SDG 10.



5. Youth

Situation: Younger generations are driving a sea change in consumer preferences and habits – stakeholders and industry players alike need to adapt to these.

OIC impact: OIC markets are particularly youthful, with consumers who wish to integrate their faith across their lifecycle needs and identities.

Role of Islamic finance: Islamic fintechs can help provide for younger Muslim consumers' financial lifecycle needs and enable their ambitious aspirations.

Case studies: Several Islamic fintechs now cater to these various lifecycle needs across varying geographies – 'glocalisation' is one of the keys to wider traction.



6. Ageing societies

Situation: Population ageing is increasing globally – this pushes up old age support ratios, creating pressure on future workforces and healthcare systems.

OIC impact: OIC countries are also affected, yet many of these have limited pension fund resources, indicating citizens are not saving enough for retirement.

Role of Islamic finance: Shariah-compliant pensions and longevity sukuk can help reduce retirement savings gaps, but stakeholders need to amplify these solutions.

Case studies: Several Shariah-compliant pension offerings exist now, including occupational pensions and self-driven private retirement schemes.

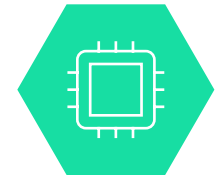
CONTEXT

Linking megatrends and Islamic finance systematically for the first time



1. Digitalisation

With the rise of Islamic fintechs, which number around 241 start-ups across the landscape and amount to a \$49 billion market size (by transaction volume), digital-first approaches promise to eventually be the new normal across OIC markets, despite existing obstacles such as low levels of financial inclusion. Potential Islamic finance applications include Islamic fintech products and services, as well as Islamic banking use cases.



2. AI

The main catalyst for developments in digitalisation will be various forms of AI, such as AI-powered machine learning algorithms in credit scoring systems for Islamic financing for small to medium enterprises, and AI-powered chatbots to provide customer service to OIC users of Islamic and ethical fintechs.



3. Transformation

As disruptive themes and trends such as AI, robotics and electric vehicles continue to transform and disrupt various sectors and industries, the report will explore what role Islamic finance can play, as both a catalyst for disruption and an industry which itself is being disrupted by the sea changes in financial services, such as the shifts towards more ESG investments and more inclusive capitalism. Potential use cases for Islamic finance to help fund transformation programs include long-term finance, such as sukuk.



4. Inequality

In Islamic finance, there is the prohibition of hoarding of wealth (kanz), and money is meant to be a medium of exchange that is regularly circulated across the economy, rather than a commodity to be stored excessively. To that end, redistributive mechanisms in Islamic social finance are an increasingly prominent part of the quest for a more equitable distribution of wealth across all strata of society, through instruments such as Zakat, Awqaf and Sadaqah.



5. Youth

Young Muslim consumers are coming to the fore in OIC countries. In addition to Gen Z, Muslim Millennials have grown more visible as well. These are young, digital-savvy Muslim consumers who seek to actively align their faith values with their financial practices. For example, they are more likely to spend on modest fashion, have Shariah-compliant or ethical bank accounts, and opt for Muslim-friendly tourism, indicating a degree of prominence for the Islamic economy amongst Muslim Millennials. Potential Islamic finance solutions include Islamic fintech products and services, as well as Islamic banking use cases.



6. Ageing societies

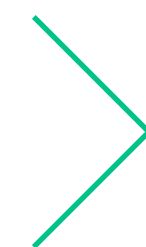
One of the major disruptions occurring today is population ageing, including in major OIC markets such as Malaysia. Yet savings are often inadequate for retirees to live on. The report will outline how Shariah-compliant pensions may help retirees and those approaching retirement save for their old age in a manner compatible with their values, thus helping to avert a looming pensions crisis in OIC markets. Potential use cases for Islamic finance include Shariah-compliant occupational and defined contribution (DC) pensions.

OIC IN 2030: OIC NATIONS SHOULD STRIVE FOR AMBITIOUS TARGETS THAT ACTION ON MEGATRENDS CAN MOVE THE NEEDLE ON – SUCH AS '20:30:40':

Society: 20% of Income distribution to bottom 50% – currently 14%

Economy: 30% of global GDP (by PPP) – currently at 22%

Technology: 40 unicorns – currently at eight



POTENTIALLY TRANSFORMING OIC MARKETS AND MUSLIM CONSUMERS OVER THE NEXT DECADE

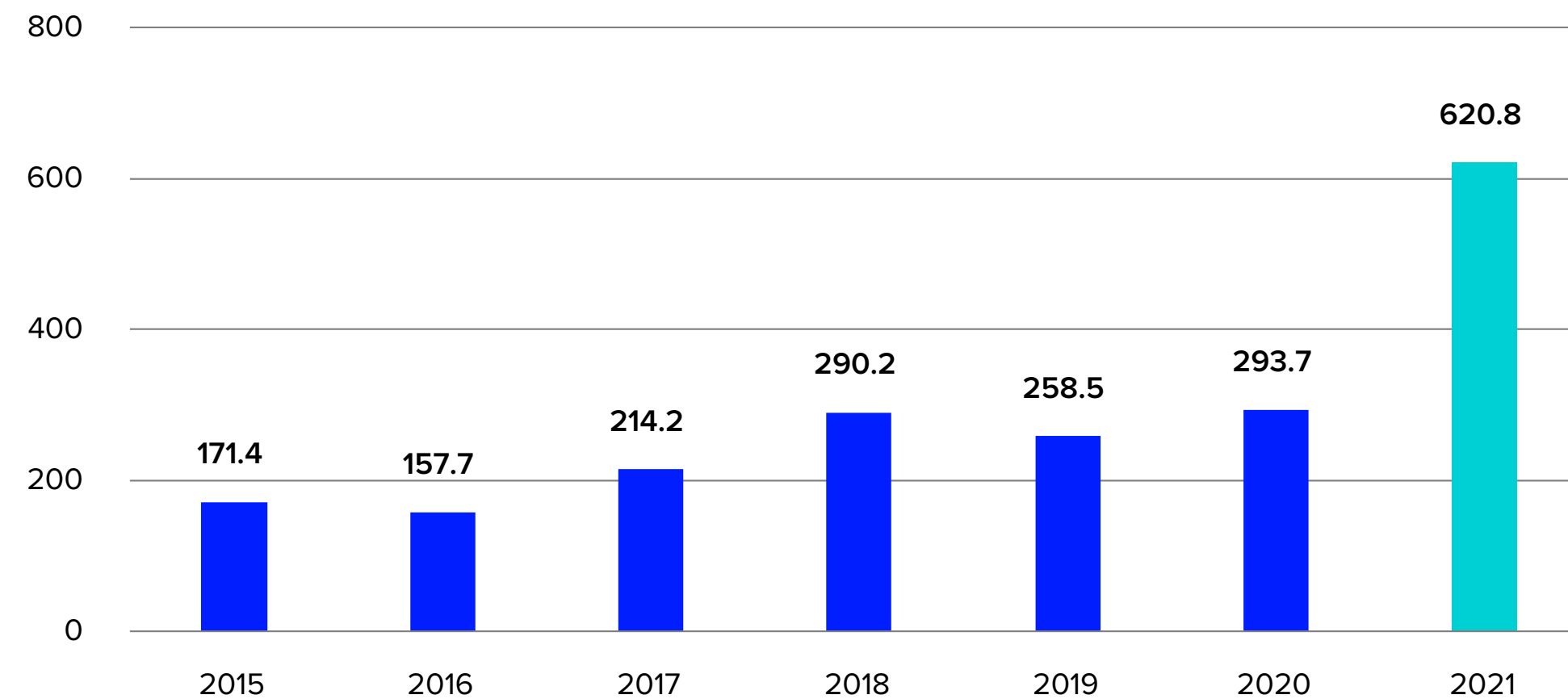
1: DIGITALISATION

With abundant VC funding across sectors, digitalisation is transforming the way the world operates

The situation

Digitalisation is transforming the way the world operates. Industries are either disrupting or being disrupted by the fragmentation of their landscapes and value chains, with new players threatening incumbents in notable ways. Global venture funding more than doubled in the past year alone, from \$293.7 billion in 2020 to \$620.8 billion in 2021, according to data from CB Insights. With abundant VC across sectors, technology continues to be one of the defining stories of our time. Notably, investments in high-impact sectors are fast disrupting the traditional methods of delivering products and services, such as fintech, digital healthcare, and retail tech. These three sectors collectively received almost half (48%) of total venture funding in 2021.

Global venture funding, 2015-2021 (US\$ bn)

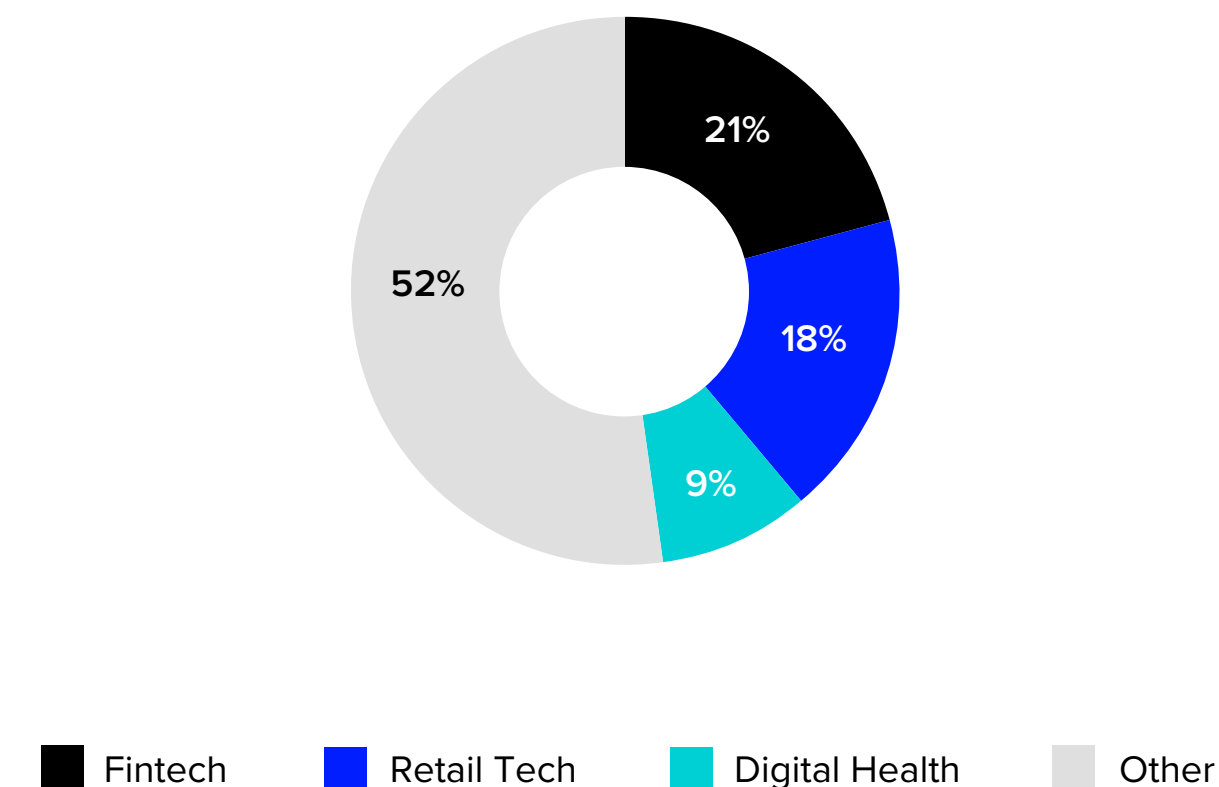


Source: CB Insights

Why it matters

The rise of digital payments, which has disrupted the traditional ecosystem and opened market entry for local and global players, including for mobile money and e-wallets, remittance and payment aggregation, is illustrative of the sea change that is challenging traditional financial institutions. Payments are no longer the exclusive domain of pureplay financial services firms, and with the rise of open banking and open finance, this development could be a sign of things to come across other financial services segments as well. Consumers, especially the younger demographics, are adapting and responding to the proliferation in product choices by becoming savvy bargain hunters. At the same time, they seek out personalised experiences and demand excellent service across all touchpoints of the omnichannel customer journey.

Companies: Three high-impact sectors receive 48% of total venture funding in 2021



Source: CB Insights/Refinitiv analysis

OIC markets collectively lag the latest developments, but some key Islamic finance jurisdictions are developing best-in-class capabilities

Impact on OIC markets

Most countries that are leading on automation readiness are non-Muslim majority, and the member states of the Organisation of Islamic Cooperation (OIC) are lagging in their uptake of the latest developments to respond to the challenges of automation. The only Muslim-majority country classified as either 'mature' or 'developed' (the top two categories) on the EIU's Automation Readiness Index in 2018 (a one-off Index) was the UAE. The other Muslim countries – Malaysia, Turkey, Saudi Arabia and Indonesia – were listed in the emerging category, and all scored below the global average.

Moreover, in the 2021 Global Innovation Index (GII), only three out of the top 50 countries were Muslim-majority: UAE, Malaysia and Turkey. There were no Muslim-majority countries in the top 30. The OIC leaders on the GII scored particularly well in the Automation Index on start-up support, data protection and citizens' use of data – all indicative of an advanced, strategic approach to data in these countries. These and other global index rankings point towards a similar story: that OIC countries are currently not at the forefront of innovation and disruption, and that, whilst a select few are advancing on these fronts (such as UAE, Malaysia, Turkey, Saudi Arabia), progress within the OIC as a whole varies widely, with Muslim-majority countries in danger of being left behind by digitalisation unless they act.



EIU's Automation Readiness Index

Rank	Country	Score
	Average	62.1
1	South Korea	91.3
2	Germany	89.6
3	Singapore	87.3
4	Japan	82.6
5	Canada	81.8
6	Estonia	79.5
7	France	78.9
8	UK	73.1
9	US	72
10	Australia	70.4
11	Italy	67.5
12	China	67.1
13	UAE	64.3
14	Malaysia	57.7
15	Turkey	53.7
16	Russia	52.5
17	Argentina	51.7
18	India	47.2
19	Brazil	46.4
20	Colombia	44.7
21	Saudi Arabia	42
22	South Africa	41
23	Mexico	40.7
24	Vietnam	37.3
25	Indonesia	33.1

Source: EIU

2021 Global Innovation Index (GII)

Rank	Country	Score
1	Switzerland	65.5
2	Sweden	63.1
3	US	61.3
4	UK	59.8
5	South Korea	59.3
6	Netherlands	58.6
7	Finland	58.4
8	Singapore	57.8
9	Denmark	57.3
10	Germany	57.3
11	France	55
12	China	54.8
13	Japan	54.5
14	Hong Kong, China	53.7
15	Israel	53.4
16	Canada	53.1
17	Iceland	51.8
18	Austria	50.9
19	Ireland	50.7
20	Norway	50.4
21	Estonia	49.9
22	Belgium	49.2
23	Luxembourg	49
24	Czech Republic	49
25	Australia	48.3

Source: GIJ

Rank	Country	Score
26	New Zealand	47.5
27	Malta	47.1
28	Cyprus	46.7
29	Italy	45.7
30	Spain	45.4
31	Portugal	44.2
32	Slovenia	44.1
33	UAE	43
34	Hungary	42.7
35	Bulgaria	42.4
36	Malaysia	41.9
37	Slovakia	40.2
38	Latvia	40
39	Lithuania	39.9
40	Poland	39.9
41	Turkey	38.3
42	Croatia	37.3
43	Thailand	37.2
44	Vietnam	37
45	Russia	36.6
46	India	36.4
47	Greece	36.3
48	Romania	35.6
49	Ukraine	35.6
50	Montenegro	35.4

Enablers are helping to enhance OIC entrepreneurial ecosystems, but more Shariah-compliant VC and PE funding is needed

Islamic finance solutions

A growing ecosystem of Islamic economy enablers is helping to foster OIC-based entrepreneurial talents as well as Muslim-led start-ups in non-OIC countries.

These include advisory firms, legal and regulatory enablers, financial institutions, technology firms and other supporting institutions.

There is also an increasing number of incubators and accelerators that are helping to enable and enhance OIC entrepreneurial ecosystems. Some examples with a focus on key OIC and Muslim markets include venture capital providers such as Mountain Partners (Malaysia) and UK-based GroundOne Ventures and Bedford Row Capital; incubators and accelerators such as GoodForce Labs (UAE), FIKRA (Malaysia), and Albaraka Garaj (Turkey); and other enablers such UAE-based FinX22, which provides an OpenAPI platform for testing and deploying fintech solutions. Moreover, there are also national fintech incubators and accelerators in the GCC, Southeast Asia and South Asia that are not explicitly Islamic fintech-focused in their missions, but nonetheless support the growth of selected Islamic fintechs within the wider ecosystem.

However, given that funding is the most common challenge faced by Islamic fintechs, more Shariah-compliant VC and PE funding is needed globally to help Islamic fintechs and other Shariah-compliant start-ups across a wide variety of sectors to develop initially and eventually scale up into global propositions. Also, it is important to note that there has not been much activity from several of the incubators and accelerators mentioned above.

OIC enablers



Source: IFN

Here are some prominent examples of ecosystem enablers and providers of Shariah-compliant VC and PE

Islamic economy enabler: FIKRA

Purpose: The FIKRA Islamic Fintech Accelerator Programme was initiated by the Securities Commission of Malaysia and the UN Capital Development Fund (UNCDF). It aims to identify and scale different fintech solutions locally to enhance the Islamic capital market. It includes masterclasses, mentoring and showcase opportunities.

Impact: Showcases were presented by seven FIKRA participants during a conference in October 2021.

FIKRA

Islamic economy enabler: Albaraka Garaj

Purpose: The Turkey-based start-up acceleration centre, backed by Islamic bank Albaraka Türk, supports technology-based businesses and projects focused on finance or other sectors. The accelerator facilitates businesses' collaborations with investors, and provides them work areas and consultation.

Impact: More than 50 entrepreneurs have graduated from the acceleration program.



Islamic VCs: IFG.VC angel network and Gulf Islamic Investments (GII)

Purpose: IFG.VC is an Islamic syndicate platform that connects start-ups to investments. It helps Muslim entrepreneurs at the early stage of their start-ups, from Seed through Series A. GII is a UAE-based Shariah-compliant financial services provider that offers VC as part of its portfolio. It focuses on high-growth sectors like big data and analytics. It also offers PE.

Impact: IFG.VC has 1,500 angels in its network and invested over £4.5 million in start-ups since its inception in 2018. Most of the start-ups are based in the UK and US. GII has \$260 million in assets under management in venture capital. Amongst its portfolio is a leading e-commerce platform in the Middle East, Mumzworld.



Islamic PE: Ethos Invest

Purpose: The UK-based company focuses on financial services and technology to build long-term value for its stakeholders.

Impact: The company in mid-2021 announced plans for a £1 billion fund, Ethos Fund 1, for PE investments in Islamic and ethical SMEs. It targets sectors such as financial services, blockchain, robotics and artificial intelligence.



2: AI

AI is dramatically changing how the world works but it is still unclear whether it will enhance and/or restrict human potential

The situation

AI technologies, such as machine learning (ML), computer vision and data analytics, are already transforming the nature and future of work for humans. There are now ample examples of innovative use cases showing how AI technologies lead to increased productivity, reduced costs and greater accuracy and efficiency in various processes.

Sector	Typical AI use cases	AI technologies used
Banking	<ul style="list-style-type: none"> – Identify fraudulent payments – Automate customer service telephone conversations – Verify callers' identity 	<ul style="list-style-type: none"> – Automated fraud detection systems – Speech recognition technology – Voice recognition technology
Healthcare	<ul style="list-style-type: none"> – Transcribe doctors' notes – Analyse mammograms and other medical images – Synthesise medical literature – Automate diagnoses 	<ul style="list-style-type: none"> – Automatic speech recognition – Computer vision systems – Natural language processing (NLP) – Hypothesis generation techniques – Machine learning (ML) systems
Life sciences	<ul style="list-style-type: none"> – Predict cause-and-effect relationships from biological data and the activities of compounds – Help pharmaceutical companies identify promising drugs 	<ul style="list-style-type: none"> – Machine learning (ML) systems
Media and entertainment	<ul style="list-style-type: none"> – Draft articles and other narrative material about data-focused topics, e.g., corporate earnings or sports game summaries 	<ul style="list-style-type: none"> – Data analytics – Natural language generation technology

Source: Deloitte

Why it matters

However, AI may also restrict human potential to some extent by making people more dependent on technology than ever. The ubiquitous nature of technology also raises privacy concerns for individuals, societal concerns around the spread of consumerism and 'affluenza', as well as perhaps the greatest concern for many: the automation of existing jobs, especially if it exceeds job creation efforts and leads to a net unemployment effect globally.

Consequently, discussions around solutions such as a universal basic income are becoming more widespread as well.

Sector	Typical AI use cases	AI technologies used
Oil and gas producers	<ul style="list-style-type: none"> – Locate mineral deposits – Diagnose mechanical problems with drilling equipment 	<ul style="list-style-type: none"> – Machine learning (ML) systems
Public Sector	<ul style="list-style-type: none"> – Conduct surveillance – Carry out compliance and fraud detection – Increase automation 	<ul style="list-style-type: none"> – Automated handwriting recognition – AI-based surveillance and computer vision systems – Automated fraud detection systems
Retailers	<ul style="list-style-type: none"> – Discover attractive cross-sell offers and effective promotions 	<ul style="list-style-type: none"> – Machine learning (ML) system
Technology companies	<ul style="list-style-type: none"> – Enhance products or create entirely new product categories, e.g., Roomba robotic vacuum cleaner, Nest intelligent thermostat 	<ul style="list-style-type: none"> – Machine learning (ML) systems – Computer vision systems

Source: Deloitte

OIC markets vary widely in their readiness for automation – more intra-OIC cooperation is needed between leading and late adoption nations

Impact on OIC markets

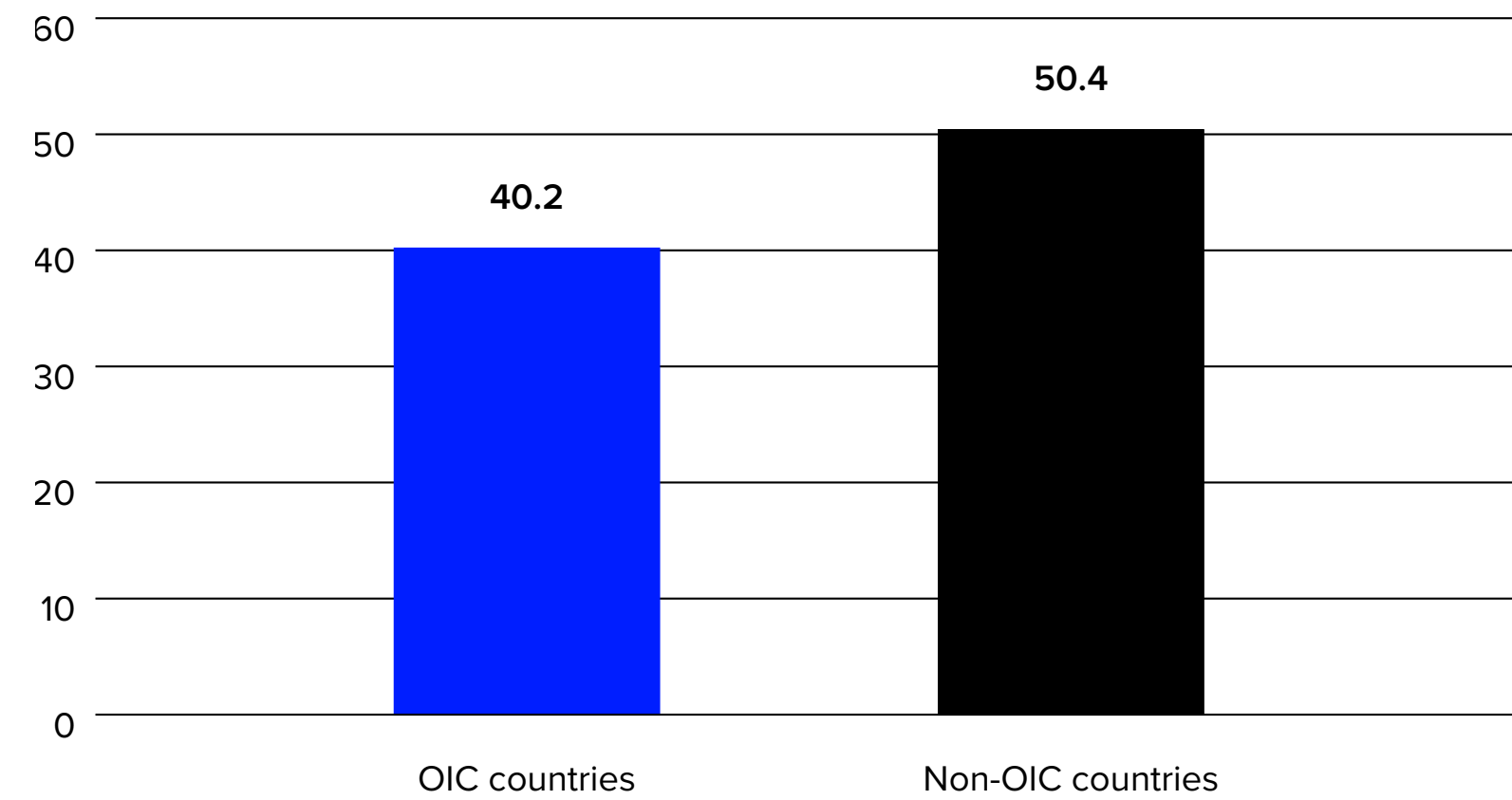
As the Global AI Readiness Index 2021 shows, OIC markets vary widely in their readiness for automation. OIC countries UAE and Qatar are in the Top 30 globally but other OIC countries rank at 34 and below. Moreover, the average scores for OIC countries are significantly lower than that for non-OIC countries. One of the potential solutions to this situation is increased intra-OIC cooperation between the leading OIC nations and the late adopters. Countries such as UAE, Qatar, Saudi Arabia, and Malaysia can help bridge the gap in AI readiness for other OIC countries. Another solution is to engage in knowledge transfers and exchanges with leading non-OIC hubs and countries to help narrow the gap.

Government AI Readiness Index 2021

Overall rank	Top 10 Non-OIC Countries	Overall rank	Top 10 OIC Countries
1	USA	19	UAE
2	Singapore	26	Qatar
3	UK	34	Saudi Arabia
4	Finland	36	Malaysia
5	Netherlands	47	Indonesia
6	Sweden	49	Oman
7	Canada	53	Turkey
8	Denmark	55	Bahrain
9	Germany	57	Brunei
10	South Korea	63	Kuwait

Source: Government AI Readiness Ranking 2021

Government AI Readiness Index score 2021: OIC vs Non-OIC countries (average overall score, out of 100)



Source: Oxford Insights/ Refinitiv Analysis

For OIC governments, AI and automation have deep implications for citizens; for industry, AI-rich platforms provide novel solutions to problems

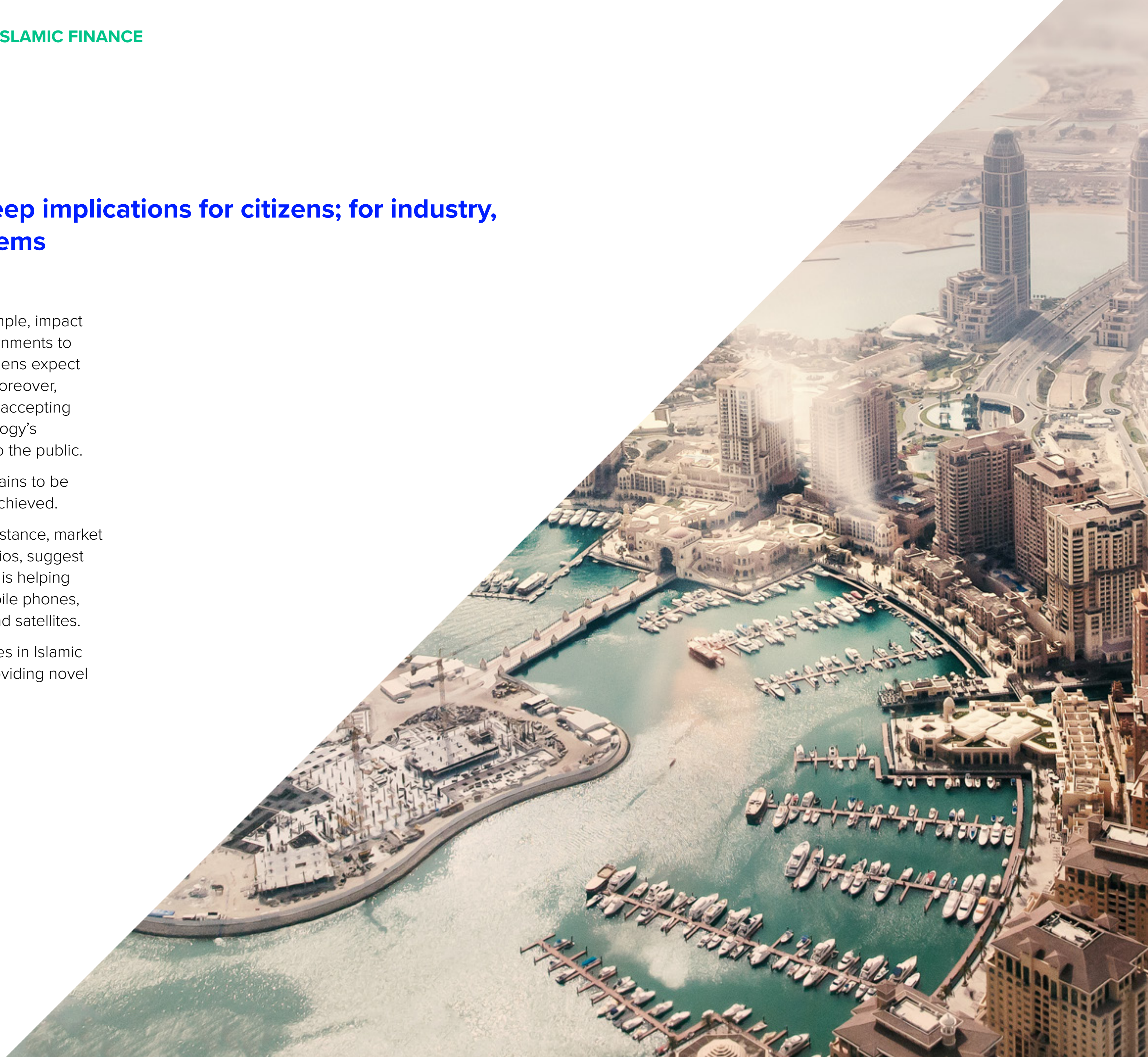
Islamic finance solutions

For OIC governments, AI and automation have deep implications for citizens, for example, impact on employment prospects and privacy implications. As such, it is critical for OIC governments to articulate their national AI strategies so that there is clarity on what OIC countries' citizens expect from AI and what they are willing to give up in return, such as certain privacy rights. Moreover, the picture for citizens' relationship with AI and automation is more nuanced than just accepting or rejecting such technologies. Involving citizens at the earlier stages of an AI technology's development would help ensure the application of such a technology is acceptable to the public.

Some OIC governments have adopted national AI strategies and initiatives, but it remains to be seen how well these will be implemented and how far the strategies' targets will be achieved.

For industry, AI-rich platforms are providing novel solutions to existing problems. For instance, market intermediaries and asset managers are using AI and ML techniques to optimise portfolios, suggest investment recommendations and improve internal back-office functions. Moreover, AI is helping to generate alternative data that can be used for credit scoring, such as data from mobile phones, social networks, utilities and telecoms payments, rental payments, facial recognition and satellites.

Considering these developments, Islamic fintech and the application of AI technologies in Islamic finance will have a crucial role to play in navigating governments' concerns, whilst providing novel solutions to existing problems across industries in a Shariah-compliant manner.



AI INITIATIVES BY OIC GOVERNMENTS: THE NUMBERS

These countries all also have national AI strategies

18 Turkey



9 UAE



8 Tunisia



7 Egypt



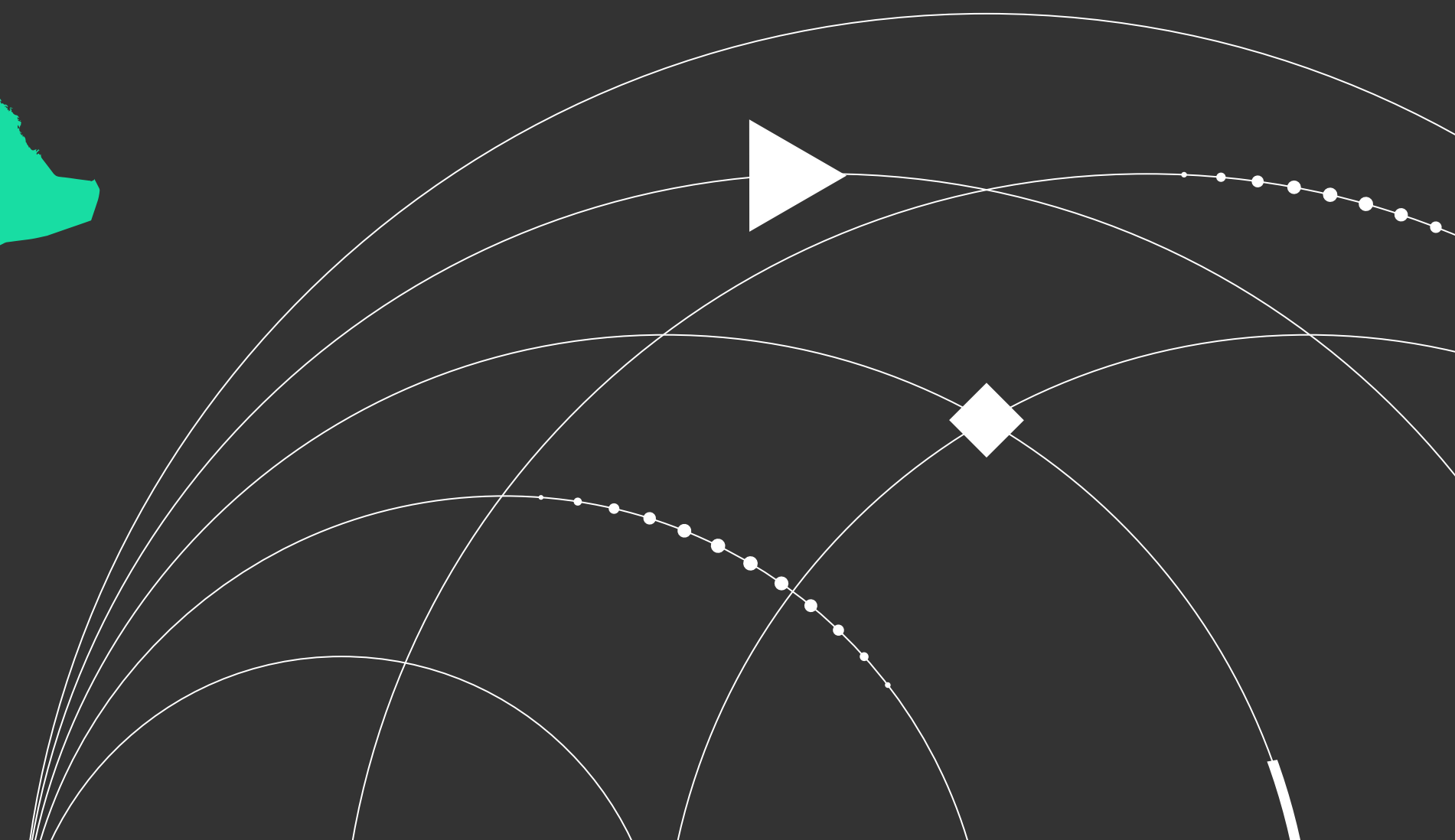
7 Kazakhstan



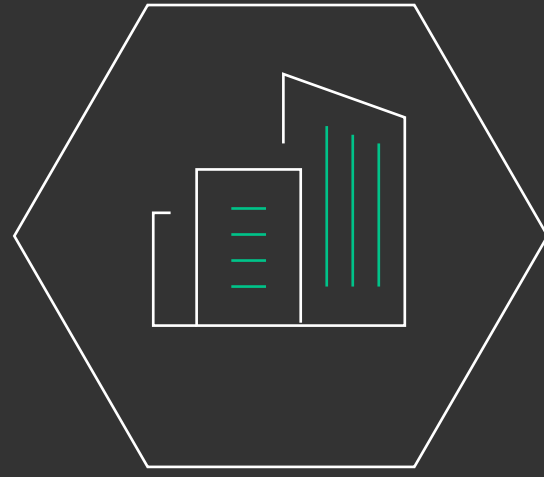
4 Morocco



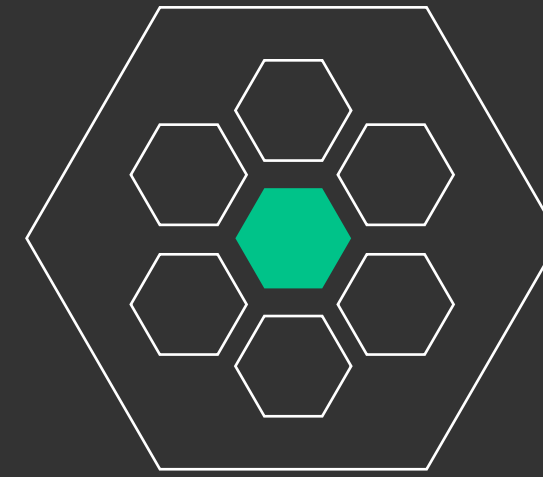
5 Saudi Arabia



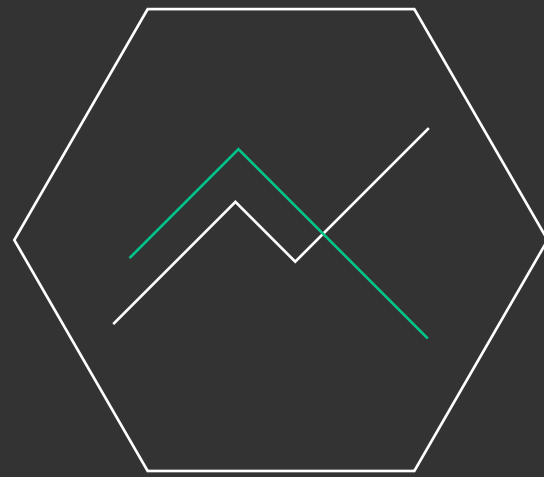
AI AND TRADITIONAL FINANCIAL SERVICES: THE NUMBERS



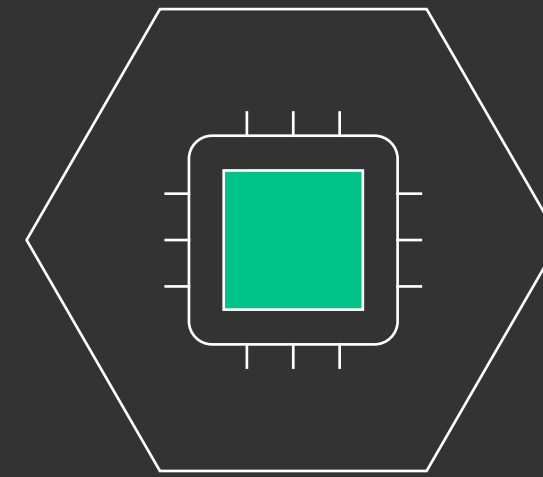
\$1 trillion
savings by 2030
using AI in financial services



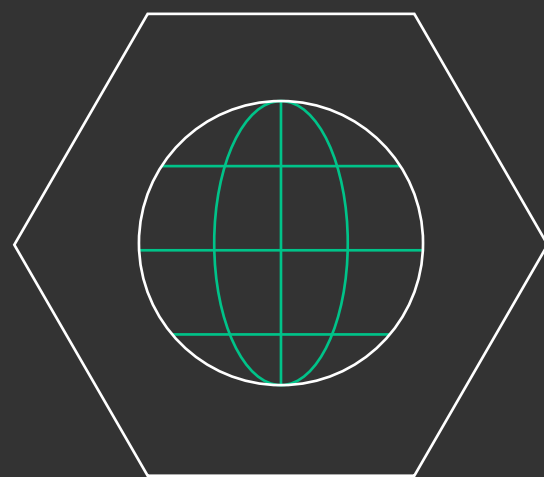
\$350 billion
middle-office savings
by 2030 via AI usage



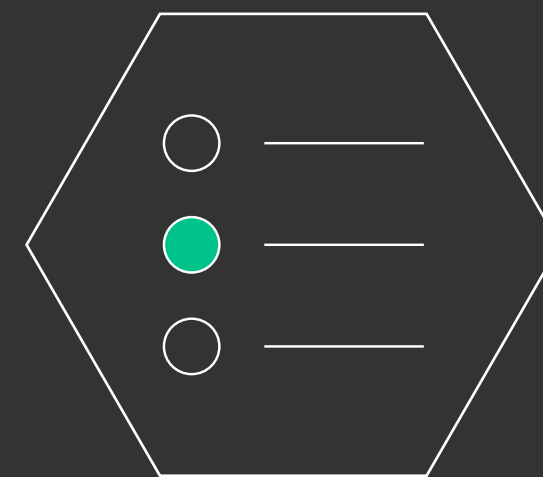
\$490 billion
front-office savings
by 2030 via AI usage



\$10 billion
AI firms' AUM
in 2017



2,000
risks analysed daily by
Blackrock's Aladdin tool



\$200 billion
back-office savings
by 2030 via AI usage

More use cases emerging from both Islamic banks and Islamic fintechs, resulting in greater customer-centricity and embedded Islamic finance

Improving customer interactions

There are some examples of banks using AI to ensure that consumers are receiving the best customer service through chatbots.

An Islamic bank using this technology is Qatar Islamic Bank, whose virtual assistant 'Zaki' uses algorithms and AI. This allows consumers to make several requests like updating personal data via the assistant.



Opening accounts through facial recognition

Banks are also embracing biometrics to serve their consumers, which is an emerging trend based on AI.

Abu Dhabi Islamic Bank, for instance, is the first bank in the UAE that started using facial recognition for account opening. This uses secure access to the country's Ministry of Interior Facial Recognition verification system. Through this, users will have instant access to the account without the need to visit any bank branches.



Robo-advisory in Islamic Wealth Management

Contemporary robo-advisors are disrupting traditional methods of wealth management. They are part of, and address, the tech-native millennial and Gen Z demographics that prefer to transact online instead of face-to-face and demand instant service at their fingertips. The digitalisation of wealth management also lowers premium costs associated with human advisors. This is provided by some Islamic fintechs such as Sarwa (UAE), Wahed Invest (based in US) and Algebra.

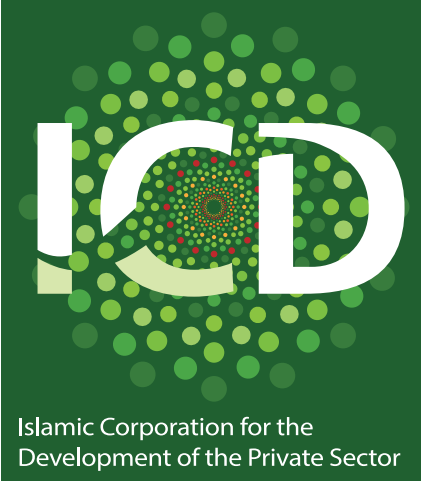
ALGEBRA

sarwa

Wahed



Digital Economy Enabler in member countries



Member of the Islamic
Development Bank Group



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3: TRANSFORMATION

Sectoral transformations are now ubiquitous, metamorphosing economies and creating new frontiers for innovation – disruption is a key catalyst

The situation

Disruptive themes are affecting traditional economic sectors in significant ways. These disruptions are already underway across several sectors, metamorphosing economies and creating new frontiers for innovation. The hand of disruption's catalytic effect is evident in the rise of these 'new economy' themes, which share a focus on innovation and disrupting incumbent thinking on how business operates. Some of these new themes include robotics and AI, genomics and longevity, cloud computing and IoT (Internet of Things) – in other words, 'thematic industries' centred around a certain theme that can and often do cut across multiple sectors. Disrupted sectors include manufacturing, medicine, agriculture, transport, medicine and healthcare, and housing, amongst others.

Why it matters

Whilst innovation and disruption are not new in the business cycle, the prominence of disruption from the late 2010s is noteworthy for three reasons. First, the scale and pace of the disruptions are collectively leading to the rise of the 'new economy', where consumers are now engaging with embedded finance, augmented reality and assisted driving or autonomous vehicles in ways that were unheard of 10 years ago. Second, the rise of 'thematic industries' is transforming whole swathes of the economy by promoting new synergies and collaborations across previously siloed environments. Third, thematic industries themselves have emerged as bona fide investment themes, as evidenced by the steep rise in thematic ETFs' AUM and total number. Whilst the story of the 'new economy' is still being written, it is reasonable to assume disruption will be a regular feature.

Theme	Sectors disrupted	Market size (2022f)
Robotics and AI	Manufacturing, medicine, agriculture, transport	\$210bn and \$22.6bn
Genomics and longevity	Medicine and healthcare	\$25.5bn (genomics)
Cloud computing and IoT	Housing, robotics, transport promotions	\$323.4bn (cloud computing)
Fintech	Financial services	\$380bn
BatteryTech (Lithium-ion)	Transport	\$94.4bn (2025f)
Millennials	Consumer discretionary	20% of world's population (2019)

See Sources in Appendix

Tech-enabled disruption has reached Islamic financial services, with the potential to transform OIC economies – but partnerships are also needed

Islamic finance solutions

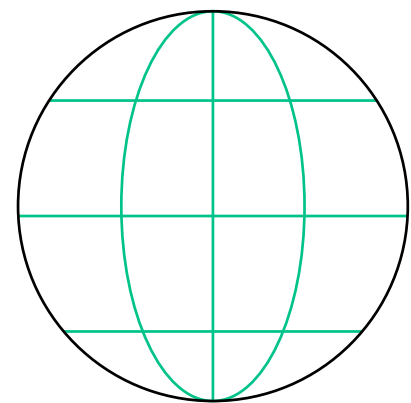
Tech-enabled disruption has reached Islamic financial services as well. It has the potential to transform OIC economies by increasing financial inclusion via new channels that give consumers access to solutions across the lifecycle of their financial needs. However, Islamic fintech is still at a relatively nascent stage, and partnerships with incumbent Islamic banks are still key to developing the ecosystem further. Evidence from conventional finance and fintech suggests that partnerships are key to corporate and investment banking. Moreover, data from McKinsey Global Institute suggests that digital finance in the developing world may have a significant impact on those economies, including several OIC nations.

Digital finance: the numbers

Digital finance in the developing world could have a great impact



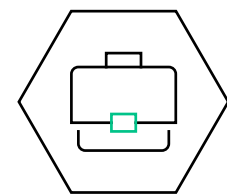
\$3.7 trillion
(6%) GDP boost by 2025



1.6 billion
newly included individuals

\$4.2 trillion
in new deposits

\$110 billion
annual reduction in
government leakage



95 million
new jobs

\$2.1 trillion
in new credit

Source: McKinsey & Company

Partnerships are key in conventional banking and finance

In corporate and investment banking, fewer than 12% of fintech solutions are trying to disrupt existing business models.

The numbers in the table below represent the percentage of fintech solutions available, by disruptiveness and technology trends¹

	Automation		Biometrics/ cybersecurity		Others ³		Total
	Blockchain	Big data analytics	Cloud/SaaS ²	Cloud/SaaS ²	Cloud/SaaS ²	Cloud/SaaS ²	
Disruptive	6.0	2.7	0.4	0.2	1.8	0.4	11.5
Client disintermediation	0.0	5.3	2.9	2.0	7.3	3.5	21.1
Process improvement	6.4	8.9	19.5	10.2	19.3	3.1	67.4
Total	12.4	16.9	22.8	12.4	28.4	7.1	100.0

Cumulative fintech funding, \$ million

■ >\$1,000
 ■ \$500-\$1,000
 ■ \$100-\$500
 ■ <\$100

¹ Based on sample of more than 390 corporate-and-investment-banking solutions in McKinsey's Panorama FinTech database; might not be representative. Figures may not sum, because of rounding.

² Software as a service.

³ Includes payments, rewards solutions, exchange platforms for corporats, consulting and others.

Source: Panorama FinTech, a McKinsey Solution

Islamic banks are not immune to increasing non-financial risks; the dawn of disruption invites re-thinking old economic paradigms

Impact on OIC markets

According to CIBAFI's 2021 survey, four of the top 10 risks for Islamic banks were non-financial, indicating the growing interplay between megatrends and the risks they pose to these financial institutions.

Moreover, the unprecedented macroeconomic environment, with continued historic low interest rates, supply chain gluts and risk of stagflation, along with the dawn of widespread industry disruption, invites us to re-think old economic paradigms.

Top 10 risks for islamic banks: CIBAFI global islamic banking risk

Dashboard 2021	
1	Risk related to extreme disruptive events such as pandemic
2	Credit risk
3	Cybersecurity risk
4	Technology risk
5	Liquidity risk
6	Collateral risk (the risk of loss arising from the quantity, pricing, or characteristics of collateral)
7	Foreign exchange risk
8	Rate of return risk
9	Money laundering and financing of terrorism risk
10	Strategic risk

■ Non-financial risk ■ Financial risk

Source: CIBAFI

Potential economic paradigm shifts

20th century paradigms	21th century paradigms
GDP	'Doughnut'
Self-contained market	Embedded economy
Rational economy man	Social adaptable humans
Mechanical equilibrium	Dynamic complexity
"Growth will even it up again"	Distributive by design
"Growth will clean it up again"	Regenerative by design
Growth addicted	Growth agnostic

Source: Doughnut Economics

Islamic fintech solutions may in time substantially capture demand in OIC and ethical markets – but the industry ecosystem is still nascent and scale needed

Cryptocurrencies

Purpose: Islamic fintechs are involved in the global growth of digital assets such as cryptocurrencies. Shariah-certified Rain and Fasset are key examples. Both regulated, Rain simplifies the process of digital asset trading and Fasset provides tokenisation and a financing platform for sustainable infrastructure assets.

Impact: The popularity of such platforms is clear. For instance, the Bahrain crypto exchange, Rain, saw 20 times growth in trading volume in the first six months of 2021. The UK-based Fasset made the first proof-of-concept tokenisation of a hard asset in the Middle East, with a Tesla Supercharger charging unit as the hard asset.



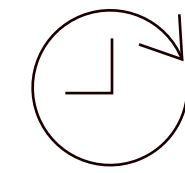
Islamic social finance

Purpose: The role of fintech in Islamic social finance can be exemplified in Global Sadaqah. It is a CSR management platform that works with stakeholders such as religious bodies and banks. It features Zakat and Waqf campaigns from verified partners that are approved by its Shariah board.

Impact: The platform raised MYR4.36 million for beneficiaries in 2021 compared to 2020's MYR1.82 million. There was a fivefold growth in the number of active donors and the number of donations rose by 4.5 times.

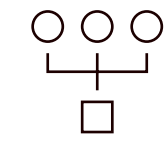


A tech-enabled Islamic finance solution – Refinitiv's Islamic Deal Connect (IDC): key features



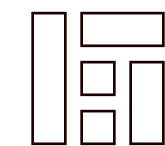
Automation and digitalisation

Digital transformation of money market operations enables process automation and enhances agility across all parties.



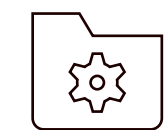
Efficiency

Integration with FXT, Dealing TMs and Broker OMS systems of Islamic Deals enhances end-to-end efficiency of trading workflows, resulting in lower cost per transaction.



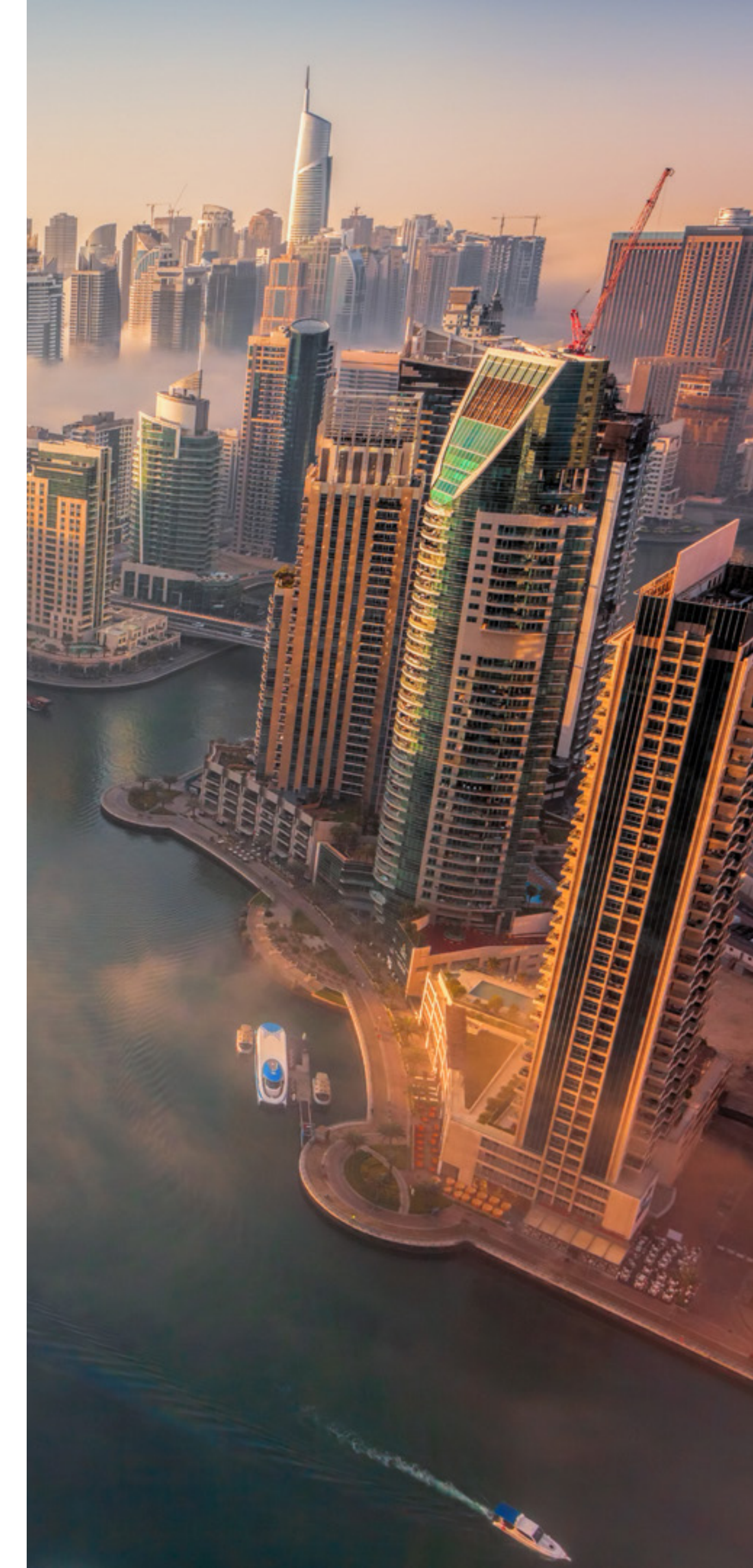
Lower TCO

Leveraging a single application integrating multiple disparate tools lowers the cost of operating and maintaining multiple concurrent systems.



Regulatory and compliance coverage

The ability to track and archive information around deals, from ideation to clearing, ensures full coverage from a regulatory and compliance perspective.



4: INEQUALITY

Inequality is growing, creating inequity in health and education outcomes globally, and entrenching societal problems

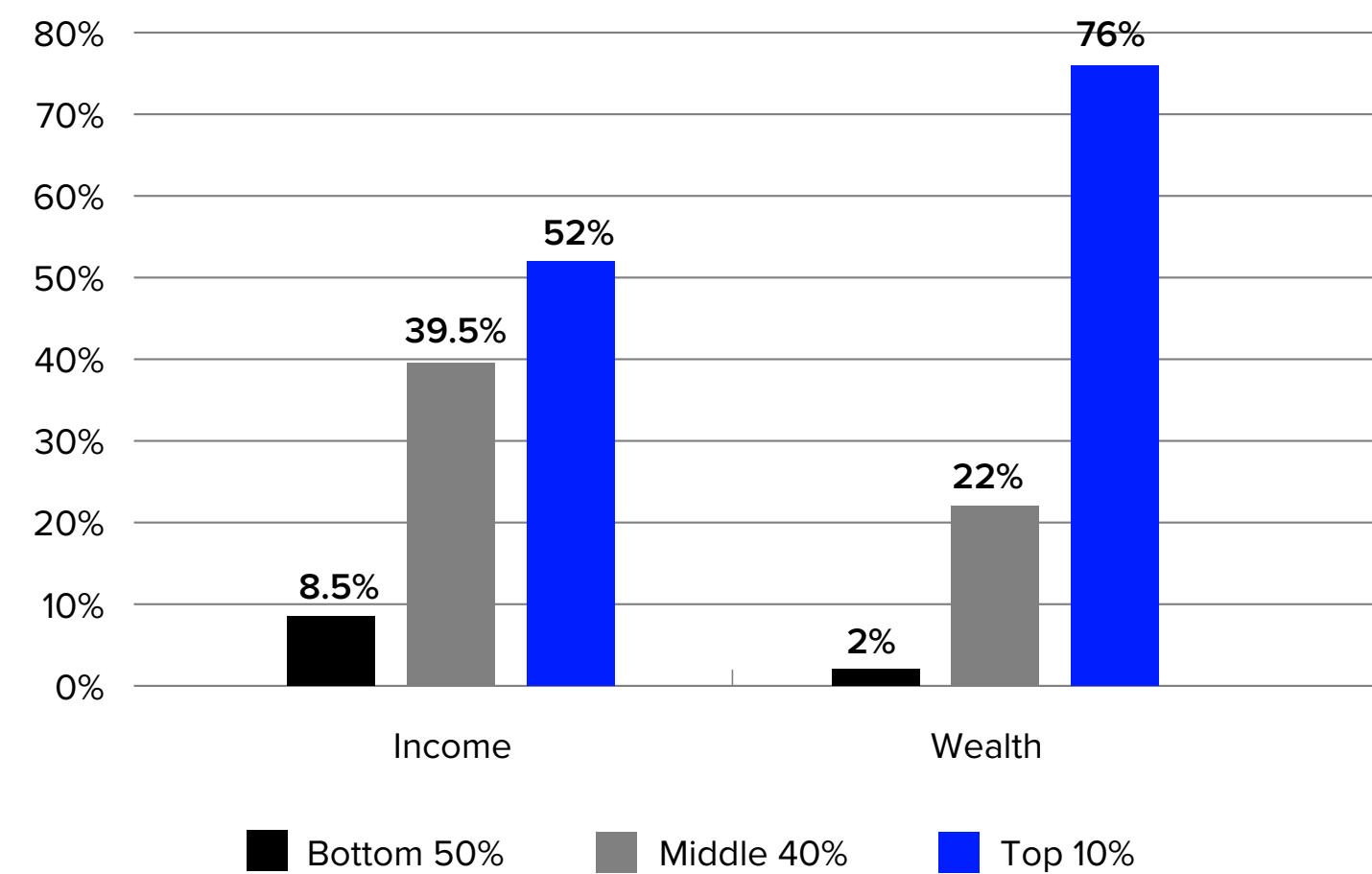
The situation

Inequality across and within countries has grown. According to the UN's World Social Report 2020, over 70% of the world's population lives in countries with an increasing wealth gap. Also, longitudinal data from 1990 to 2015 shows that the top 1% of the global population's share of income rose in 46 out of 57 countries where data was available, whilst in over half of 92 countries with data, the bottom 40% of society had less than 25% of overall income. In fact, global income inequality has risen to such dramatic proportions that in 2020, the world's 2,153 billionaires had more wealth than 4.6 billion people, who account for 60% of the world's population. Also, according to the Credit Suisse Global Wealth Report 2020, the world's richest 1% – defined as those with over \$1 million – own 43.4% of global wealth. This trend is not surprising, as it has been prevalent for several years: average global shared prosperity, which the World Bank defines as growth in the bottom 40% of a population's incomes, was just 2.3% for the period 2012 to 2017, and only 53 out of 91 countries with data for 2012 to 2017 displayed a 'positive shared prosperity premium', which is to say that growth had benefited the poorest more than the overall population.

Why it matters

Collectively, these facts and figures on global wealth and income inequality point to this megatrend increasing in magnitude. The situation has been exacerbated by the ongoing Covid-19 pandemic. Moreover, wealth and income inequality are at the heart of global inequality, and create conditions for other inequalities to play out, such as in health and education outcomes, as measured by key indicators such as mortality rates, life expectancy, and average and expected years of schooling. As the Julius Baer Foundation notes: "Wealth inequality is one of the most significant challenges of modern times. It can lead to unequal societies, social instability, violence and unrest, and further societal problems that affect the world at large." Consequently, rising wealth and income inequality is an issue needing both imminent solutions and more long-term solutions to tackle their root causes.

Global income and wealth distributions, 2021



Source: World Inequality Database



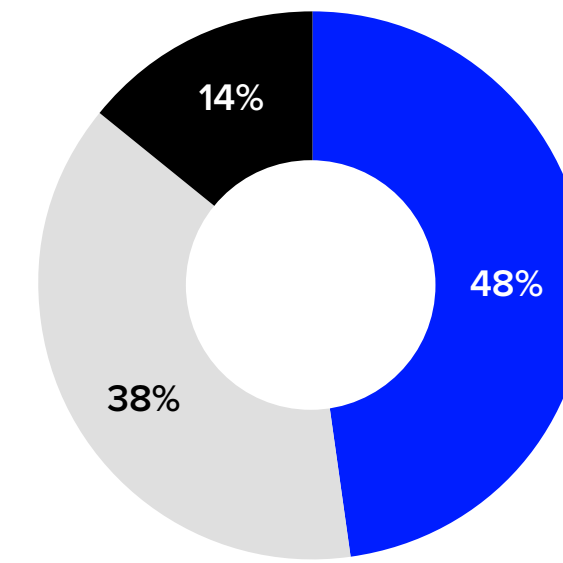
OIC markets are particularly at risk of lower shared prosperity

Impact on OIC Markets

As the World Bank notes, positive shared prosperity premiums are lower on average in fragile and low-income economies, compared with middle-income economies. Many OIC countries fall into the fragile and low-income categories, making wealth and income inequality an especially pressing issue for them.

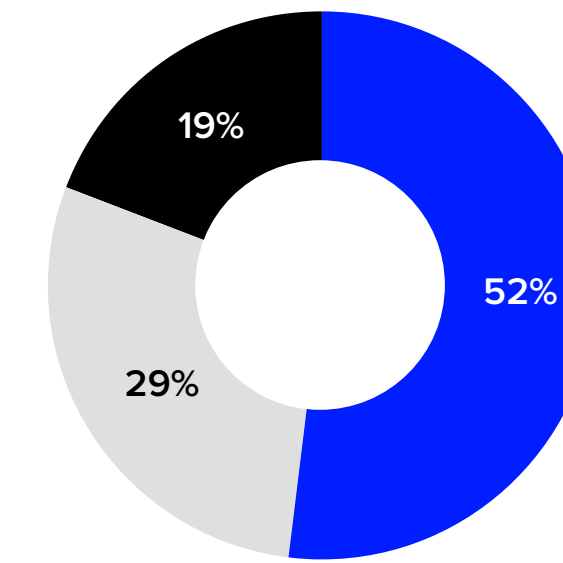
Having said that, surprisingly, the latest data from the World Inequality Database (2021 data) suggest that wealth inequality, as measured by wealth distribution for the Muslim-majority countries is lower on average than the global average. Nonetheless, regional variances exist, for example in the GCC countries, wealth inequality is more pronounced than the global average, while in Southeast Asian OIC countries (Malaysia, Indonesia and Brunei collectively) it is lower than the global average. Given these datapoints, it is safe to assume that over time, growing wealth and income inequality will lead to wider wealth disparities.

OIC: wealth distribution (2021)



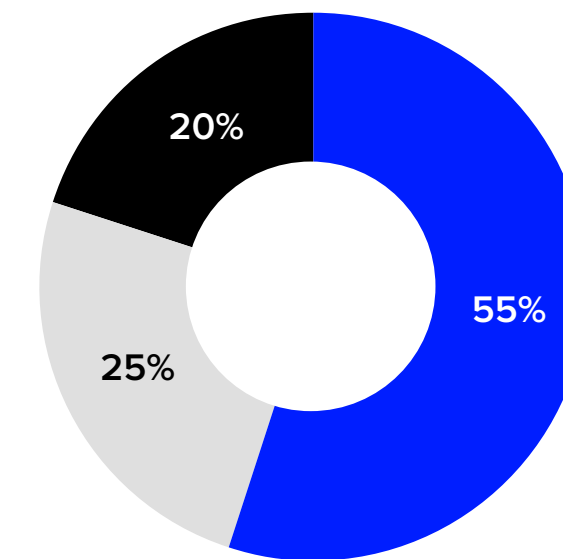
■ Top 10% ■ Middle 40% ■ Bottom 50%

World: wealth distribution (2021)



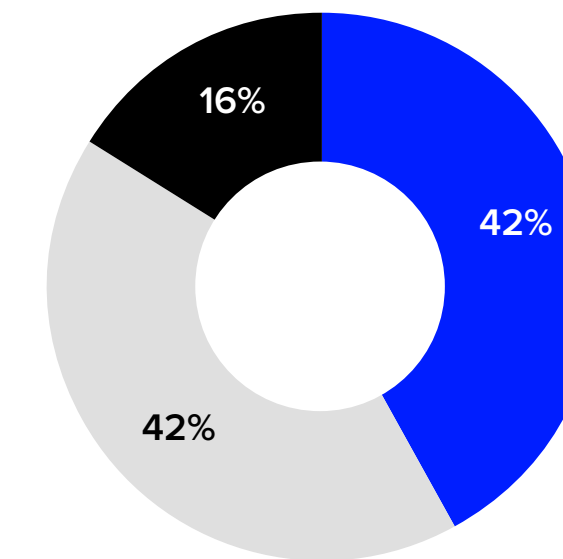
■ Top 10% ■ Middle 40% ■ Bottom 50%

GCC: wealth distribution (2021)



■ Top 10% ■ Middle 40% ■ Bottom 50%

SE Asia (OIC): wealth distribution (2021)



■ Top 10% ■ Middle 40% ■ Bottom 50%

Source: World Inequality Database

Redistributive solutions exist in Islamic finance and are not far from critical mass – but more funding and awareness is needed

Islamic finance solutions

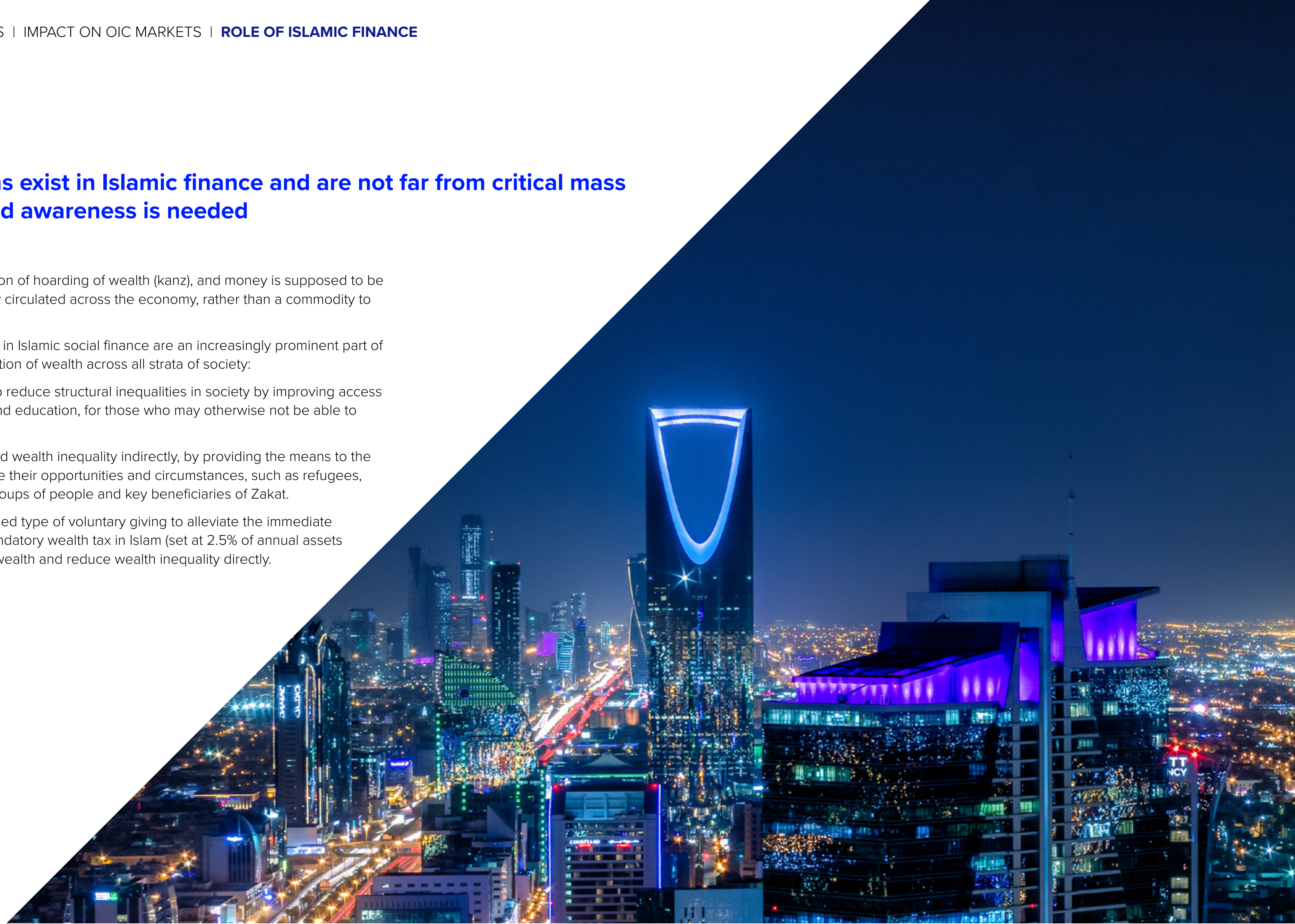
In Islamic finance, there is the prohibition of hoarding of wealth (kanz), and money is supposed to be a medium of exchange that is regularly circulated across the economy, rather than a commodity to be stored excessively.

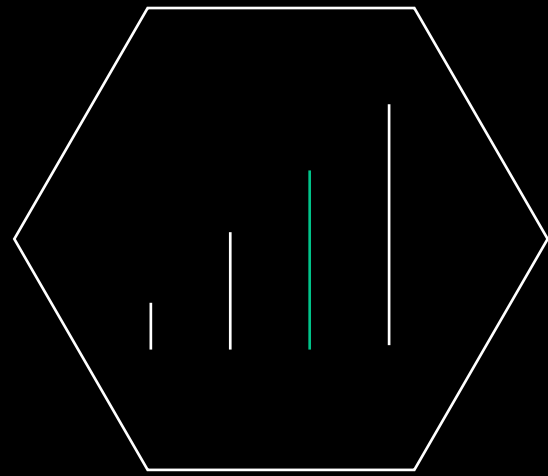
To that end, redistributive mechanisms in Islamic social finance are an increasingly prominent part of the quest for a more equitable distribution of wealth across all strata of society:

Awqaf (Islamic endowments) can help reduce structural inequalities in society by improving access to core services, such as healthcare and education, for those who may otherwise not be able to afford them.

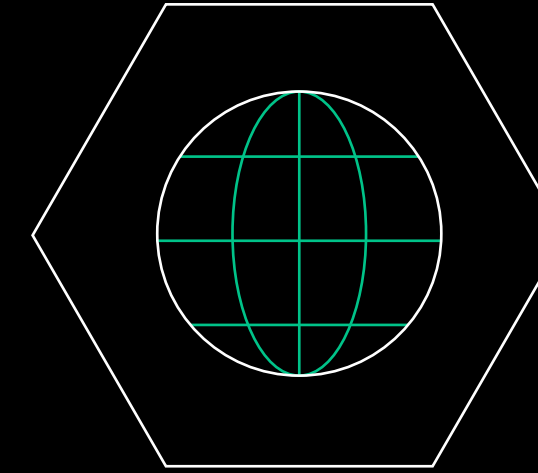
Zakat can also help reduce income and wealth inequality indirectly, by providing the means to the poorest members of society to improve their opportunities and circumstances, such as refugees, who are one of the most vulnerable groups of people and key beneficiaries of Zakat.

Sadaqah is typically a short-term focused type of voluntary giving to alleviate the immediate effects of poverty, whilst Zakat is a mandatory wealth tax in Islam (set at 2.5% of annual assets and wealth) that seeks to redistribute wealth and reduce wealth inequality directly.

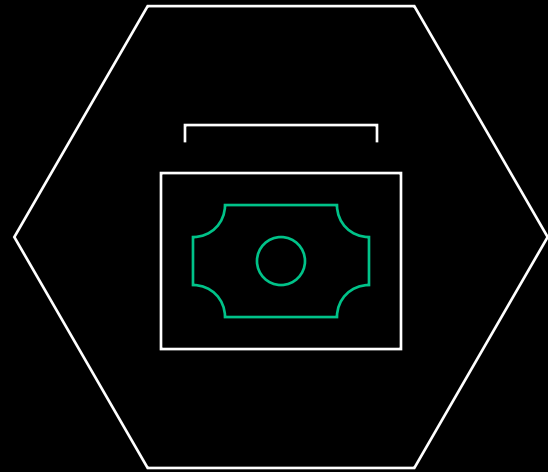


ISLAMIC SOCIAL FINANCE: THE IMPACT

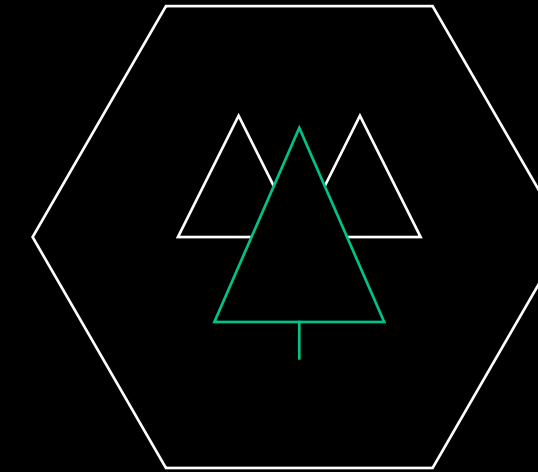
\$100 billion
waqf assets globally



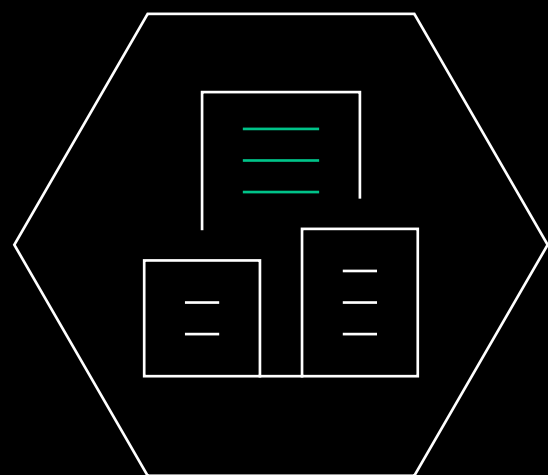
2 million
beneficiaries of UNHCR
Refugee Zakat Fund
(across 13 countries)



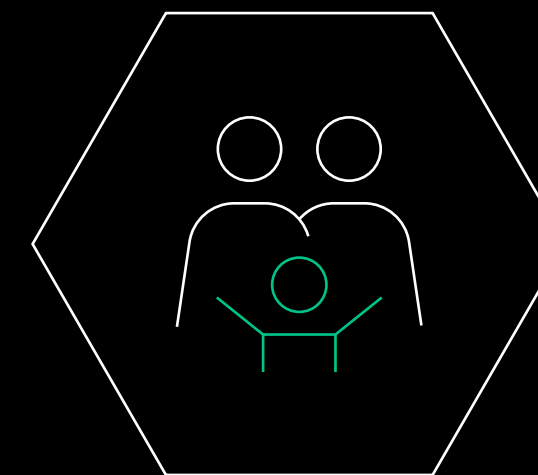
\$301.1 billion
global Zakat collection
potential (estimated)



\$27 billion
waqf land value
in Indonesia alone



70-80%
waqf assets globally
that are in real estate



114,279
families helped
in 2021 by UNHCR
Refugee Zakat Fund

Several organisations actively collect, manage and disburse funds for Awqaf and Zakat; these efforts align with SDG 10

Awqaf: APIF (Saudi Arabia)

Purpose: The Awqaf Properties Investment Fund (APIF), under the aegis of the Islamic Development Bank, helps finance waqf properties globally that generate a sustainable income for the use of beneficiaries across OIC countries through social and charitable activities.

Impact: 55 projects across various sectors, including education, health and youth empowerment, were funded with \$112.44 million in paid up capital and \$100 million in a line of credit from the Islamic Development Bank.



“Awqaf in the KSA play key roles in taking care of the most vulnerable groups such as women, persons with disabilities and orphans. With proper empowering strategies, such efforts would be aligned with SDG 10 ‘reduced inequality.’”

The Role of Awqaf Report, by UN Saudi Arabia and ICD



Zakat: Islamic Relief (UK)

Purpose: Islamic Relief collects Zakat from Muslims and then distributes it across the globe.

Impact: In 2020, Islamic Relief (UK) supported 13.8 million people in 39 countries, with over half (7.2 million) of those helped via 371 emergency projects in 30 countries.



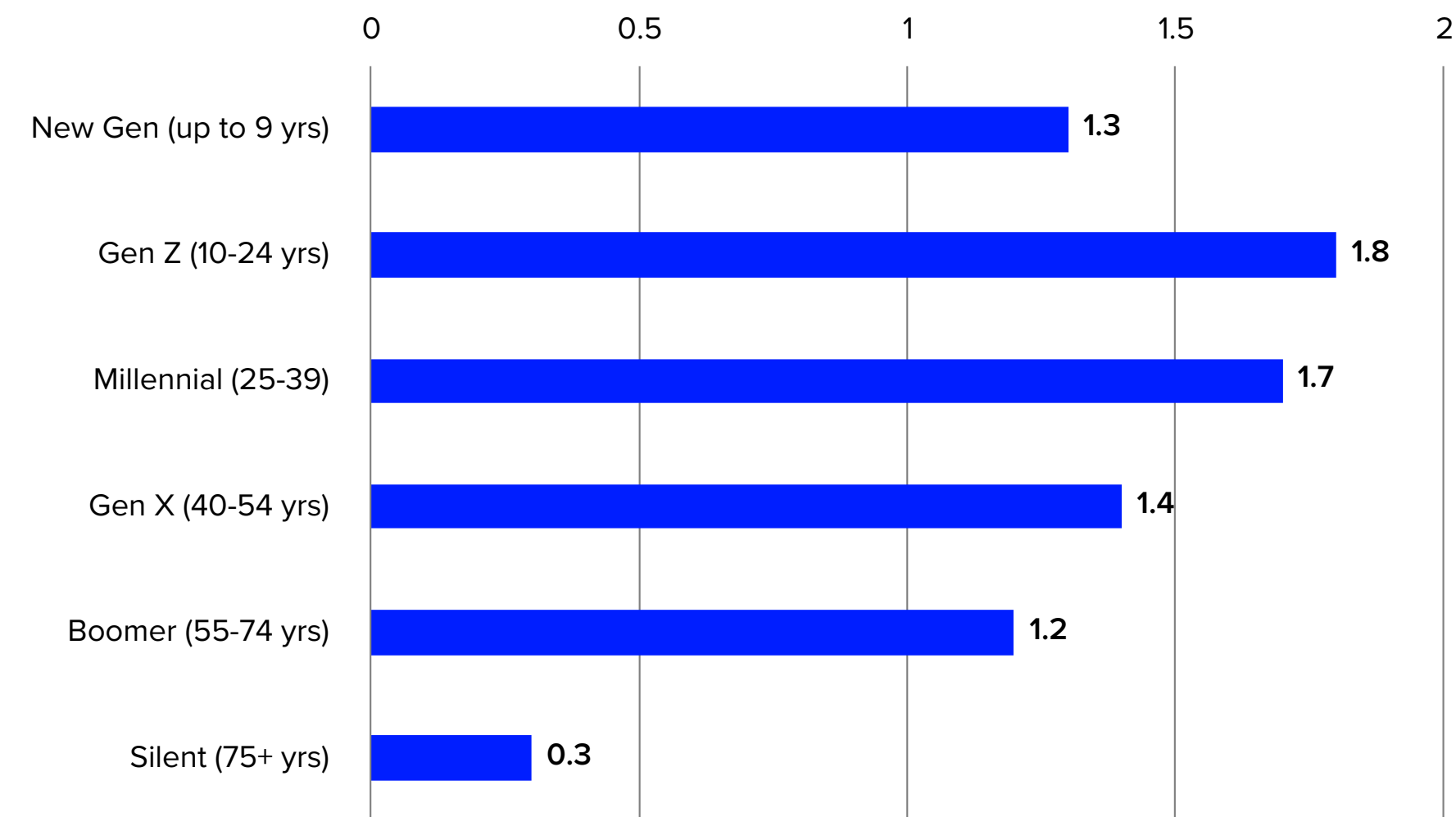
5: YOUTH

Younger generations are driving a sea change in consumer preferences and habits – stakeholders and industry players need to adapt

The situation

In 2020, 40% of the world's population was under 25, and 62% of the global population was under 40. The implication is clear: despite a large ageing population, a significant number of the world's peoples are youthful and as they continue to enter the workforce and come of age, their consumer preferences and spending habits will increasingly dictate the future of the global economy. Consequently, it is vital for stakeholders (e.g., governments) and industry players to be cognisant of these generational shifts, understand their preferences and habits, and adapt accordingly.

Global population size, by generations bn (2020)



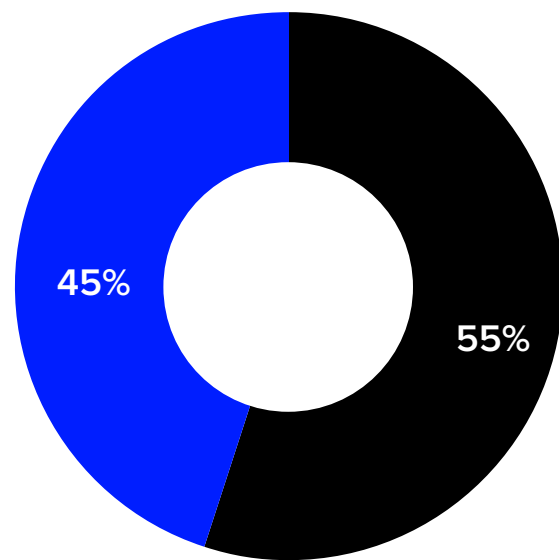
Source: EY/World Bank



Why it matters

Gen Z (born after 1996) are noticeably different from other generations. Industry research, such as surveys focused on Gen Z respondents, has shown that Gen Z are perhaps more entrepreneurial, less trusting, and more focused on different values (work-life balance, wellbeing) than previous generations. Moreover, unlike the previous generation of Millennials, who needed to consciously adapt to developments and innovations such as social media, constant connectivity and on-demand communications, these are an intrinsic part of Gen Z's social fabric. According to research by IBM, Gen Z have distinct consumer preferences and habits that manifest in the following ways: an expectation that retailers get the basics right, technology should be an enabler, and a preference for personalised shopping experiences.

55% of Gen Zers surveyed said they would like the ability to design products that no one else owns (2018)



Source: IBM Survey of 15,600 Gen Zers in 16 countries



OIC markets are particularly youthful, with consumers who wish to integrate their faith across their lifecycle needs and identities

Impact on OIC markets

OIC markets are particularly youthful. According to OIC estimates, member states collectively account for 27% of the global youth population, and by 2050 this proportion will increase to 35%. Additionally, in 2017, two-thirds of Muslims globally were under 30 (Ogilvy Noor), and in the US for instance, 42% of Muslims are under 30, making Muslims the youngest major religious community nationally.

Although not much research exists on Gen Z Muslims, new publications such as 'Muslim' are starting to provide online spaces for this demographic to come together and communicate. Moreover, there is a growing body of insights on the next most youthful group in the OIC, Muslim Millennials ('Gen M'). Market analysis of Gen M suggests they are entrepreneurial, modern, and yet also place emphasis on combining their faith values with modernity, for example, as indicated by the rise and continued projected growth of the modest fashion sector in the global Islamic economy.

To address the challenges facing Muslim youth, the OIC has come up with a 'youth strategy' with 11 key priorities earmarked.

Gen Z Muslim viewpoints

“We challenge the idea that Muslims are a monolith. We defy stereotypes and seek to remedy issues such as racism and colourism within our communities. We are fashionable, charitable, intelligent, talented, passionate.”

“Gen Z Muslims have been able to tie together Muslim and non-Muslim culture, like Western ideals and Muslim ideals, without sacrificing their beliefs, making Islam more approachable and relatable.”

Source: Religion News Service (courtesy of 'Muslim' magazine)



Islamic fintechs can help provide for younger Muslim consumers' financial lifecycle needs and enable their ambitious aspirations

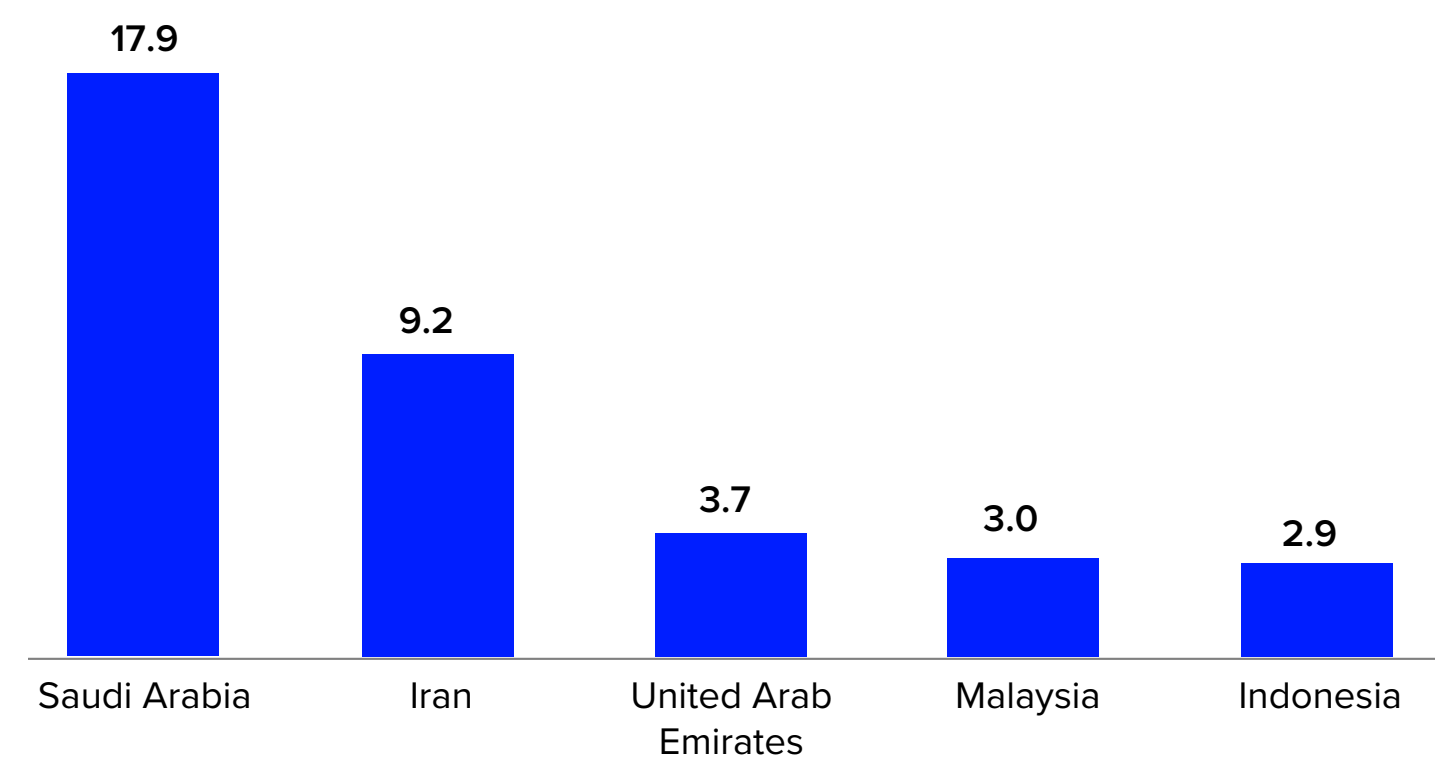
Islamic finance solutions

In recent years, Islamic fintech has risen to become one of the key, albeit still nascent, segments of Islamic finance. The Islamic fintech market size (by transaction volume) was \$49 billion in 2020, and this is projected to grow to \$128 billion by 2025 at an annual growth rate (CAGR) of 21%, compared to 15% for conventional fintech. Core markets remain in MENA and Southeast Asia, as indicated by Islamic fintech market sizes in 2020 and where most Islamic fintechs are based. However, non-OIC countries that have substantial and active Muslim presence, such as the UK, USA and Canada, are growing in importance for global Islamic fintech by providing innovative use cases.

The Islamic fintech market is blossoming, with 241 Islamic fintechs currently. One of the key drivers of this growth is that younger Muslims, in line with global youth, are drawn to app-based solutions for their various financial lifecycle needs, from savings and investments to financing and charitable giving. To their credit, Islamic fintechs are taking up the mantle of consumer education and awareness-building amongst Muslim youth, thereby also securing future consumers, since their active engagement provides impetus for those consumers to use Islamic fintechs for their financial needs.

ISLAMIC FINTECH: THE NUMBERS AND KEY CHALLENGES

Top five Islamic fintech market sizes 2020 (\$Bn)

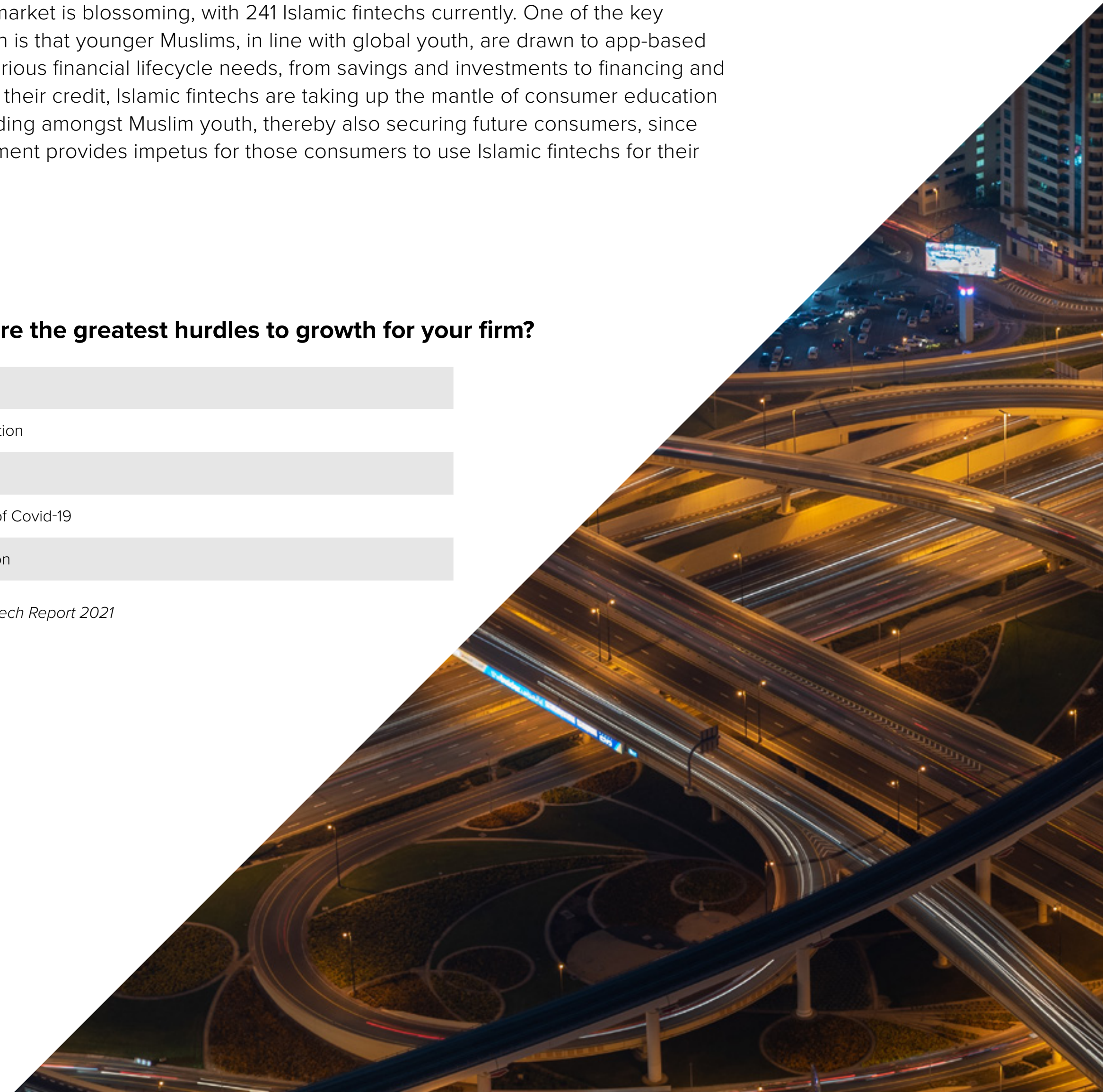


Source: Global Islamic Fintech Report 2021

Fintechs: What are the greatest hurdles to growth for your firm?

1	Capital
2	Consumer education
3	Finding talent
4	Ongoing Impact of Covid-19
5	Differing regulation

Source: Global Islamic Fintech Report 2021



Several Islamic fintechs now cater to various lifecycle needs across varying geographies – ‘glocalisation’ is one of the keys to wider traction

Savings and investments solutions

Purpose: Wahed and Aghaz are both robo-advisors that provide Shariah-compliant investment and saving solutions.

Impact: Both fintechs are addressing the market need of younger generations who are looking for services that cater to their beliefs. Through their offerings, they are making financial services more inclusive and transparent.

Currently, Wahed has offices in 11 countries with over 200,000 clients globally, whilst Aghaz is still limited to the US only but plans to expand globally as well.



Financing platforms

Purpose: A type of fintech that is meeting consumer demand is ‘Buy Now, Pay Later’, or BNPL solutions. Tabby is an example of an Islamic BNPL. UK-based Qardus is a Shariah-compliant business financing platform.

Impact: Overall, there is a global surge in BNPL solutions especially during the pandemic. Dubai-based Tabby was considered as one of the highest valued start-ups in the Middle East. In the UK, Qardus is supporting the growth of several businesses of different types



Digital banking solutions

Purpose: Digital Islamic banking is growing globally, with many being established in different parts of the world, such as Saudi Arabia’s meem, part of Gulf International Bank, that started operating locally in 2015 and later expanded to Bahrain in 2018. It offers saving as well as financing solutions for retail consumers. Malaysia aims to introduce digital banks to capture the unbanked population; Bank Negara Malaysia received applications for digital banks in 2021 and aims to award five licences this year.

Impact: meem is marketed as the first Islamic digital bank regionally and amongst its latest offerings is mortgage solutions. This prompted other Islamic digital banks that operate in the region to follow its lead. Meanwhile, Malaysia saw an intense interest in digital banks as it received 29 applications, at the end of June 2021, for a maximum of five highly-coveted digital banking licenses. Several consortiums were formed as contenders for Islamic digital banks, including Green Packet-Zico-M24 Tawreeq, MyAngkasa Digital Services-Boustead Holdings and MyMy-Sukaniaga.



6: AGEING SOCIETIES

Population ageing is increasing globally – this pushes up old age support ratios, creating pressure on future workforces and healthcare systems

The situation

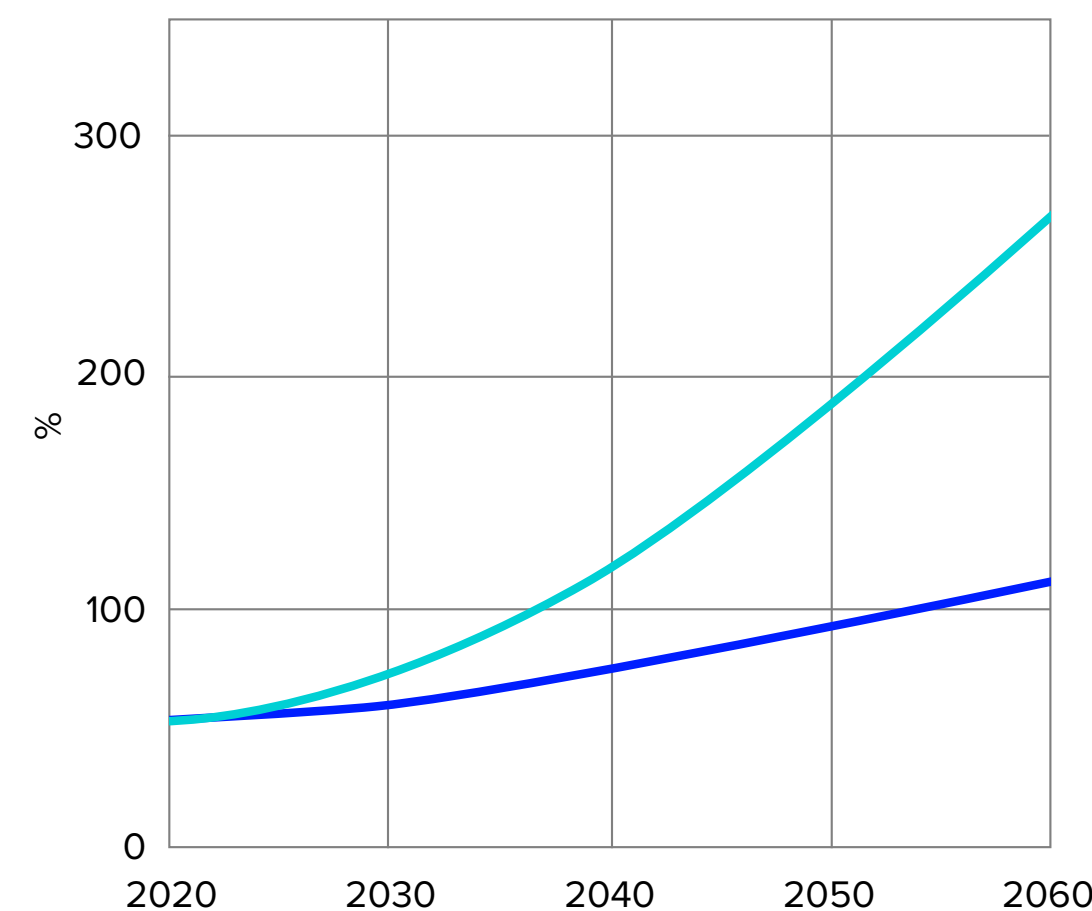
Consider these facts from the World Health Organization (WHO): between 2015 and 2050, the proportion of the world's population over 60 years of age will increase from 12% to 22%; in 2020, the number of people aged 60 years and older outnumbered children younger than five years; and in 2050, 80% of older people will be living in low- and middle-income countries. As the UN points out, the number of persons aged 80 years or over is projected to triple, from 143 million in 2019 to 426 million in 2050. Clearly, population ageing is a global phenomenon whose pace at present is significantly faster than it was in the past.

Why it matters

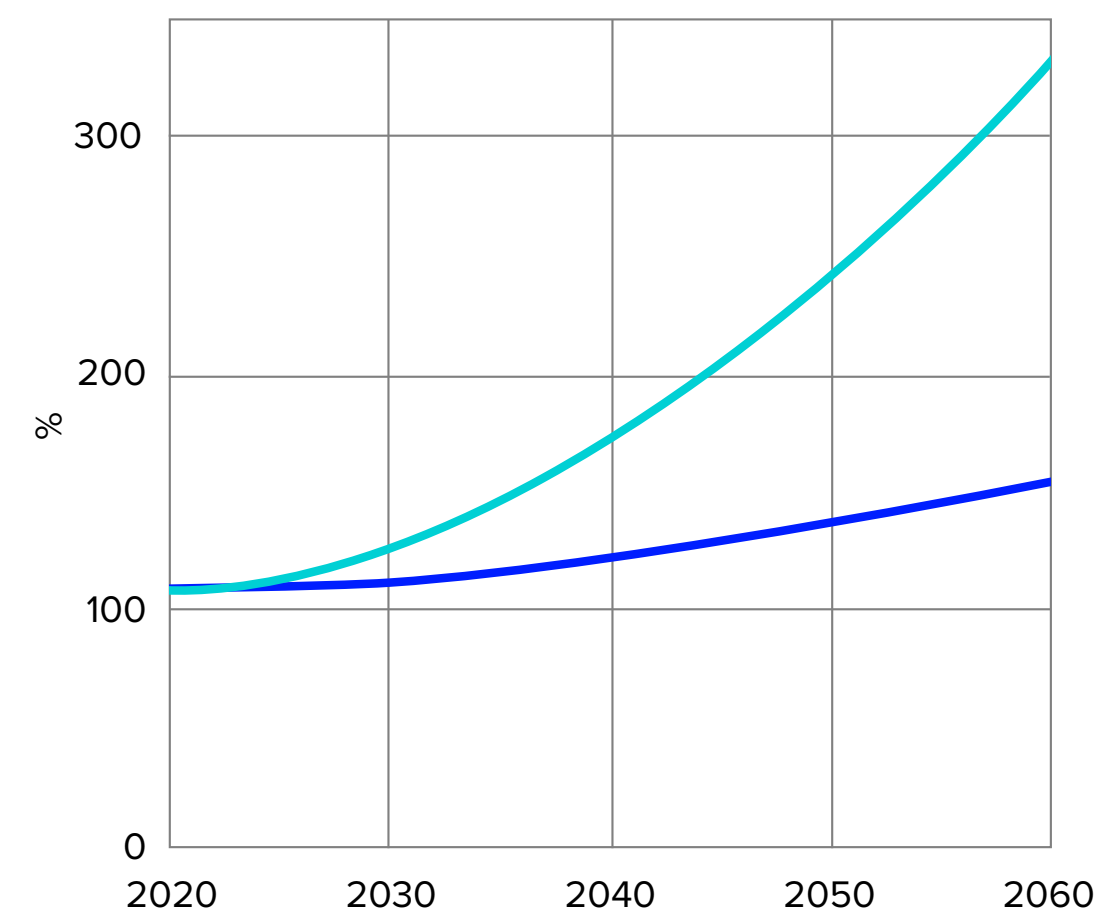
Population ageing is a significant concern for nations worldwide since it pushes up old age support ratios (the ratio of elderly people to those in the workforce), creating pressure on future workforces and healthcare systems. Moreover, as mentioned above, 80% of older people will be living in low- and middle-income countries by 2050. These are countries that are not necessarily well-equipped economically and socially to manage this coming wave of ageing. In particular, the rise in population ageing is projected to put severe pressure on both emerging and advanced economies' levels of public debt alike, potentially sowing the seeds for future global economic instability.

PUBLIC DEBT SCENARIOS, PERCENTAGE OF GDP

G20 emerging economies



G20 advanced economies



■ With ageing pressure
■ Without ageing pressure

Source: OECD



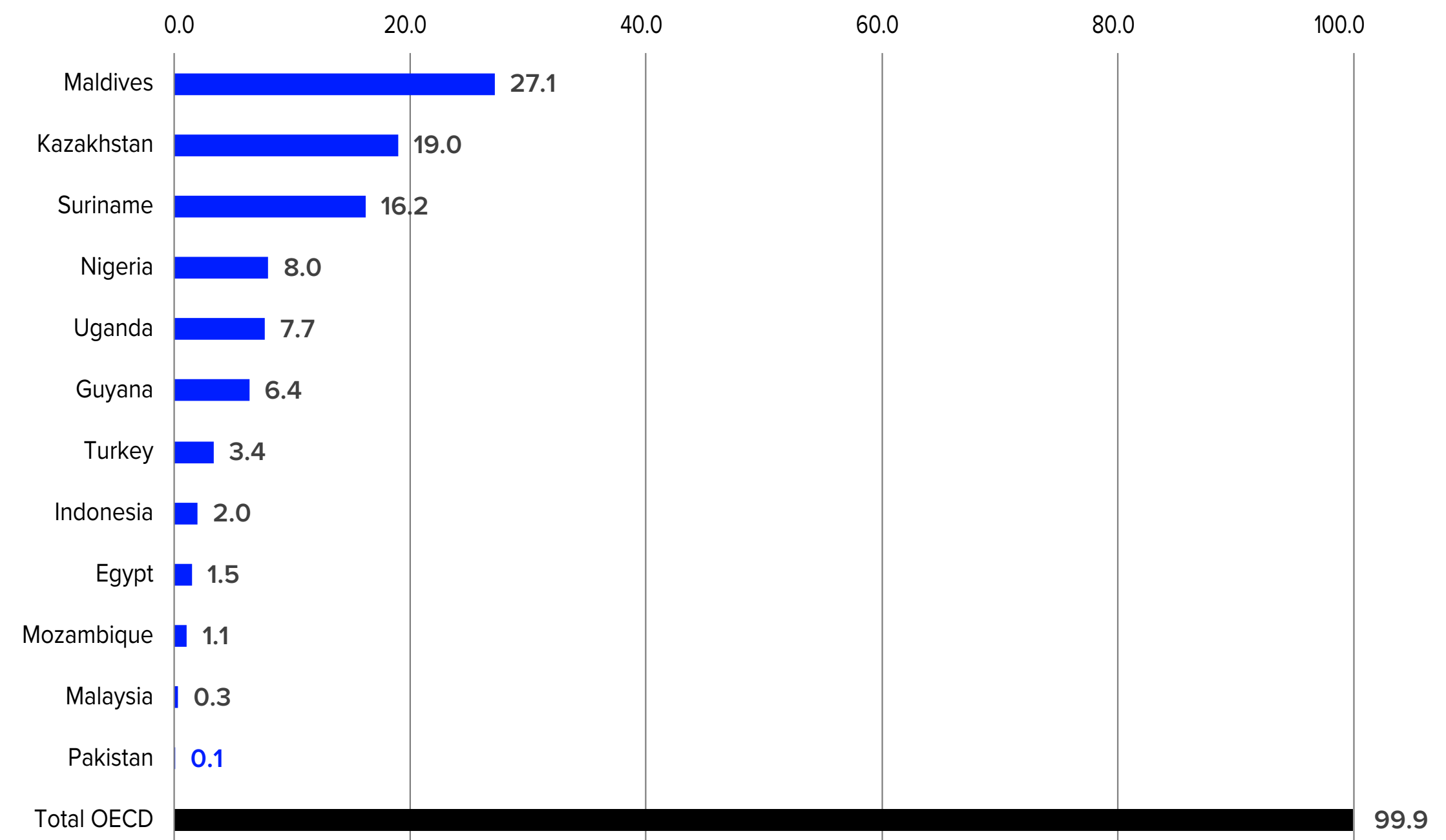
OIC countries are also affected – yet many of these have limited pension fund resources, indicating citizens are not saving enough for retirement

Impact on OIC markets

Despite increases in pension assets between 2010 to 2020 for some major Islamic finance jurisdictions, including Malaysia, Pakistan, Turkey and Nigeria, the OECD's 2020 pensions statistics database suggests that OIC pension assets are still dramatically low in comparison with developed economies (see bar chart). Major Islamic finance jurisdictions have less than 10% of total assets in retirement savings plans, with most below the 5% level: Nigeria (8%), Turkey (3.4%), Indonesia (2%), Egypt (1.5%), Malaysia (0.3%), and Pakistan (0.1%). Contrast this with the average figure for the OECD's 37 countries (99.9%), and it is evident that OIC pension fund assets still have a long way to go.

Part of the problem is that Shariah-compliant pension options remain limited for Shariah-sensitive individuals. In the UK for instance, recent survey data indicates that a third of Muslims do not keep pensions due to a lack of Shariah-compliant pension options, leading to UK Muslims missing out on an estimated total of £12.8 billion in retirement saving.

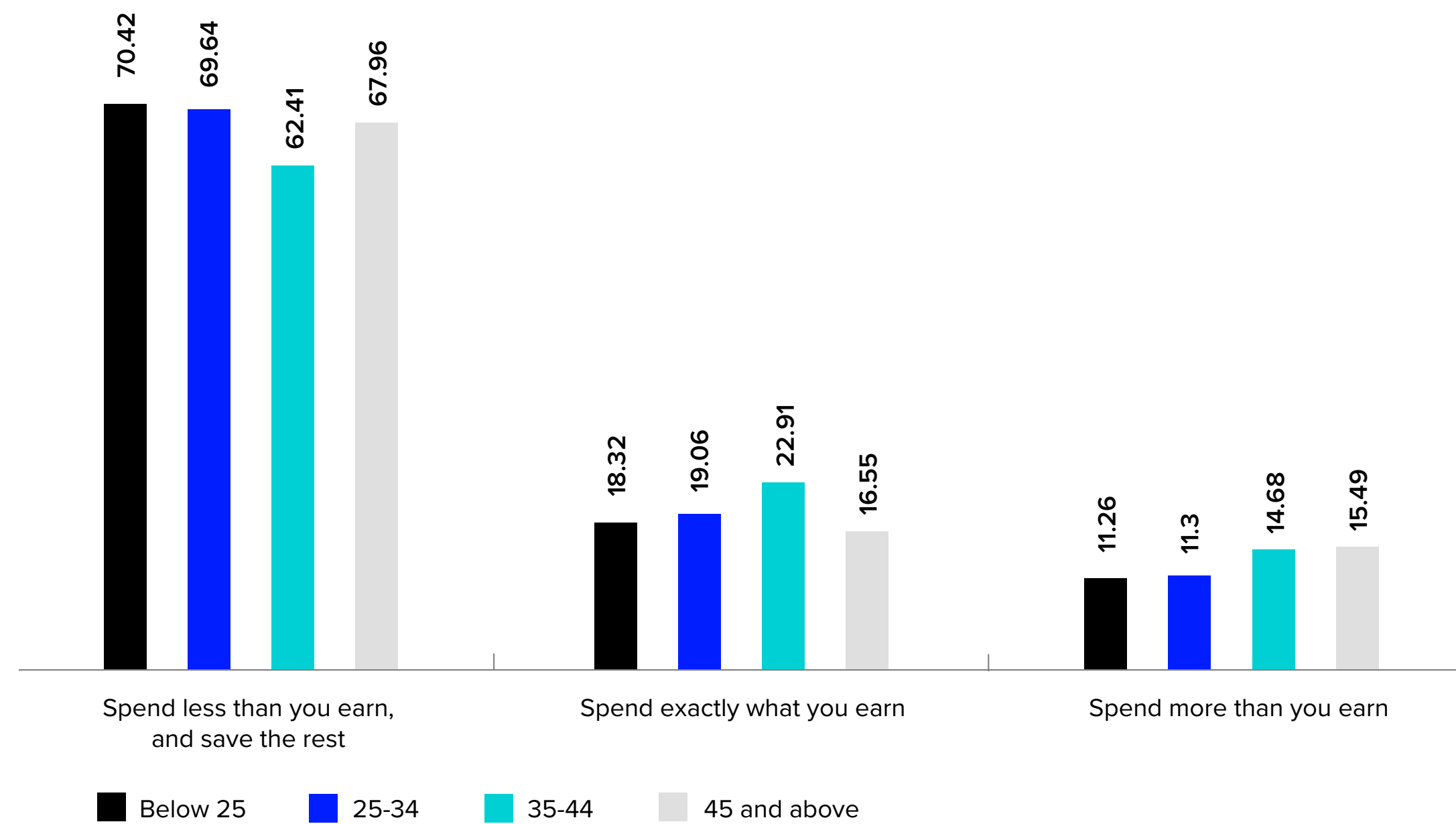
Total assets in retirement savings plans, in 2020 (or latest year available), as percentage of GDP – select OIC countries



Source: OECD

Second, compared to developed markets, Muslims in OIC countries are not saving enough for retirement, as indicated by saving habits in major Islamic finance jurisdictions like Malaysia. Also, existing major pension funds in Indonesia, Kuwait, Malaysia and Saudi Arabia have total assets value of \$542.47 billion, almost five times the overall Islamic fund figures in 2018, but this is still much lower than the total assets value of US pensions, which alone are 34 times larger (\$18.8 trillion). Finally, data scarcity on Islamic pensions is another pertinent issue that contributes to the lack of clarity on the impact for OIC markets.

30% of all Malaysians are living paycheque to paycheque (2018)



Source: RinggitPlus



Shariah-compliant pensions and longevity sukuk can help reduce retirement savings gaps, but stakeholders need to amplify these solutions

Islamic finance solutions

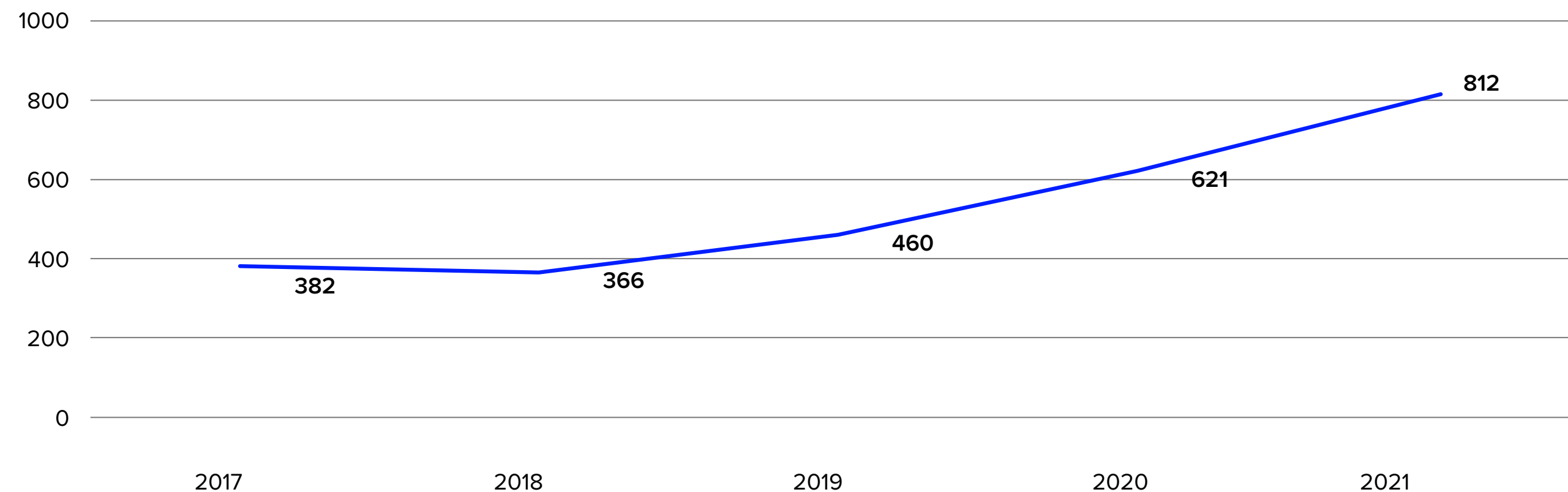
The value of Islamic pension funds is rising: in 2017, their assets were worth \$382 million globally and by the end of 2021 this number had risen to \$812 million, according to Refinitiv Lipper data. However, it is important to put this number in perspective: the largest single pension market in the world, the US, has \$18.8 trillion in assets value. In terms of domicile, three countries dominated: Malaysia, Pakistan and the UK accounted for 98% of Islamic pension funds in 2021.

Complementing Shariah-compliant pensions are solutions such as longevity sukuk. Though a longevity sukuk has yet to be launched in the market, it could be a matter of time given the dramatic rise in population ageing that is set to unfold in OIC countries as well as globally. A longevity sukuk,

as the name implies, aims to combat longevity risk arising from increasing lifespans by providing returns via sukuk that can then be used to fund Shariah-compliant annuities (regular payments in retirement).

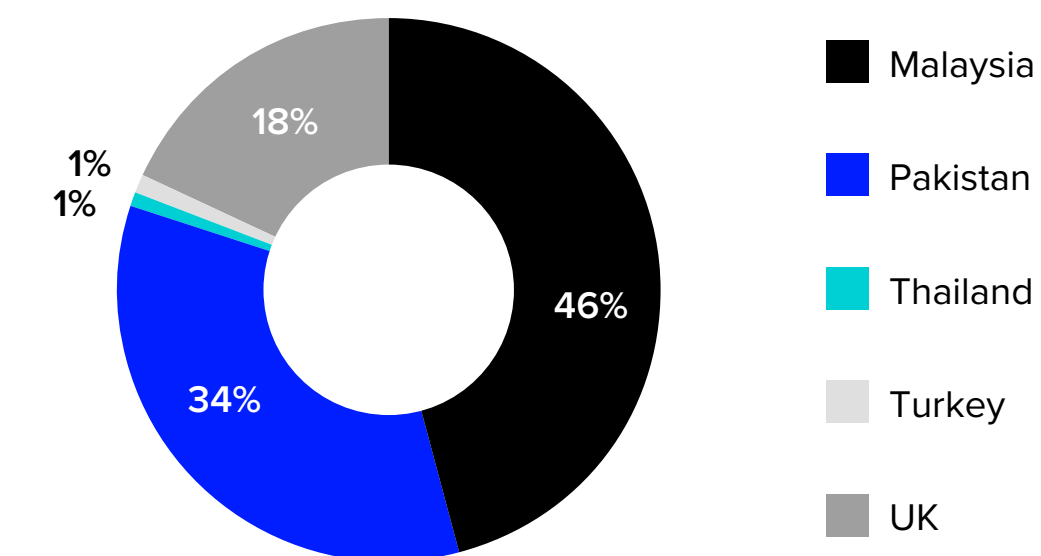
Although market solutions such as Shariah-compliant pensions and longevity sukuk can help increase access to assets in retirement, they can only go so far without consistent and tangible regulatory support. Regulators across the OIC need to do more to amplify these solutions by providing regulatory support. Two examples of regulatory support in this space are Malaysia's private retirement schemes that help encourage Malaysians to save more for their retirement on top of their mandatory pensions (EPF), and a Shariah-compliant option for the state-run pension fund (Simpanan Shariah).

Islamic pension funds value (2017 – 2021, USD million)



Source: Refinitiv Lipper

Islamic pension funds by domicile (2021)



Source: Refinitiv Lipper

A positive development is that several Shariah-compliant pension offerings exist now, including occupational pensions and self-driven private retirement schemes

Occupation pensions: EPF Simpanan Shariah (Malaysia)

Purpose: Malaysia's Employees' Provident Fund manages the retirement plans for private sector workers in the country. Part of its offerings is Simpanan Shariah, which is overseen by a Shariah governance framework.

Impact: For 2020, EPF delivered a dividend of 4.9% with a pay-out of MYR 4.7 billion for Simpanan Shariah. In comparison, the conventional arm of the EPF had a rate of 5.2% with a pay-out of MYR 42.8 billion.



Private retirement schemes (Malaysia)

Purpose: Private retirement schemes (PRS) are voluntary investment and savings schemes that are long-term in nature. Each PRS allows employed individuals to choose funds suitable to their need, goal and risk appetite. This was started in 2014.

Impact: There are eight providers, all of which offer Shariah-compliant options along with conventional ones. At the end of 2020, some of the top performing funds in terms of five-year annualised returns were Islamic, including AmPRS-Islamic Equity I (10.19%) and Principal Islamic PRS PI Asia Pacific ex-Japan Equity series (10.05%) according to Morningstar. Some also outperformed the EPF.



Fintech-based Solutions: Wahed and Options (UK)

Purpose: Wahed is a robo-advisor with Shariah-compliant offerings, one of which is SIPP, or 'self-invested personal pension'. This offering is for UK residents only. Wahed partnered with Options UK Personal Pensions LLP to deliver this solution.

Impact: This allows those in the UK, who are self-employed, have their own business or opted out of their work pension, to have a Shariah-compliant pension.



Occupational pensions: Nest (UK)

Purpose: This pensions provider is set up by the government in the UK for auto enrolment, ensuring that each employee has access to a high-quality UK pension scheme. Members who seek Shariah-compliant pension options in the UK can invest in Nest Sharia Fund.

Impact: Nest reported that its Shariah fund had a five-year cumulative performance figure of 118% as of September 2021, the highest of all its funds. Its annualised total return for five years is 16.9%.



SOURCES

Sources

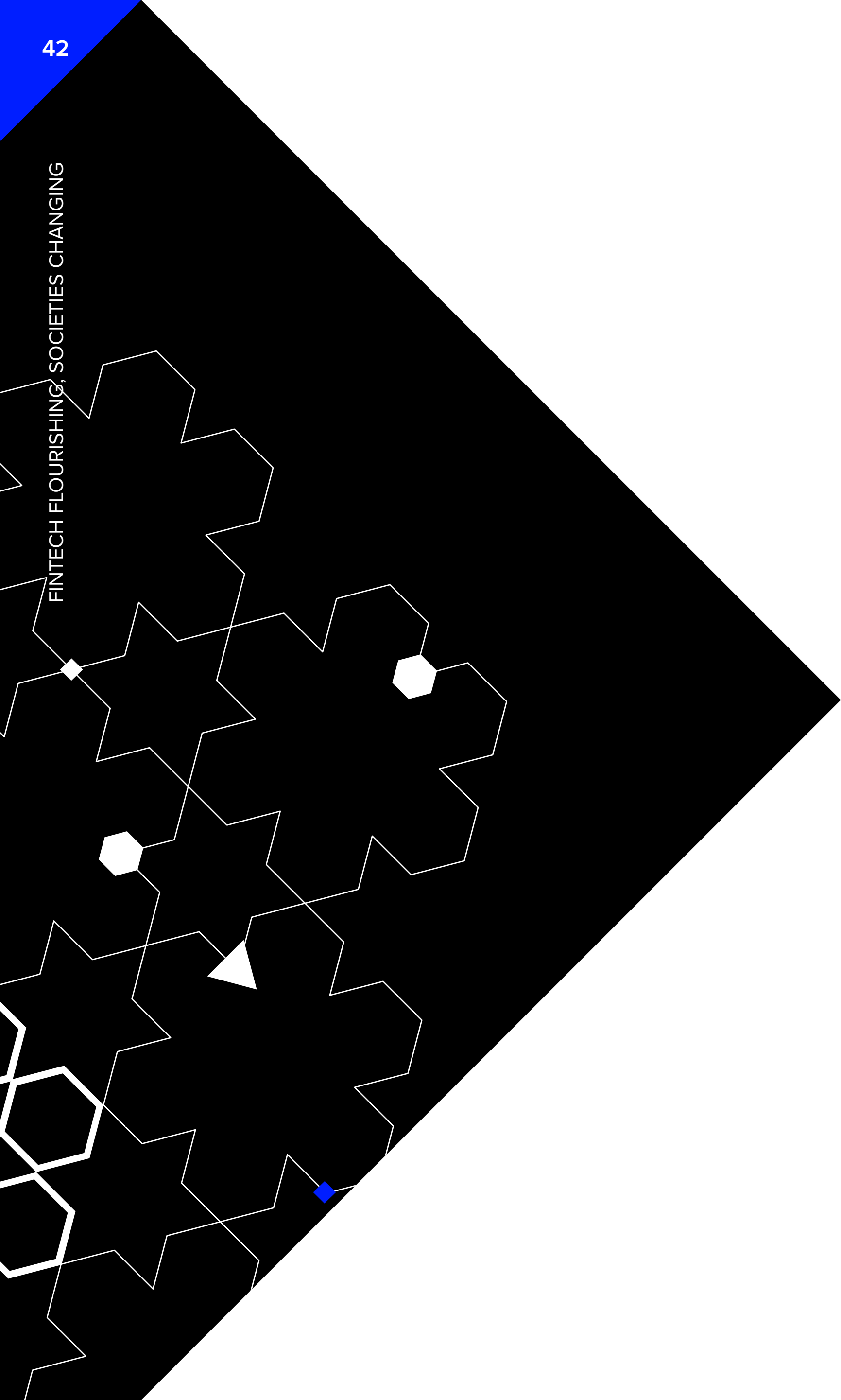
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OIC data

<https://www.sesric.org/cif-home.php>

Case studies data

Various company and Islamic fintechs' websites, in addition to sources already mentioned.



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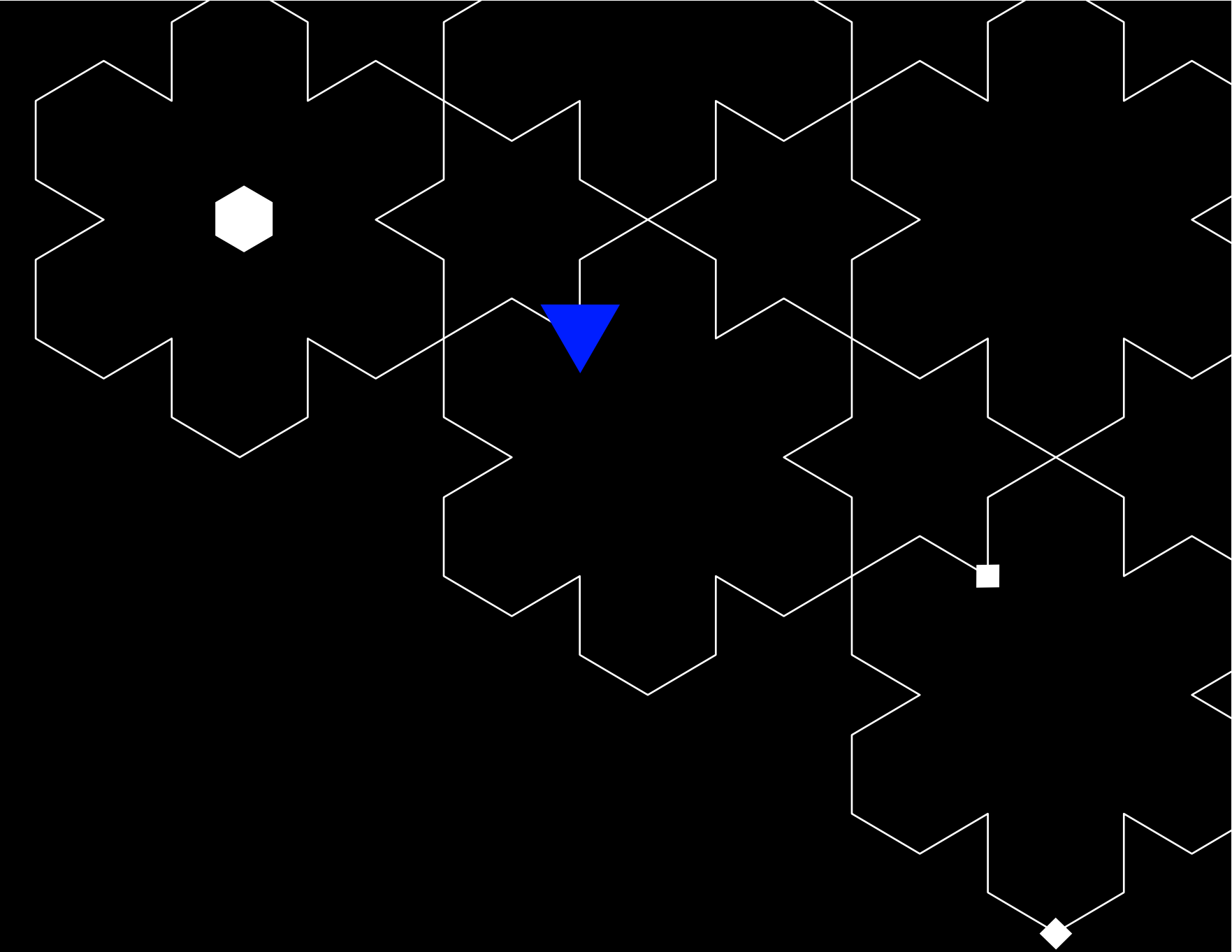
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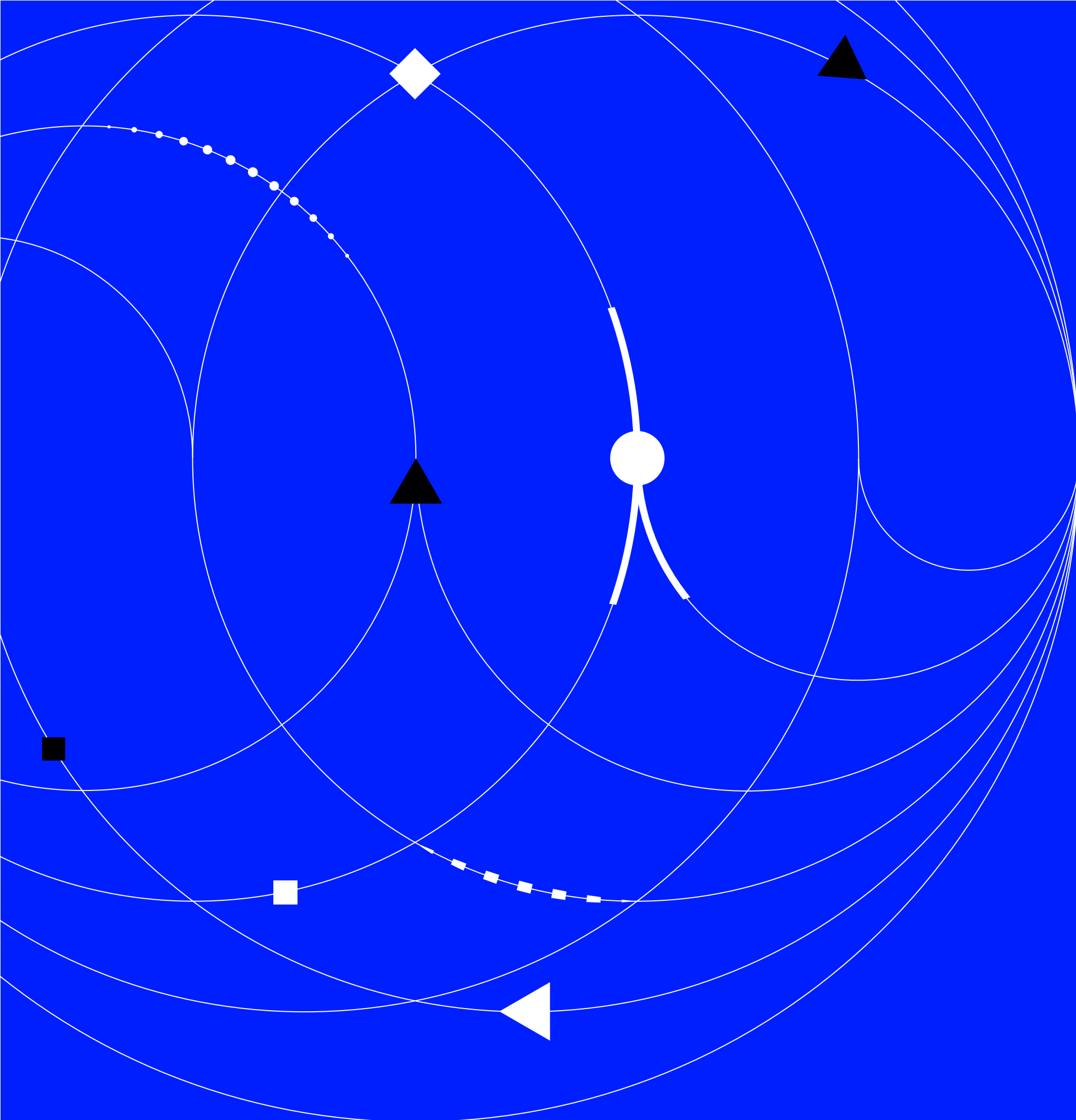
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