Suruhanjaya Sekuriti
Securities Commission
Malaysia

OXFORD
Centre for Islamic Studies
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TRANSFORMING ISLAMIC FINANCE THROUGH IMPACT FINANCE AND SOCIAL AGENDA – BASED ON MAQASID

Proceedings of the SC-OCIS Virtual Roundtable 2021

23 – 24 September 2021
Kuala Lumpur

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SC – OCIS Roundtable

The Securities Commission Malaysia (SC) and the Oxford Centre for Islamic Studies (OCIS) have collaborated to create an international platform for a discourse on topical issues and challenges faced in bringing Islamic finance into the mainstream.

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HRH Sultan Nazrin Muizzuddin Shah

Sultan of Perak, Malaysia and the Royal Patron for Malaysia’s Islamic Finance Initiative

WELCOME REMARKS

Dr Farhan Nizami
Director
Oxford Centre for Islamic Studies, UK

Your Royal Highness Sultan Nazrin Muizzuddin Shah, Sultan of Perak, Datuk Syed Zaid Albar, ladies and gentlemen.

It is my honour, on behalf of the Oxford Centre for Islamic Studies, to welcome you to this 12th SC–OCIS Roundtable on 'Transforming Islamic Finance Through Impact Finance and Social Agendas Based on Maqasid'. Although circumstances do not permit us to meet in Oxford, I want to take this opportunity to thank you all for making the effort to attend online. I am particularly grateful to HRH Sultan Nazrin Shah, Sultan of Perak and Royal Patron for Malaysia's Islamic Finance Initiative, for graciously inaugurating this Roundtable, even in the midst of a pandemic. Over all these years, His Royal Highness has been unstinting in his support of this initiative. I would also like to record my thanks to Datuk Syed Zaid Albar and his colleagues at the Securities Commission Malaysia (SC) for their efforts in putting together this meeting.

Insha'a Allah it is not too soon to hope that we may begin to look beyond emergency measures to cope with the aftermath of the pandemic. Even if, in the gathering storms of climate change, we are on the edge of a situation far more lethal, we have a religious obligation to do whatever good we have in hand. You may recall the Prophetic hadith – "if, when you hear the first blast on the trumpet signalling the end of all things, you are holding a tree that you intended planting, go ahead and finish planting it."

The good in hand before this Roundtable is to discuss ways of transforming Islamic banks and financial institutions (IBFIs) from formal shariah-compliance to substantive compliance with the broader purposes of the Shariah, its *maqasid*. The desired transformation is from IBFIs that screen negatively for offence to the Shariah – avoiding *riba*, not investing in *haram* activities and products, etc. – to IBFIs that make decisions intended, structured and then tested, for their positive impact on human and environmental well-being in both near and far-off places and times. The first task is satisfactorily to distinguish the general good envisaged by the *maqasid* from the rhetoric of corporate social responsibility or CSR.

CSR rhetoric has grown more persistent as the consequences of globalisation have become more undeniable. Prominent among those consequences are: acute socio-economic inequality, degradation of the authority of local and state governments to manage public welfare and public finances, and to disguise that reality, the corruption of political and information processes. As far as this outsider to the field can make out, CSR is the pursuit, alongside profit, of virtue rationalised as 'reputational capital'. It claims to improve the public purse through taxation of jobs created, social welfare through donations to charities, arts and sports, and the global commons through technology transfer.

> "According to Ghazali's famous division, the Shariah protects five general interests: *din*, religion (a life-way that sustains individual and collective relation with God); *nafs*, personhood (roughly, human rights and dignities); *`aql*, intellect (inquiry and education); *nasl*, lineage (family, future generations); and *mal*, wealth (property, prosperity)."

Even if these claims are sound, the cultural and political framework in which corporations operate defines their competence on the basis of self-interested profitability. Their legal duty is to shareholders, not to the others whom they value as 'stakeholders'. We might have 'green' products made from '100% recycled' materials, but we still have as many or even more of them. In any trade-off between injurious levels of consumption, planned obsolescence, etc., and public and environmental well-being, the shareholders' interests trump all others, always. CSR seems always to end up (so to speak) replacing fat with sugar, and sugar with sugar-free sweeteners: obesity remains.

My first hope of this Roundtable is to find out how specialists distinguish the objectives of corporate responsibility from the *maqasid*. According to Ghazali's famous division, the Shariah protects five general interests: *din*, religion (a life-way that sustains individual and collective relation with God); *nafs*, personhood (roughly, human rights and dignities); *`aql*, intellect (inquiry and education); *nasl*, lineage (family, future generations); and *mal*, wealth (property, prosperity). The protection of Islam must include the protection of life and what sustains it, since God has said that while the background conditions of heavens and earth are in service to mankind, they are also the immediate source of provision for all living forms.

If Muslims claim concern for the environment as an implicit *maqsad*, they do so from the premise of 'religion'. The need to preserve the relation with God encompasses and motivates the other *maqasid*. But religion is neither explicit among CSR objectives, nor UN sustainable development goals. It is there only implicitly, alongside human rights, language and culture.

That seems (to this non-specialist) to represent a major stumbling-block for any specialists seeking to draw on CSR as a way to give practical form to the *maqasid*. The search for practical form is justified by the need to professionalise the discussion. There is no point asking IBFIs to commit themselves, after Shariah-compliance, to the *maqasid*, if their performance cannot be evaluated somehow. Their performance as financial institutions is measured in terms of assets accrued, geographical reach, and range of economic activities supported. These are quantitative measures, applicable universally, regardless of whether banks are Shariah-compliant or not. Indeed, IBFIs are said to be nearly as economically efficient as conventional equivalents despite being Shariah-compliant and more stable because Shariah-compliant. But the *maqasid* refer to outcomes that are qualitative.

It seems likely that, for all the criticisms of their failure to expand equity financing, IBFIs have been trying, within the constraints of moderate levels of profitability, to have social impact and value: that is, to effect positive quality-of-life outcomes for individuals and communities that, but for IBFI investments, would not have occurred. I hope, in the course of our discussions, to learn if that is the case and how difficult it is both to disclose and to measure such outcomes. I hope also to find out if it is feasible, among desirable objectives for IBFIs, to distinguish necessities, complementary needs and refinements, as al-Shatibi did. If we can distinguish the absolutely necessary (such as access to the means of survival, which concern the recipients of *zakah* funds) from other levels of necessities (such as health and safety at work, primary education, then secondary and higher education, all the way up to research and development funding), can we also determine with any confidence whether IBFIs would be able to finance these needs independently of the conditions under which they operate? If qualities of the regulatory and political environment (integrity, transparency, stability) and the state of public space (hygiene, transport and communication infrastructure) are relevant factors, how does that affect the responsibilities and priorities of the IBFIs, whether private- or government-owned?

Ultimately, I hope to find out if bringing in *maqasid* really moves our ability to evaluate IBFIs from a narrow Shariah-compliance to a broader Islam-compliance, or if it is a layer of formality allowing IBFIs to align or compare their activities with the developing rhetoric of CSR? The concept of *maqasid* was originally a way to guide priorities within *fiqh*, which is a general, comprehensive endeavour to implement the religion. Can it really help us to understand and evaluate the more specific, specialised competencies of financial institutions?

Since there is so much for me to learn, let me not delay the proceedings any further. Once again my thanks to you all.

WELCOME ADDRESS

Datuk Syed Zaid Albar
Executive Chairman
Securities Commission Malaysia

Your Royal Highness Sultan Nazrin Muizzuddin Shah ibni Almarhum Sultan Azlan Muhibbuddin Shah Al-Maghfur-lah, Sultan of Perak Darul Ridzuan and Royal Patron for Malaysia's Islamic Finance Initiative; Dr Farhan Nizami, Director, Oxford Centre for Islamic Studies (OCIS), UK, Distinguished Participants, Ladies and Gentlemen.

It gives me great pleasure to welcome you to the 12th session of the SC-OCIS Virtual Roundtable. I want to convey our gratitude to Your Royal Highness Sultan Nazrin Muizzuddin Shah. We are grateful for the unwavering support you have given to this Roundtable and our Islamic capital market (ICM) initiatives through the years. The common purpose of this Roundtable is to further the agenda of Islamic finance and I would like to acknowledge the long-standing endeavour of the OCIS and SC team.

The global development challenges that we face today are complex in nature and span across borders. COVID-19 continues to evolve. The economic, social and health consequences of the pandemic are likely to linger for years.

Nature's adversity, on the other hand, breeds human ingenuity and resilience. This resilience is evident in many areas including financial services and capital markets, as countries rally to build back better.

While the signs have been encouraging, recovery is expected to be geographically uneven. The IMF has projected global economic growth of 6 per cent in 2021. However, in part due to the lack of access to vaccines, emerging economies are at risk of falling behind in their recovery[1].

Perhaps, the unintended consequence of the pandemic is accelerated innovation as governments devise emergency financing packages to mitigate the health and economic impact as well as fund socio-economic recovery. The UK tax authorities, for example, have devised innovative debt-warehousing schemes[2].

Closer to home, Malaysia's first digital *Sukuk Prihatin*, used innovative and an out-of-the-box approach in encouraging Malaysians to contribute to the country's recovery. Malaysia was also the first country to issue a US Dollar Sustainability Sukuk for eligible social and green projects aligned with the United Nation's Sustainable Development Goals (UN SDGs).

We also see the potential of *zakat*, *sadaqah* and *waqf* in contributing to poverty eradication and promotion of inclusive and sustainable economic growth.

These social finance instruments can provide a potentially transformative impact in terms of protecting jobs and livelihoods, ensuring greater equality and alleviating poverty.

In this regard, Malaysia is actively promoting the *waqf* concept as an instrument for social development, greater public good and wealth distribution. With the Waqf-Featured Fund Framework, the SC hopes to broaden the range of innovative ICM products and increase public access to Islamic funds that allocate all or part of the fund's returns towards socially impactful activities.

Despite COVID-19, the Malaysian capital market remained resilient, growing 7 per cent in 2020. This growth trajectory was driven largely by the ICM, which accounted for nearly 66 per cent of the total capital market size.

As a regulator, we have made considerable strides in instilling *maqasid* values in our vision, mandate, functions and operations. We recognise the need for more collaborative thinking and action between stakeholders to pursue a shared vision for a *maqasid*-driven ICM, particularly in resource mobilisation, infrastructure funding and wealth creation. These are critical elements to a sustainable recovery, moving forward.

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1 *World Economic Outlook Update*, International Monetary Fund (IMF), July 2021.

2 https://revenue.ie/en/corporate/communications/documents/debt-warehousing-reduced-interest-measures.pdf.

Domestically, the priority is to enhance awareness of sustainability risks and opportunities as well as support MSMEs through alternative fundraising avenues, including Islamic platforms. In this respect, we have introduced several overarching initiatives this year in the areas of corporate governance, sustainable and responsible investments (SRI), Shariah screening and Islamic fintech.

On corporate governance, new best practices and guidance to strengthen governance culture of listed and non-listed companies were introduced in our revised *Malaysian Code on Corporate Governance* (MCCG). The updated MCCG aims to facilitate boards in building long-term resilience as they navigate the challenges of a fast-evolving business landscape. This includes the need for boards to collaborate with senior management in managing environmental, social and governance risks.

The world requires about US$5 to US$7 trillion annually over the next ten years to fund the UN's SDGs. Malaysia alone requires RM45 billion in the next five years to finance its long-term development goals. We believe the capital market plays a critical role in addressing these funding gaps, particularly in the green, social and sustainable sectors.

As such, to encourage more green, social and sustainability project financing, we expanded the scope of our SRI Sukuk and Bond Grant Scheme (Scheme). This Scheme now applies to all sukuk issued under the SC's Sustainable and Responsible Investment Sukuk Framework or bonds issued under the ASEAN Green, Social and Sustainability Bond Standards.

To provide businesses, particularly MSMEs, with additional fundraising avenues, the SC has also encouraged the development of equity crowdfunding (ECF) and peer-to-peer financing (P2P financing) platforms. Since inception, these alternative fundraising platforms have benefitted close to 3,000 micro, small and medium enterprises (MSMEs).

We recently published the *Shariah Screening Assessment Toolkit for Unlisted MSMEs* (Toolkit) in order to guide Shariah screening within the MSME segment. We expect the Toolkit to spur more Shariah-compliant offerings on alternative fundraising platforms.

In addition, to further develop a supportive Islamic fintech innovation ecosystem for Malaysia's ICM, the SC and the UN Capital Development Fund launched FIKRA in May change to 2021. FIKRA is an Islamic Fintech Accelerator Programme that seeks to identify and scale relevant and innovative Islamic fintech solutions. This initiative is expected to encourage new ICM offerings, greater accessibility and social finance integration.

Looking ahead, an accessible, agile and more responsive global ICM will be essential for the post-pandemic reset. I hope that this roundtable will be able to set clear pathways forward, drawing on the collective wisdom of all participants.

SPECIAL KEYNOTE ADDRESS

HRH Sultan Nazrin Muizzuddin Shah
Royal Patron for Malaysia's Islamic Finance Initiative

In the name of God, the most Merciful and the Most Gracious. Distinguished guests, Ladies and Gentlemen.

It gives me great pleasure to address you at this year's 12th SC-OCIS Roundtable, the second of these events to be held virtually. As we approach the second anniversary of the emergence of COVID-19, the pandemic is not yet over. It is still dominating all our lives to some degree. While its total costs are yet to be counted, its impacts – in health, social, and economic terms – will undoubtedly be felt for many years to come.

If there was ever a time for the finance sector to step up, it is now. But it needs to do so with a new approach – one in which '*maqasid*' is reclaimed as the basis for transformative change, and '*mammon*' is jettisoned. This is one answer to the famous dilemma that "You cannot serve both God and *mammon*,"[1] posed by the

[1] Matthew 6:24.

great economist, J. A. Hobson, in 1931[2]. To put this another way, wealth must be valued for its distributive, and not its accumulative quality. The economy must be driven by generosity, not greed.

There has been some recovery in the first half of 2021. The IMF projects global growth of 6 per cent in 2021, moderating between 4 and 5 per cent in 2022. But a full recovery for global trade, investment and travel depends on rapid and equitable access to COVID-19 vaccines around the world.

This has not happened. Sub-Saharan Africa, where vaccine access is so far negligible, will be the world's slowest growing region this year.[3]

The statistics on the disruption caused by the pandemic are dire. Global trade in goods and services has declined by 12 per cent year on year, the deepest slump since the 2008 financial crisis.[4] World hunger is worsening. The number of people with inadequate access to food increased by 320 million in 2020, to reach 2.37 billion. An estimated one tenth of the world's population are undernourished. According to a UN report, Africa is posting the biggest jump. But what is scandalous is that many of the structural shortcomings relating to food insecurity and poor nutrition pre-date the pandemic.[5] These include conflict, climate change and natural disasters, economic downturns, poor governance, low productivity, and inefficient food supply chains.

These difficult times have exposed terrible global inequities. But periods of adversity can also bring out the best in society. Governments around the world have responded to the pandemic with rescue packages, extending these during second and third waves. The finance sector has played a major role in these efforts. Like their conventional counterparts, Islamic financial institutions have shown remarkable resilience in coping with the various moratoriums and write-offs that have been necessary, as well as the unexpectedly rapid transition to digitisation.

Many Islamic financial institutions are going that extra mile to help their customers, and thereby their countries' economies in these difficult times. Some are also innovating new ways of dealing with the implications of the pandemic:

i. Kuwait Finance House, for example, has written off US$65 million in customer COVID-era debts, benefitting 10,000 defaulting debtors against whom litigation had been started. This debt forgiveness action happened

[2] '*Maqasid*' or its complete phrase, '*maqasid al-shariah*', is the Arabic term referring to the underlying principles and spirit behind Islamic law to protect among other things: religion, life, livelihood and wealth and/or property. '*Mammon*' is the Aramaic word meaning 'wealth' or 'property.' For a classic account on the relations between economics and religion, first published in 1931, see J. A. Hobson, God and *Mammon*: The Relations of Religion and Economics (London: Routledge, 2012).

[3] *Fault Lines Widen in the Global Recovery, World Economic Outlook Update.* IMF, July 2021.

[4] https://www.imf.org/en/Publications/WEO.

[5] *UN Report: Pandemic Year Marked by Spike in World Hunger*, WHO News Release. World Health Organization, 12 July 2021. https://www.who.int/news/item/12-07-2021-un-report- pandemic-year-marked-by-spike-in-world-hunger.

following collaboration between the bank and the Ministry of Justice in Kuwait.

ii. Another innovating institution is Amana Bank, which is Sri Lanka's premier Islamic bank. It granted a year-end bonus to 2,000 children's savings accounts in 2020. This was part of a strategy to encourage parents to nurture the habit of regular savings for and by their children.

The great potential of Islamic finance to lead in an equitable, global economic recovery is demonstrated by the actions of the Islamic Development Bank (IsDB) during the pandemic itself. Of all the Multilateral Development Banks (MDBs), the IsDB may have had the greatest positive impact during the pandemic, with a few of its initiatives. After the World Bank, the IsDB has the second largest subscribed capital of any MDB, at US$70 billion. It mobilised its resources in response to the pandemic in several ways:

i. In 2020, it established a US$2.4 billion 'Group Strategic Preparedness and Response Programme,' to help combat the health and socio-economic impacts of the pandemic in member countries. This comprised soft loans, grants, private sector finance, trade finance, and credit and investment insurance.

ii. Jointly with its export credit agency, the Insurance of Investments and Export Credit (ICIEC), the IsDB also launched a US$2 billion COVID-19 Guarantee Facility. This is intended to support the private sector in COVID-hit industries, and to attract cross-border investments.

iii. In May 2021, it launched a US$850 million 'IsDB COVID-19 Vaccine Access Facility.' This complements similar facilities offered by its sister entities.

iv. The IsDB and ICIEC have also set up a 'COVID-19 Emergency Response Initiative'. This initiative, known as, 'The Islamic Solidarity Fund for Development', has been allocated a grant of US$400million to support the procurement of urgent supplies, such as medical resources and food, for member countries.

While these are all very welcome *maqasid*-inspired actions, they are undermined by their piecemeal nature. The challenge, then, is how to co-ordinate these scattered if impressive actions into a more comprehensive *maqasid*-driven agenda. What we must seriously consider is how to inculcate *maqasid* values into the very architecture of operational Islamic financial services. So that the legitimate quest for profits and wealth creation is balanced with the achievement of social good and positive broader impacts. So that the economy benefits not only the privileged few, but our wider society and communities. So that it is not a question of the economy servicing the rich, but rather of the rich serving the country. I believe the philosophy of *maqasid* has yet to be fully embraced across all the operations of the sector. This is how we can bridge the age-old gap between "God and *mammon*".

We must therefore ask ourselves whether finance in general, and Islamic finance in particular, requires a transformative change. Does the entire sector need recasting, with a new normal, post- pandemic, or even a new social contract, as current debates may imply?

No sector operates in a vacuum, of course, and in any society, all are expected to contribute to the common good. But our era is characterised by populist and increasingly polarised politics, by growing inequalities, racial and gender-based discrimination and violence, and inter-generational tensions over climate change. There are many such flashpoints of potential conflict, all of which have been exacerbated by the pandemic. What they reflect is an underlying fraying of the existing social contracts, which may no longer be fit for purpose. There is a growing sense that our systems are too heavily skewed against the interests of the majority. Too many people feel that they are only scraping by in the harsh new climate, or worse, that they are being left behind. Existing resentments and divides are deepening.

In the Islamic finance sector, we are fortunate that the *maqasid* philosophy provides us with the ideal template to address these troubling dynamics. It gives us a foundation for forging an agenda for transformative change that aims to heal these divisions and bridge these divides. It is now up to us to deliberate, consult, and formalise this common agenda. It must combine the rule of law; shared values; risks and rewards; and equal opportunities, in order to harness the resources and talents of everyone in pursuit of the greater good.

This agenda should introduce '*Maqasid* Social Goals' as the norm towards which all our financial institutions should strive. These goals, developed in consultation with regulators and industry bodies, should be incorporated into the constitutions of all the companies and institutions involved in the Islamic finance space. The social goals should include:

i. Adopting an 'Impact Investment' approach, by ensuring that all transactions and products contribute to the greater social agenda.

ii. Addressing inequality, by improving access for minority groups and women to education, employment and services of all kinds, as well as by ensuring decent wages and working conditions.

iii. Harnessing fintech and digitisation, so that all operations are implemented as efficiently as possible, thereby maximising positive social impacts.

iv. Strengthening mechanisms for good governance and oversight, in order to minimise damaging corruption and cronyism.

v. Promoting new connections between finance and philanthropy, for instance through public-private partnerships or PPPs.

PPPs are a key area where financial and philanthropic goals may coincide for the greater good. They play a particular role in funding infrastructure investment. Having been brought to a near standstill during the pandemic, infrastructure development now has the potential to serve as an important driving force in post-pandemic economic recovery. One estimate puts the current pipeline of global infrastructure projects at US$12 trillion, with rail and renewables the leading sectors.

A traditional barrier to private investment in infrastructure is exposure to risk. As the leading Shariah-compliant Export Credit Agency in the world, the ICIEC has sought to overcome this challenge during the pandemic, by forging strategic partnerships; ensuring the continuance of critical trade flows; and creating innovative de-risking solutions. Their approach of political risk insurance and credit enhancement serves to effectively de-risk and thus catalyse private investment into emerging markets.

The coming together of governments and the private sector to address complex societal needs jointly through PPPs is a growing trend in Asia. A survey by the Centre for Asian Philanthropy and Society revealed that 88 per cent of top Asian business leaders believe these partnerships will become more common in the next five years.[6] According to this report, successful partnerships leverage networks of trust, embrace champions and think long-term. To maximise their social impact, they must also be grounded in the principles of *maqasid*.

The urgency of the challenges confronting humanity cannot be overstated. It is my strong conviction that the Islamic system of economic and financial intermediation, based on the principles of *maqasid al-Shariah*, has become more relevant than ever. While we need to consolidate further our shared values and experiences, the response of the Islamic finance industry to the pandemic has shown that it can lead from the front, as opposed to merely following the consensus. We now have to be even more proactive, by developing a common set of Social Goals for the sector, based not only on global best practice but also on *maqasid*. This will enable us to deliver the real social impacts that are so sorely needed.

It is my fervent hope that the industry will embrace this vital challenge and set out a strong and practical agenda for *maqasid*-based transformative change. I wish you all a fruitful conversation over the next two days, as we work together towards achieving this noble ambition!

[6] *Public-Private Partnerships for Social Good: Rethinking PPPs.* Centre for Asian Philanthropy and Society. Hong Kong: CAPS, 2021.

SESSION 1

BUILDING A SHARED FUTURE THROUGH ISLAMIC FINANCE

CHAIR
Nash Jaffer
Director, Leadenhall Partners, UK

The Structure for the Framework of Islamic Finance and the New Social Contract – Embracing New Dimension for Islamic Finance

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Mohamed Iqbal Asaria
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SC-OCIS Scholar in Residence 2020/21

QUESTIONS AND ANSWERS

SESSION SUMMARY

KEY TAKEAWAYS

CHAIR'S OPENING REMARKS

Nash Jaffer
Director
Leadenhall Partners, UK

The first session, 'Building a Shared Future Through Islamic Finance', is about taking a step back and reflecting on the purpose of Islamic finance. What distinguishes Islamic finance from other financial systems, mechanisms, and institutions that currently exist? It is Islamic finance's inherent virtues and values. The objectives around equity and inclusion have to be part and parcel of people's participation in Islamic finance. These objectives are what attract people to Islamic finance. We seem to have lost our way in the development of Islamic finance over the last few decades. Islamic finance has focused more on the form of Islamic financial contracts rather than the substance of Islamic financial principles by adapting existing financial mechanisms to meet the Shariah requirements. Essentially, Islamic finance has been shoehorned into existing conventional financial systems. By doing so, Islamic finance seems to have lost its values along the way.

What we need is a new social contract between individuals and institutions specific to Islamic finance, which can help build more resilient societies and serve the common good, not only for Muslim communities but also for humanity. How should this new social contract fit into existing social contracts? Can it coexist with other social contracts? The COVID-19 pandemic has exposed the need for a revival of Islamic finance, one that includes the requirements for a new social contract that can provide social security, shared risks, and opportunities to the society. How can Islamic finance lay the foundations for a balanced approach between realising the benefits of a market-based system and achieving social objectives? How can Islamic finance participate and lead in the environmental, social, and governance (ESG) space?

PRESENTER

The Structure for the Framework of Islamic Finance and the New Social Contract – Embracing New Dimension for Islamic Finance

Mohamed Iqbal Asaria
Director
AFKAR Group of Companies, UK

I feel happy that my wish of embedding *maqasid al-Shariah* into our discourse has finally come true. Up to now, similar to CSR practices, box-ticking exercises are taking place in Islamic finance. Based on the speeches delivered during the introductory session, it is clear that there is a seriousness to the discussion of embedding *maqasid al-Shariah* into Islamic finance and making them the core of our discourse rather than an afterthought.

The subject of this session is 'Building a Shared Future Through Islamic Finance'. In this session, I would first like to summarise the issues emerging from the global financial crisis (GFC) in 2007 when the global financial system went on life support. Strangely, the free market has had to be on life support for over 10 years. Then, I will discuss what we have done in the past 40 years of contemporary Islamic finance. Have we moved from where we started to worthwhile causes? Next, I will reflect on the role of faith and morality in finance and how they have been conspicuously absent from the modern financial discourse. Indeed, the time has come to place faith and morality at the centre of our discourse – as His Highness Sultan Nazrin hinted, *mammon* has to be suppressed and God has to be elevated. Or, in the words of the famous poet Muhammad Iqbal, when bank buildings are several times bigger than church buildings, the roles of God and *mammon* can easily be reversed. We have to resist this reversal.

I also will review several developments in Islamic finance that provide a glimmer of hope for the way forward. However, these developments have been subsumed by several new emerging challenges. These include not only the COVID-19 pandemic but also climate change and the rise of populism, both of which have been the outcomes of the global financial paradigm. Together, these new developments and challenges offer us a window of opportunity to incorporate the perspective of our faith in financial discourse because the self-assured hubris among the supporters of the neoliberal system has been called into question. They can no longer say to us that we are living in the past as they have nothing to offer. If we can offer concrete solutions to the current predicament, we have an opportunity to inspire change.

Furthermore, I would like to discuss the role of the IsDB in underwriting some of the risks associated with the transformation of Islamic finance. To fulfil this objective, the IsDB's mandates need to be properly evaluated and validated so that member countries can be supported in undertaking the transformative agenda. Lastly, I will put forward a few suggestions for the way forward for Islamic finance.

It has now become very clear that the root causes of the GFC were excessive debt and financial engineering, especially the promotion of unsustainable consumer finance. These resulted in a financial system with widespread monopolisation of gains and socialisation of losses. It is like sending someone to a casino and saying to the person that the winnings will be yours, but if you lose, I will pick up the bill. Clearly, the person would never leave the casino. This exact situation is still happening within the conventional financial system supported by neoliberalism. To make matters

“... to discuss the role of the IsDB in underwriting some of the risks associated with the transformation of Islamic finance. To fulfil this objective, the IsDB's mandates need to be properly evaluated and validated so that member countries can be supported in undertaking the transformative agenda.”

worse, these unsustainable practices continue to be promoted by deregulation, all in support of the belief that a free market would deliver both economic efficiency and social good. But, it has not. Instead, it has resulted in inequality. There have been no trickle-down effects. The existing market system has led to the emergence of populism and extremism. So, with neoliberalism largely discredited because of the GFC, we have an opportunity to observe what comes to replace it. Muslims are not the only people who are thinking about this issue. Many other faith and non-faith groups are thinking about the same issue. However, we have the opportunity to take a leading role.

Let us now look very quickly at the emergence of Islamic finance. The growth of Islamic finance from the mid-1970s was built on reverse engineering of existing financial products. By reverse engineering existing products, we produce clones of the originals, and in some cases, inferior clones. For Islamic finance, reverse engineering practices resulted in the predominance of debt instruments, which has been the primary substance of conventional finance. To create Shariah-compliant debt instruments, we had to find workarounds for *riba*, and we had to have Shariah regulatory and tax arbitrages. We had to prioritise the form of Islamic finance and ignore its substance, which is fundamentally based on the idea of *maqasid al-Shariah*. As I said, *maqasid al-Shariah* only featured as an afterthought. Considerations of whether a financial product accords with *maqasid al-Shariah* and is ethical were not as important. In sum, in the first phase of Islamic finance, ESG, SRI, and SDG concerns were not addressed proactively.

It is now becoming clear that the role of faith and morality in finance has been missing. However, a leading global financial newspaper, the *Financial Times*, recently introduced a regular section called *Moral Money*. Ten years ago, this would have been unimaginable, and people would have questioned why morality should be considered in finance. Now, even the *Financial Times* has been discussing the issues around morality and the economy. Former Governor of the Bank of England, Mark Carney, in his Reith Lectures, has spoken about the need for having morality in finance. In drawing lessons from the GFC and its aftermath, we learned that nothing illegal was committed. This means that the whole legal edifice had been cleverly designed to preserve the practices that led to the GFC. Mark Carney has also pointed out that the whole idea of neoliberalism was based on a false reading of Adam Smith, who introduced the concept of the invisible hand in his book *The Theory of Moral Sentiments*, claiming that the market would deliver an outcome that is not only efficient but also moral. Adam Smith referred to moral actors participating in the market, not charlatans.

The main faith figure at the global level who has spoken against neoliberalism is Pope Francis. Pope Francis comes from Argentina and the heritage of liberation theology. He has suggested that the role of churches is not to feed the poor. This is certainly important, but the bigger role is to stop poor people from being produced. He has put forward a suggestion that neoliberalism is like a structural sin. Therefore, we need to bring morality into our economic and financial affairs and ignore the claim of classical economists that taking morality into our economic and financial considerations will harm the efficiency of our decisions. The issues of justice and equity are quite central to Pope Francis' critiques of neoliberalism. Of course, he has not gone as far as he could have. He has also now mitigated his trenchant criticism against neoliberalism by starting to talk about purposive or inclusive capitalism, which suggests that we still can place our hope in capitalism.

These discourses allow us to reflect on Islamic teachings on justice and equity. We have been discussing the questions of *riba*, *zakat*, and *waqf* throughout history, as well as their impacts at different times. What we need to do now is to go back to the roots of these concepts and consider how they can operate in contemporary circumstances. It is no longer sufficient to say that because we had a good *zakat* institution at a certain point in history and a good *waqf* institution at another point in history, we can just replicate them now. The lessons from the successes and failures of these institutions need to be embedded into our current discourse. Although we may have missed the opportune moment to inspire a fundamental change to our economic and financial systems after the GFC, we still have the opportunity to offer Islamic perspectives on justice and equity. Economic efficiency should not be at the centre of our discourse. Instead, morality and justice should be prioritised.

There are critical markers in the evolution of Islamic finance that give us hope for a better financial system, such as recent developments in micro-*takaful* and *zakat*. Several institutions in Sri Lanka, Malaysia, and Indonesia have used *zakat* to contribute to micro-*takaful* premiums for the poor. These arrangements aim to leverage *zakat* to make microfinance lending much more robust and reduce default rates. Certainly, there are jurisprudential issues to be considered. Shafi'i jurists have been much more accommodating of such innovative practices than Hanafi and Maliki jurists. Regardless of the jurisprudential issues, these practices can lead to greater financial inclusion.

> “To create Shariah-compliant debt instruments, we had to find workarounds for *riba*, and we had to have Shariah regulatory and tax arbitrages. We had to prioritise the form of Islamic finance and ignore its substance, which is fundamentally based on the idea of *maqasid al-Shariah*.”

Another example of the critical markers in the evolution of Islamic finance is Malaysia's efforts to introduce value-based intermediation (VBI). What should the outcomes of financial intermediation be? We do not want intermediations for intermediations' sake. We want to focus on the outcomes of these intermediations, and a framework has been introduced to support outcome-oriented intermediations. It will take a few years of operational experience to observe the kind of impact the VBI can have. Once initial evaluations of the framework are available, there will be room for improvement.

The third example is ESG screening. It is an area that I have been personally involved in. We have done extensive ESG screening of funds to see whether they are compatible with the Shariah. We have found that the investable universes of Shariah-compliant stocks and ESG stocks are not necessarily congruent. In our study, the overlap was about 40 per cent, which means that the two screening methods are different and they may disagree with each other. We have also devised several indices that combine ESG and Shariah screens to study their performances. However, I am not saying that the existing ESG criteria are preferable. The discourse on impact investing and ESG are still Western-centric, and they may not be equally applicable in all Muslim countries facing different challenges.

The fourth development was the conversations around contingent convertible bonds. After the GFC, the concept of contingent convertible bonds has been discussed widely in the context of crisis management, allowing fixed-income instruments to be converted into equity if pre-specified events occur. This concept has brought conventional finance closer to Islamic finance. However, non-bank corporations and sovereign funds have not taken up this concept. In addition, banks have been asked by regulators to maintain their Tier 1 capital base at 10 per cent. This is better than the previous requirement to maintain a capital base at 3 per cent, but it is still nowhere near good enough. As we move towards funding infrastructure projects to support a post-COVID-19 recovery, we need to make sure that we utilise these different structures and requirements, in particular, in PPPs' projects. An appropriate allocation of risk is very important to generate ethical and just outcomes.

Another development worth mentioning is the increase in the issuance of green sukuk, as seen in Malaysia, Indonesia, and several other countries. These are not large issuances, but still good beginnings. However, a new debate that has received considerable attention is greenwashing. A sukuk does not become green by calling it green. Again, we have to embed *maqasid al-Shariah* into the design of *sukuk* to ensure that they can fulfil their objectives. Regarding the new evolution of Islamic finance, many people are actively revisiting the concepts of *riba*, *zakat*, *waqf*, and other social safety nets, as well as their understanding of these concepts through Islamic history. Fortunately, the champions of conventional finance have largely been discredited by the apparent failures of neoliberalism. As such, we have a much more open field to debate various economic and financial issues and promote our solutions.

Muslims around the world still face challenges related to access to financial services. Even today, only around 30 to 40 per cent of the population in Muslim majority countries have access to formal financial services. The rest either have no access to any form of financial services or if they do, they only have access to predatory lenders. There is an enormous opportunity for Islamic finance to contribute. However, it is not easy for financial institutions to serve these segments of the population, especially those that are funded by private investors. We need to find innovative ways to enable financial services to reach a larger share of the population.

Fortunately, parallel to these developments, there has been some progress in access to technology. Over 75 per cent of the Muslim population has access to cell phones, which should enable us to improve access to financial services for the poor. I have not seen Islamic banks becoming active in this space. Although we have seen the rise of Islamic fintech, when we consider whether they meet the objectives of financial inclusion, we can see that most of these fintech companies are only designed to provide services to those who are already financially included.

Improving financial inclusion cannot just be about using technology. When we used 2G networks, our phones could last for a week before needing to be charged. Phones using 5G networks need to be charged up to five times a day. Without sufficient access to electricity and power, technological devices become useless. Companies like M-PESA in Kenya have done remarkable work using 2G networks to deliver services. We need to study and learn from their experiences. Financial inclusion is certainly a basis for the attainment of *maqasid al-Shariah*.

We have seen banking groups such as Grameen Bank and BRAC Bank in Bangladesh in the space of microfinance. I have had several opportunities to discuss with both Professor Muhammad Yunus and Fazle Hasan Abed issues related to microfinance. For them, the critical question has always been about the empowerment of people. They both suggested that technology has helped them cut the costs of delivering financial services to the poor. Those of you who are familiar with the situation in Bangladesh can verify that if you visit the country and need to buy a sim card, one of the best companies offering it is Grameenphone. It was initially launched by Grameen Bank for its customers. Now, it has grown, and its products and services are available throughout the country for residents and visitors. As a development economist, I am amazed to observe the economic growth of Bangladesh, which has been around 2 per cent higher than India or Pakistan. This impressive growth has been partly due to the contribution of microfinance. As we can see from this example, whole segments of society can be empowered by emphasising empowerment.

Regarding our studies on the performance of different indices, including the FTSE Developed Shariah, FTSE4Good Developed, and FTSE Developed, as well as the combination of FTSE Developed Shariah and FTSE4Good Developed, we observed that all indices moved reasonably in tandem. As such, there is little truth to the claim that we cannot mix ESG and Shariah screens. The combination of FTSE Developed Shariah and FTSE4Good Developed performed relatively well. This makes it very clear that if we can combine ESG and Shariah requirements when developing stock indices, we can expand the reach of Islamic finance to not only Shariah investors but also ESG investors.

We have to move away from excessive debt and financial engineering. We have to re-evaluate the growth paradigm – that we can keep growing the economy. We cannot continue increasing global production because resources are finite, or else we risk multiplying our existing problems.

We have learnt key lessons from the COVID-19 pandemic and the rise of vaccine nationalism. The rise of nationalism across the world is not very helpful in delivering solutions to the problems of climate change. Global co-operation, understanding, and sacrifice have been missing. We have to figure out a way to develop global responses. Another key challenge, especially relevant to our countries, is the dependency on fossil fuels, especially in the Organisation of Islamic Cooperation (OIC) member countries. This is a big challenge. Without eliminating our dependency on fossil fuels, we cannot hope to resolve climate issues.

If we take a moment to focus on the issue of vaccine nationalism, we can observe that the vaccination rates in developed countries have reached an average of 70 per cent. In other countries, the average is only 10 per cent. Developed countries have been reluctant to distribute vaccines equitably and have been hoarding more vaccines than the amount required for their countries. This is very depressing.

Climate change has encroached upon us imperceptibly and incrementally. There are no market mechanisms to deal with climatic issues. Markets cannot say that they are externalities because they are clear market failures, and we need to find ways to deal with them. We will also have to revise global agreements such as intellectual property and investment management regimes. We need to empower the IsDB and clarify its mission to make sure that it can support some of the changes that we need to make to transform Islamic finance.

There are positive developments in the global financial industry. People are now beginning to realise that the neoliberal paradigm is no longer a viable system. This allows us to offer an alternative system based on *maqasid al-Shariah*. The way forward is to link *maqasid al-Shariah* to the SDGs and to empower communities through targeted funding based on measurable outcomes. We should not just make a wish list. Like the SDGs, we need to ensure that we develop mechanisms to measure our progress against our goals. The Islamicity Index is an interesting example. It shows several critical goals that we should be aiming for based on several human development parameters. Unfortunately, in this ranking, Muslim majority countries have been ranked quite low. It is worth noting that some of the parameters used will need to be revisited because they are Western-centric. We need to consider them from our worldviews.

We also need to develop valuation models alternative to the dominant discounted cash flow (DCF) models. DCF models are diametrically opposed to sustainability. Sustainability cannot be viewed over a short time; it needs to be considered over longer periods. For example, if a country wants to adopt sustainable forestry, then it needs to consider the need to replant trees after they have been cleared for timber. This whole cycle requires a longer time commitment. Furthermore, we need to develop risk-sharing non-equity capital solutions to expand existing risk-sharing practices.

In sum, I am very glad that we are now beginning to embed the idea of *maqasid al-Shariah* into our discourse, but we have a long way to go. We cannot just pretend that we have all the answers and that we do not need to act. We need to do a lot. Now, for the first time, we have an open field to promote our approaches. Nobody can say that we are talking nonsense, and that we do not know what economics is about. They do not know what it is about either.

RESPONDENT 1

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Thank you, Professor Asaria and the distinguished speakers for reflecting on the ideas of *maqasid al-Shariah* and the transformational role of Islamic finance in promoting equity and inclusion. These ideas have been on my mind for some time, and I am really happy to see that these ideas that I have been promoting over several years were mentioned by the distinguished speakers. Such ideas would have been unheard of five years ago. When I began raising these issues, I was labelled utopian. So, it is rather enjoyable to see that my utopian ideas have now become a common language in the face of the current challenges we face. These challenges also allow us to bring Islamic finance back to its basics, which are the foundational issues and principles that can give us hope to make the world a better place through Islamic finance.

I would like to focus on the question of the transformational role of Islamic finance in promoting equity and inclusion and, in particular, the need for new definitions of key terminologies. Professor Asaria discussed an example from the Catholic Liberation Theology. When we compare the Catholic Liberation Theology to the pragmatic approaches of Islamic finance and the underdeveloped Islamic economic theories, we have to admit that we have very much contributed to the current problems we are facing now. In other words, we need to acknowledge that feeding the poor is good, and it is our duty to feed the poor. However, we need structural responses to structural problems. These responses can be initiated by Islamic institutions, such as *zakat* and *waqf*, to develop a sharing economy. This sharing economy will also include economic and financial institutions such as Islamic banks and financial institutions. Islamic banks and financial institutions must reformulate their governance and organise their affairs to respond to the current challenges and improve the lives of human beings. We cannot limit Islamic banking and finance to only Shariah-compliant transactions – that as long as one person sells to another person in a Shariah-compliant way, the transaction is *halal*. What is important is the outcomes of the transaction and whether they result in any positive impact.

Professor Asaria also discussed how the goal of establishing a sharing economy could be achieved. In particular, in recent years, we have seen the emergence of financial inclusion as a new development paradigm. It is a really exciting development, and it excites me as a critic. However, I am also very concerned about the consequences of this paradigm. So far, what we have been seeing is increasing indebtedness among the poor. In other words, financial inclusion initiatives have created indebted human beings as opposed to empowered human beings. Therefore, the financial inclusion paradigm must be linked to empowerment because Islamic worldviews promote emancipation and empowerment. Unfortunately, I fear that the financial inclusion paradigm has been promoting and expanding debt culture and consumerism. These debts often originate from consumer-based financing, which has now constituted a significant share of financing from Islamic banks. Newly emerging sustainable financial products such as green finance are positive developments. However, we hope that a new *maqasid al-Shariah*-based paradigm can be developed for Islamic banks and financial institutions.

One of the emerging issues that we need to pay particular attention to is the COVID-19 pandemic. The COVID-19 pandemic has demonstrated to us that the well-being of one individual is intrinsically linked to the well-being of others. In other words, if I want to be free of COVID-19, I have to ensure that other people are also free of COVID-19. This is very much an Islamic quality. This lesson should give us an important foundation through which we can redefine the values that Islamic banks and financial institutions should aim for. At the core of this lesson are the principles of a sharing economy. However, so far, the focus of our economy and financial systems, including Islamic banks and financial institutions, is on shareholder wealth maximisation. When we previously questioned this approach, we were told that Islamic banks and financial institutions were not charities. This view remains prevalent among Islamic bankers and Shariah scholars. Now, even the conventional finance industry is shifting in a new direction towards realising the SDGs. This shift, however, still does not address the root causes of the problems we are seeing now. The promoters of this shift are willing to help the poor but are not willing to ask why the poor are poor. Nevertheless, this shift is still a positive development.

We need to define the transformational role of Islamic finance in promoting equity and inclusion. We need to define the principles of Islamic morality and operationalise them for Islamic banks and financial institutions. These definitions of the roles and principles of Islamic finance need to go beyond the dominant paradigm in conventional finance, which is based on shareholder wealth maximisation. Instead, these principles should be based on the Islamic worldview, which considers all stakeholders. Rather than focusing on efficiency and maximisation, we need to focus on *falah* (the happiness and emancipation of individuals). As the COVID-19 pandemic has demonstrated, the happiness and well-being of human beings is also very much dependent on the well-being of other non-human stakeholders, such as the environment. We need to socialise the role of *ihsan* (beauty and kindness) by striking a balance between the needs of different stakeholders. As part of our discourse, we also need to consider the outcomes of our activities beyond linear development models with a hyper-focus on economic growth that has been imposed on us. The focus on profit maximisation and efficiency has not helped us face emerging challenges. We will not be able to avoid the spread of COVID-19 unless we overcome inequality. Unfortunately, the unequal distribution of vaccines proves that we are far from achieving this goal.

How can Islamic banks and financial institutions initiate this transformation? Beyond the existing focus on corporate social responsibility, these organisations need to embed the Islamic concepts of *adalah* and *ihsan* (justice and kindness) into their organisational ethos. We need to strike a balance between the needs of different stakeholders. Allah has created the world with *mizan* (a perfect order). Therefore, any departure from the perfect order requires *islah* (the betterment of existing situations). These concepts should be the foundations of the transformation of Islamic finance in creating a sharing economy. As part of our efforts to redefine Islamic finance, we need to go beyond the surface – beyond the form of Islamic financial contracts. This transformation is a long-term project.

If we reflect on the concept of *iqtisad*, a term that is often translated to refer to economics, it is not only referring to economics but also certain higher objectives. These objectives are justice and equality – giving rights to everything, including the environment, land, labour, and other stakeholders. We need to give each its rightful due to establish justice. If we reflect on the prohibition of *riba*, it is beyond just ensuring that the transfer of capital from one individual to another is free of *riba*. This is a very instrumentalised understanding of *riba*. At the heart of the prohibition of *riba* is a political-economic issue. It is about overcoming the hegemony of capital over human beings and other stakeholders. Capital cannot dominate other stakeholders.

What about *zakat*? *Zakat* is not an act of charity, but it is an intentional act of compensating society for being excluded from the shared resources that Allah has created because of private ownership. Privatisation is essentially an expropriation of the right of society to a shared resource that has been given by Allah. In essence, the prohibition of *riba* and the requirement of *zakat* both aim to prevent expropriation. We often hear a claim that if everyone were to pay *zakat*, the world would be free of any poverty. But, a world free of poverty will require a redefinition of *zakat* based on the Islamic worldview rather than treating it as a form of charity.

The new social contract that we are hoping to formulate should not be a perpetuation of the existing practices. The SDGs are an amazing global aspiration, but they do not question the root causes of our problems. The SDGs are still supporting the current systems that are based on capital domination, though they try to alleviate some of the problems that have been created as a result of the current systems. The current systems will continue to generate more problems in the future. Therefore, we need to devise new solutions. We have to focus on the root causes of the problems. The poor are poor because of structural problems, and structural problems require structural solutions.

Unfortunately, we have been thinking inside the box. Islamic finance is not an alternative to conventional finance, but it is only a continuation of the existing conventional financial systems. How can we become a true alternative to conventional finance? The Islamic ontology tells us that what we have around us is a privilege. It is not a right but a privilege. Shariah scholars and Islamic bankers have continued to focus on shareholder wealth maximisation, which is a rights-based understanding of wealth based on a Eurocentric modernist ontology. We need to focus on all stakeholders based on the understanding that all resources are created by Allah, and they are a privilege. When Prophet Muhammad migrated from Mecca to Medina, he made the *ansar* and the *muhajirun* common stakeholders. He did not ask the *ansar* to give charity to the *muhajirun*. The relationship between the two groups was not based on charity. It was a new social contract based on the sharing of resources between two communities.

Finance is very much fictitious, and Islamic finance is operating within that fictitiousness. The domination of resources is continuing. Even after their distribution, we still are not able to make the resources available to everyone. Therefore, we have to overcome the imposition of market logic that has defined the existing financial systems. Islamic banks and financial institutions still operate within the same systems. Data has shown that Islamic finance is still debt-based. The transformation of Islamic finance requires an approach based on *maqasid al-Shariah*. People make a lot of claims regarding *maqasid al-Shariah*. The concept of *maqasid al-Shariah* has been instrumentalised to achieve certain commercial objectives rather than being used to provide the philosophical foundations for a sharing economy. Everyone in Islamic finance says that *maqasid al-Shariah* is important. What is the concept of *maqasid al-Shariah*? We have to move beyond the instrumentalisation of Islamic ethics. We need to focus on authentic understandings of Islamic worldviews.

Regulatory authorities have to come to an understanding that they should not regulate Islamic banks and financial institutions with the same legal policies that apply to conventional banks and financial institutions. These two institutions are operating under two different paradigms. They have different foundations, and these differences should be reflected in their operations. When the same policies are imposed on these distinct institutions in the name of ensuring a level playing field, they undermine the objectives of having the two alternative systems. We have to create a new opportunity for Islamic banks and financial institutions to realise their main objective, which is to enable individuals to have access to resources rather than creating more debts in the name of financial inclusion.

RESPONDENT 2

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When I was young, I wanted to explore religion. One of the questions that disturbed me was raised in two faith traditions that I was familiar with: Am I my brother's keeper? Somewhat oddly, one tradition said that I am not, but we will collectively take care of you and your community. Another tradition also said that I am not. The two answers were quite disturbing to me, and my journey ultimately led me to Islam which answered the question affirmatively: Absolutely, you are.

What underlies the discussions we have been having today is the question of our duties as Muslims and how we should use *maqasid al-Shariah* to perform these duties when we lack clear textual mandates from the Quran and Hadith. There are certain mandates in the Quran that are clear. For example, Allah has told us to engage only in transactions that are free of *riba*. The nature of *riba* is regressive. It impedes the free flow of wealth. In Ibn Ashur's discussion of *maqasid al-Shariah* and wealth, he said "we need to have a free flow of wealth for its protection". In other words, if wealth is being accumulated and hoarded, it will become less valuable to society. However, the Quranic mandate to avoid *riba* is clear and does not require *maqasid al-Shariah* as a jurisprudential tool. *Maqasid al-Shariah* is used by Islamic scholars to understand how to develop jurisprudential opinions in the absence of clear textual mandates. It is important to me that when we discuss *maqasid al-Shariah*, we define what we mean by *maqasid al-Shariah*. If we have different definitions of *maqasid al-Shariah* from those of Imam Al-Ghazali or later scholars, we should explain why they are different.

Regarding the development of Islamic finance, when we first established the Islamic finance industry around 50 years ago, many Muslims were not able to manage their financial affairs without *riba*. Certainly, wealthy individuals could always find an alternative for themselves; however, the poor were always excluded. The first evolution of Islamic banks helped many Muslims fulfil the textual mandate of not being associated with *riba*. Was there a violation of the spirit of Islamic finance during this first evolution of Islamic finance? I do not think there was. It is very harmful to suggest that Islamic finance has failed. It has not. However, now we want to continue its progress.

Regarding the discussion on debt, my questions are: Is debt wrong? Should the solutions we seek for certain financial issues come from the banking system as opposed to other financial systems? If we wish to use the banking system, we will be pushed in a particular direction given the rules governing the banking system. Other systems will have different sets of rules depending on the global regulatory systems. We should not demand that the Islamic finance industry offer solutions that it cannot provide, given the current regulatory frameworks.

I do not think there have been box-ticking practices in the Islamic finance industry. I reject the argument that Islamic finance has been engaging in box-ticking practices, and I further reject the argument that we have lost our values. In developing some of the first Islamic mortgages in the US, we intentionally included in our target groups members of the African-American community, who tended to be from a low-income community, in our attempt to solve part of the housing issues. I have been involved professionally in this activity for the last 20 years. It is neither about a lack of will and desire nor a loss of way. It is about dedicating resources based on opportunities.

The issues of impact measurement have become very important. Five years ago, very few people were thinking about impact measurement within the Islamic finance industry the way we do today. I had a very intriguing experience just two years ago before the COVID-19 pandemic related to the issuance of a green sukuk by a large commercial firm based in the United Arab Emirates. Some people claimed that the issuance of the green sukuk was just a way for the firm to get cheap money and improve its corporate image. When I was in Cairo, I drove past the firm's facility, which I had seen many times in the past. Its open-air parking lot was no longer there; now, it has a covered parking lot with solar panels. All of the water used was recycled wastewater from within the facility. Behind the scenes, in this particular case, the aim of the green sukuk issuance was fulfilled.

When we talk about what we want to achieve for Islamic finance, we should aim to build upon what has come before us rather than tear it down. There were a lot of important issues that Islamic finance practitioners had to solve and prioritise.

Thomas Friedman's view of a sharing economy, introduced around 10 years ago, was based on the idea that we share everything we have. Rather than focusing on a sharing economy, we should focus on a stakeholder economy, which represents an emerging response to neoliberalism. In the last 50 years, Milton Friedman's famous article pushed the Western world into thinking differently about the economy than it previously had been in the post-war era. The post-war era required a response to growing economic precarity. However, we see now that even when people are employed and have sound jobs, they can no longer provide for themselves, their families, and their communities. They have become more precarious. So have their children. One of the causes of Brexit and Donald Trump winning the election was people responding to the precarity in their lives. How can we, as Muslims who are engaged in Islamic finance, address the question of precarity within our wider communities? This could be the perpetual precarity of the poor countries, or the failures of many countries, Muslim and non-Muslim majority countries alike, to address their citizens' needs and create better opportunities for them.

Regarding the example of Bangladesh shared by Professor Asaria, during my last trip there, I met some of the senior officials of Islami Bank Bangladesh. They expressed frustration that although their bank had the largest microfinance programmes in the country, Grameen Bank received all the credit for introducing and popularising microfinance. Fifteen years ago, Bangladesh was a hopeless country, more than Pakistan and India. Today, it is surpassing them in developing a strong middle class, increasing its economic growth, and creating opportunities for its people. Microfinance has played a significant role in developing an environment conducive to achieving these goals.

If we reflect on the need for wealth preservation as part of *maqasid al-Shariah*, this principle does not refer to the preservation of my own wealth. Instead, it refers to the preservation of the wealth that Allah has entrusted us with. We owe this wealth to Allah. If we reflect on the root of the word '*deen*' (religion), it is the same as '*dayn*' (debt). We owe this wealth to Allah, and we have been entrusted to oversee His creations and to play a role in preserving them and using them in the best way possible.

When I look at a yacht, I will not say that Islamic banks should never finance the yacht. Instead, I will ask myself: Will the owner employ more people by purchasing the yacht? Will there be an ecosystem of support around the employment? Will the employees be paid fairly? Will they have better opportunities by working there? Will the purchase create benefits for people fairly and sustainably?

Although we have been feeling very hopeless today regarding the challenges around climate change, vaccine distribution, and other issues, we should never lose hope. Around 35 years ago, when we were informed of the hole in the ozone, we figured out how to co-operate, and we addressed it. Maybe it will require humanity to get to the edge of the precipice before we act, but we have done so before, and we can do it again. We need to continue giving others a little nudge to co-operate and collaborate to make the world a better place.

QUESTIONS AND ANSWERS

TAN SRI ABDUL WAHID OMAR
Chairman, Bursa Malaysia Bhd

I think it is very important to ensure that as we try to find new ways to transform Islamic finance, we do not discredit the efforts that we have put in over the past 40 years. We need to acknowledge that when we build a new solution, it must aim to address a certain problem. In the case of the Islamic finance industry in its early days, it was about providing Shariah-compliant financial products to Muslims as alternatives to conventional financial products, including investment, deposit, and home mortgage products. The approach that we have taken has been very pragmatic and successful. For example, a Muslim with RM50,000 in savings would not want to invest in risky assets. The person might need the money to be available immediately in times of need. Likewise, the people who want to purchase a house would not want to be financed by a *musyarakah*-based financing facility. Most of them earn a fixed salary; and prefer to allocate a certain percentage of their income to pay their mortgage, hoping that by the end of their mortgage tenure, they would have their mortgage fully paid and the value of their house increased.

Our pragmatic approach has contributed to the growth of Islamic finance in Malaysia. In particular, 41 per cent of total loans in Malaysia are Shariah compliant. For several Islamic banks, such as Maybank Islamic, the Shariah-compliant financing segment accounts for 60 per cent of their total loans in Malaysia. It is important for us not to discredit what we have achieved in the past as we find the way forward for Islamic finance.

In addition, we must consider other segments beyond banking if we want to do something different. Banks are not structured to provide innovative forms of financing. In many cases, fund management is a critical segment through which we can develop innovative financial products and solutions, such as *waqf*-based financing and social finance.

Regarding the ESG and Shariah screening, when we were developing the FTSE4Good Bursa Malaysia Index in 2014, we evaluated over 300 counters. Only 24 counters fulfilled the ESG screening requirements. Today, this number has grown to 76 counters. In June 2021, we introduced the Shariah-compliant version of the FTSE4Good Bursa Malaysia Index. We found that from the 76 counters that met the ESG screening requirements, 54 were Shariah-compliant. There are a lot of commonalities between the two screening methodologies. We need to encourage more Shariah-compliant companies to embrace the ESG elements holistically.

MUHAMMAD MEKI

Professor Asaria discussed an interesting overlap between ESG and Shariah screening. He found only a 40 per cent overlap between Islamic and ESG counters. How could this overlap be expanded? Is it a matter of getting the Shariah-compliant counters to become ESG-compliant or vice versa?

MOHAMED IQBAL ASARIA

There are problems with both of these approaches. For example, Shariah-compliant indices have no restrictions on investments in fossil fuels. However, Shariah-compliant fossil fuel companies will be excluded from ESG indices. On the other hand, ESG indices have no restrictions on debts. These are good examples of the two key areas where these two screening methodologies diverge. Fortunately, ESG screening methodologies have started to consider the danger of excessive debt. The Islamic finance industry has an opportunity to explain our perspectives on excessive debt to those who are involved in developing ESG indices.

Those involved in developing Shariah screening methodologies have not come to grips with climate change and sustainability issues. We will need to move in this direction. It is still a long way ahead. I am not trying to discredit the development of Islamic finance so far. I know that a great deal has been achieved. But, we need to discuss the next steps. Young Muslims are now concerned about ESG issues. We need to make Islamic finance much more relevant to them.

RAFE HANEEF
Chief Executive Officer
Group Transaction Banking
CIMB Group Malaysia

The Islamic finance industry has been shoehorned into the tight box of the conventional financial system. The reality is the conventional financial system has an unfair advantage over the Islamic financial system because of tax benefits, access to a lender of last resort, and other support. Together, these incentives would make the Islamic finance industry less competitive and less attractive if they were to only focus on *mudharabah*-based financing. The next stage of the evolution of Islamic finance should not only be about shifting the Islamic finance industry towards profit-and risk-sharing but also ensuring that the conventional financial system does not continue to create more debts. We cannot let the conventional financial system continue growing by expanding debt-based financing, which is injurious to the whole economy. This requires a reform of the conventional financial system.

It is also important to link this reform to sustainability. In 2020, the IMF published a report which suggests the need to shrink the size of the financial sector to reduce inequality. After it reaches a certain stage, further growth of the financial sector is no longer beneficial to society. Islamic finance needs to encourage conventional finance to be more aligned with Islamic principles within the umbrella of ESG. We need to show that excessive debt is injurious and can lead to inequality.

ABDULKADER THOMAS

We should be careful about suggesting that we should be moving closer to ESG. We should have our own ESG. I could imagine a winery that uses solar power, provides fair wages and offers profit-sharing arrangements to its employees. This winery would satisfy the ESG requirements, but we could not make the winery Shariah-compliant. The ESG approach in conventional finance can sometimes result in an outcome that is different from what we want to aim for. We need our own ESG approach.

SESSION SUMMARY

PROFESSOR DR MEHMET ASUTAY

A major challenge we are facing now is sustainability. Unfortunately, the SDG-based paradigm has not been focused on the issue of excessive debt. The Islamic banking industry has also contributed to the accumulation of debt among communities, particularly through its consumer durable loan offerings. As for the Islamic investment management industry, most investments tend to be allocated to non-value-added sectors such as the real estate and financial sectors. These are important concerns for us, especially in our discussion on the transformation of Islamic finance from a debt-driven to an equity-driven financial system. I recognise the need to acknowledge the reality of the market system in which Islamic finance is operating, but what is the rationale for having Islamic finance? We have to focus on the purpose of Islamic finance.

We also have to engage with financial regulators. Conventional financial regulations such as Basel have been imposed on Islamic finance. Why do these regulations have jurisdiction over our financial systems? What is the social contract that has been agreed upon by the different parties involved in formulating the legal requirements? What are their sources of authority? We need to set the Islamic finance industry free from the restrictions imposed upon it by conventional financial regulations.

ESG is essential. But, we need to go beyond ESG and question the root cause of the problems that we are facing, which is capital domination. ESG and SDGs continue to perpetuate capital domination. Our objective is to go beyond ESG to establish a stakeholder-based paradigm. We need to change the rules of the game to change the game itself.

ABDULKADER THOMAS

We need to be disciplined in deciding what, when and how to include the products and tools from conventional finance. What are the complimentary objectives that we hope to achieve? How do these products benefit our communities? Over the years, Bank Negara Malaysia (BNM) and the SC have, in their own ways, developed powerful frameworks and tools to support the creation of new Islamic financial solutions. Very often, their initiatives have gone beyond the traditional space of financial regulatory bodies. These initiatives, which include VBI helped the Islamic finance industry in Malaysia to embrace ESG issues more widely.

MOHAMED IQBAL ASARIA

There are several key takeaways from the session. First, Tan Sri Abdul Wahid Omar mentioned that a lot of people are not in a position to take a risk with their small savings, and the current banking system is useful for them. However, we have recently observed the rise of neobanks, offering various investment solutions at low costs. As we know, banking regulations do not allow banks to make money from intermediation activities. Thus, banks make money by engaging in financial engineering, which has caused a lot of problems. Banks have been making money by providing unsustainable consumer loans. We have to include non-bank institutions to find solutions to the existing challenges that we are facing.

Second, regarding existing ESG approaches in conventional finance, we need a fundamental rethink. We cannot just adapt these approaches to make them Shariah compliant; otherwise, we risk making the same mistakes we have made before. We have an opportunity to inform ESG communities that excessive debt is bad.

Third, if our financial inclusion efforts are dependent on unsustainable consumer finance, then we risk creating more problems. We need to find ways to achieve financial inclusion without promoting consumerism.

Lastly, we need to learn from the studies that have looked into the causes of financial crises. Authors such as Lord Turner, Mervyn King and John Kay have reflected deeply on these issues. Lord Turner's book, *Between Debt and Devil* is very informative. In the book, he claims that most financial engineering practices are socially useless. Are our financial solutions socially beneficial? If our solutions are socially useless or harmful, we should discard them.

SESSION 1:
KEY TAKEAWAYS

Excessive debt and financial engineering were the root causes of the GFC and remain the key drivers of unsustainable financial practices.

The GFC has had a significant and long-lasting impact on the global economy, affecting economies, employment, and livelihoods. A study by the IMF found that in the year following the GFC, economic activity declined significantly.[1] The authors also suggest that the crisis has had a detrimental impact on fertility rates and net migration, as well as worsened income inequality.[2] In the few years after the crisis, between 47 and 84 million people fell into extreme poverty in 2009 and an additional 64 million people in 2010.[3] Scholars and practitioners have identified excessive leverage in public and private sectors as well as irresponsible financial engineering, accounting chicanery, and poor risk management practices as the main causes of the crisis.[4] These practices, however, remain the key drivers of unsustainable financial practices within the current financial system. Rising social inequality and vulnerability driven by the current financial system has led to the emergence of populism and extremism that has the potential to threaten and weaken the fabric of our society.

Embedding maqasid al-Shariah into Islamic finance will allow for the centring of the principles of justice and equity.

Orchestrating an overhaul of the financial system is not an easy task. It requires a fundamental rethink and renewal of the social contract underpinning our societal relations. This new social contract must be equitable and inclusive, rooted in the principles of fairness and justice, and driven by the goals of providing social security and shared risks and opportunities for all.

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1 *Lasting Effects: The Global Economic Recovery 10 Years After the Crisis*. Wenjie Chen, Mico Mrkaic, and Malhar Nabar, IMFBlog, 2018.

2 *Ibid.*

3 *The social impact of financial crises: evidence from the global financial crisis. World bank policy research working paper 6703*. Otker-Robe, Inci, and Anca Maria Podpiera, 2013.

4 *The origins of the financial crisis.* Baily, Martin Neil, Robert E. Litan, and Matthew S. Johnson, 2008.

The principles of *maqasid al-Shariah* offer a guiding compass in formulating a new social contract that can help us build a more equitable and resilient society. Embedding *maqasid al-Shariah* into Islamic finance will allow for the centring of the principles of justice and equity in Islamic financial institutions and practices. This requires us to not only define the principles of Islamic morality within the context of financial systems and relations but also operationalise these principles for Islamic financial institutions so that they can be translated into action. We should no longer limit Islamic finance to only Shariah-compliant transactions. Instead, we should strive to transform Islamic finance based on authentic understandings of Islamic principles and worldviews.

The recent innovation in the global Islamic finance industry has demonstrated various ways maqasid al-Shariah can be embedded into Islamic finance.

Innovation can play a critical role in transforming the global Islamic finance industry and demonstrating the ways in which *maqasid al-Shariah* can be embedded into Islamic financial practices. Recent innovations in the global Islamic finance industry such as the use of *zakat* as micro-*takaful* for micro-lending, the introduction of the VBI in Malaysia, the increase in green sukuk issuances, and the launch of FTSE4Good Bursa Malaysia Shariah Index, which combines Shariah and ESG investing principles, all serve as good examples of the potential for the financial system to serve the common good of society.

Moreover, the use of technology to expand access to financial products and democratise financial services has enabled the financial sector to serve the poor and rural communities, who previously might have been regarded as 'unbankable'. However, we have to make sure that financial innovation and financial technology are designed for the objectives of inclusion and empowerment, to allow every segment of society to build financial security and prosperity.

Regulatory authorities should formulate regulations and policies that allow Islamic finance to operate within its own value systems while remaining competitive.

Financial regulations are important to ensure the stability and integrity of the financial system. It is no surprise that the financial sector remains among the most highly regulated sectors. Financial regulations and policies shape the functioning of financial institutions and influence financial structures and outcomes. Unfortunately, the global Islamic finance industry has to operate under the conventional financial regulatory system. This, to a large extent, has restricted its ability to determine the regulatory and policy frameworks that are suitable for its purposes and to shape its governance and structures. The global Islamic finance industry should no longer be forced to compete with its conventional counterpart under the standards of regulation that favour conventional financial structures. Instead, regulatory authorities should formulate regulations and policies that take into account the unique features of Islamic finance to allow the industry to operate within its value system while remaining competitive. The global Islamic finance industry should be empowered to devise its governance and structures that are more aligned with *maqasid al-Shariah*.

The threat of climate and ecological crises requires Islamic finance to develop its own approaches to tackling these challenges.

As the world now faces the threat of climate and ecological crises that can have wide-ranging catastrophic impacts on ecosystems, economies, and human health and well-being, financial actors have been urged to play their role in tackling these challenges. These include moving capital away from dirty sectors to financing activities that contribute to deep decarbonisation, ecosystem regeneration, and societal adaptation. To respond to this call of action, Islamic finance should develop its sustainability approaches that are aligned with *maqasid al-Shariah* and rooted in Islamic worldviews. Rather than adopting ESG principles used in conventional finance, the global Islamic finance industry should reflect on the teachings of Islam regarding environmental sustainability and societal development and devise its approaches to address the environmental, social, and economic dimensions of sustainability.

SESSION 2

FINANCING INNOVATION IN SCIENCE AND TECHNOLOGY: THE ROLE OF ISLAMIC FINANCE

CHAIR

Dr Muhammad Meki

Sultan Hassanal Bolkiah Fellow in Islamic Finance, OCIS, and
Lecturer, Department of International Development, University of Oxford, UK

PRESENTER

Professor Shahid Jameel

Sultan Qaboos Fellow, OCIS, UK
Former Chief Executive Officer, Wellcome Trust DBT India Alliance

RESPONDENT 1

Professor Xiaolan Fu

Professor of Technology and International Development Department
Founding Director of the Technology and Management Centre for Development,
University of Oxford, UK

RESPONDENT 2

Ibrahim Khan

Co-founder, Islamic Finance Guru

QUESTIONS AND ANSWERS

KEY TAKEAWAYS

CHAIR’S OPENING REMARKS

Dr Muhammad Meki
Sultan Hassanal Bolkiah Fellow in Islamic Finance, OCIS, and Lecturer, Department of International Development, University of Oxford, UK

In this session, we will be discussing the COVID-19 pandemic as well as the challenges and opportunities this crisis brings. We will be focusing more on unpacking the issues from a science and technology (S&T) perspective. The pandemic has created many negative economic impacts and challenges, which we are still facing. However, it also has highlighted the potential for innovation in S&T to benefit millions of individuals and firms across the world, both in dealing directly with the effects of the crisis and in formulating a post-crisis global recovery.

Innovation in S&T is essential for economic development. There is a strong need to support innovators and entrepreneurs in accessing appropriate financing, human capital, and mentorship that can help them develop new business solutions to address current economic challenges. Innovation in S&T also has the potential to address significant income gaps between countries through productivity improvements, which could catalyse large leaps in development and further contribute to the SDGs.

Startups and small and medium-sized enterprises (SMEs) have a big role to play in innovation in S&T. Islamic finance has the potential to contribute to novel financing solutions for such entrepreneurs and SMEs. Recent developments in fintech have allowed for the creation of better risk-sharing instruments such as those used in blended finance and PPPs.

PRESENTER

Professor Shahid Jameel
Sultan Qaboos Fellow, OCIS, UK
Former Chief Executive Officer, Wellcome Trust
DBT India Alliance

My presentation will focus on using the COVID-19 pandemic as a case study to highlight issues in S&T and sustainable development. The SDGs represent 17 different aspirations that the world has agreed to fulfil by 2030. We seemed to be on track to fulfil these goals before the COVID-19 pandemic. The COVID-19 pandemic has resulted in a significant short-term impact on the SDGs. For some of the SDGs, we still do not understand how the COVID-19 pandemic has affected their attainment.

As of mid-September 2021, there were almost 230 million confirmed COVID-19 cases in the world. We do not have an accurate estimate of the number of actual infections. There were almost 4.7 million confirmed deaths. There were also unconfirmed deaths. In many developing countries, these numbers could be much higher. Almost 6 billion vaccine doses have been delivered. The development of COVID-19 vaccines provide a good example of the kind of innovation the COVID-19 pandemic has spurred. Vaccines usually take 10 to

15 years to be developed. However, several COVID-19 vaccines have taken less than 12 months to be developed. Nevertheless, there are still problems around access and equity. While most developed countries have vaccinated close to 80 per cent of their population, the vaccination rates in low- and middle-income countries are fairly low. For example, in the continent of Africa, only about 3 per cent of the population has received both doses of COVID-19 vaccines.

Access to vaccines is very important in our fight against the COVID-19 pandemic. There were three waves of COVID-19 infection in the UK, and we are right now in the third wave. While the daily number of deaths was correlated to the daily number of new cases in the first and the second wave, the daily number of deaths has been reduced very significantly relative to the daily number of new cases in the third wave. This difference can be explained by the vaccination rate. When the third wave of COVID-19 started, the UK had already vaccinated 60 per cent of its adult population. As of mid-September 2021, in total, 82 per cent of the United Kingdom population have received two doses of vaccines, and 90 per cent have received at least one dose of vaccine. Developed countries like the UK have made significant progress in their vaccination programmes. The results are fairly obvious: although COVID-19 infection rates in the third wave seem to be almost similar to those in the first and second wave, the mortality figures have declined. Vaccines help prevent mortality, but not infections.

As of mid-September 2021, OIC member countries have recorded around 34 million COVID-19 infections and roughly 600,000 deaths. Even in the third wave of COVID-19 in OIC member countries, the daily number of deaths continues to match the daily number of new cases. This is because OIC member countries have not vaccinated their population as much as developed countries. As a result, mortality rates continue to be high in these countries.

There are two key innovations in S&T that have taken place during the COVID-19 pandemic, namely genomic sequencing and vaccine development. Concerning genomic sequencing, the world has now obtained and documented genetic signatures of more than 3.6 million virus species that have infected people, allowing the tracking of variants and their spread to ensure that appropriate public health measures can be put in place. Concerning vaccine development, previous vaccine developments have been very lengthy – from the point of discovery of disease to the development of its vaccine. But COVID-19 vaccines have been developed very quickly. To me, the rapid development of COVID-19 vaccines represent a very significant innovation in S&T.

Regarding the emergence and spread of COVID-19, we know that the virus has evolved. Since its emergence in Wuhan, China, the virus has diversified significantly in the past two years. The Delta variant was non-existent when COVID-19 first emerged, but it only emerged in January 2021. Now, almost all COVID-19 viruses in the world are the Delta

“... we need to invest in our public healthcare system to overcome future challenges. Our present healthcare system is reactive. It has to become more proactive and provide quality basic healthcare services. We need to increase the capacity of our healthcare system to deal with emergencies.”

variant. Understanding of the emergence and spread of these viruses is only possible when we can sequence and track the viruses. Genome sequencing is a key innovation.

A vaccine is typically an agent that is similar to the disease-causing agent. It can sometimes be in the form of a killed agent or a weakened virus. A vaccine stimulates the body's immune system to produce both antibodies and killer cells that can recognise and destroy the disease-causing agent. More importantly, a vaccine also creates a memory in our body so that when we encounter the disease-causing agent after receiving the vaccine, this memory is recalled, and our immune system can very quickly get rid of it. A vaccine produces antibodies that interfere with the disease-causing virus that binds to the surface of a cell. This interference prevents the virus from entering the cell, which may cause infection. As of mid-September 2021, eight vaccines have been fully approved, and 13 have been authorised. There are over a hundred vaccine candidates that are still in clinical trials.

Pathogens emerge from the wild animal population – often through virus spillover from wild animals to domestic animals, and from domestic animals to humans. Occasionally, virus spillover occurs directly from wild animals to humans. Currently, only about 14 per cent of all human pathogens are viruses. However, if we consider emerging pathogens, almost 50 per cent of them are viruses, 75 per cent of which are zoonotic — they emerge from wild animals. The key predictor of virus spillover is the animal population density, and rodents and bats are the two leading causes of virus spillover. What increases virus spillover is the frequent interaction between wild animals and humans resulting from a variety of factors such as deforestation, climate change and changing eating habits.

Malaysia has the world's highest deforestation rate. It has been estimated that in the 20 years between 1983 and 2003, an estimated 5 million hectares of forest have been cleared in Malaysia. To put this in context, this area is about four times the size of Singapore. Deforestation brings wild animals closer to humans. Deforestation in Malaysia has been driven by the expansion of oil palm plantations – an industry that has brought significant foreign income to Malaysia. However, a United States Agency for International Development report has also suggested that the Malaysian government has to spend approximately US$5,000 to treat each malaria patient in the Borneo region, where most deforestation has taken place. Over time, the short-term income that deforestation may bring is offset by the number of diseases that it generates.

We must develop diagnostic tests and vaccines even before a pathogen emerges. This would be a phenomenal achievement, which the Global Virome Project is trying to achieve. The project aims to discover 500,000 viruses from animal species that have never infected humans. It has been estimated that the Global Virome Project will cost around US$5 billion. Before the COVID-19 pandemic, US$5 billion might seem like a very big number. However, the IMF estimates that the current losses due to the COVID-19 pandemic amount to US$28 trillion. The losses are about 5,000 times more than what we need to spend to support the Global Virome Project.

McKinsey & Company has suggested in its report that the COVID-19 pandemic is not the last. Therefore, we need to invest in our public healthcare system to overcome future challenges. Our present healthcare system is reactive. It has to become more proactive and provide quality basic healthcare services. We need to increase the capacity of our healthcare system to deal with emergencies. We are still underinvesting in research and development (R&D).

In summary, the COVID-19 pandemic has had some major short-term and possibly long-term impacts on the SDGs. Innovation in S&T has allowed us to test and track the spread of COVID-19 globally and to develop vaccines. For a sustainable future, we must understand how pathogens emerge, invest in research, and improve our models of healthcare delivery.

RESPONDENT 1

Professor Xiaolan Fu
Professor of Technology and International Development Department
Founding Director of the Technology and Management Centre for Development,
University of Oxford, UK

Innovation in S&T can play a very important role in our battle against the COVID-19 pandemic and helping people to cope with its impact and supporting a post-pandemic recovery. For example, digital technology has transformed the way we work, shop, receive education, and access healthcare services. We should aim to recover better – in a way that is green and sustainable, as well as inclusive. Digital technology can help us achieve this goal. S&T can play an important role in attaining the 17 SDGs and their 159 sub-goals. It has been suggested that innovation in S&T can contribute directly to nearly 70 of these sub-goals.

However, R&D in S&T is very risky and costly due to the high level of uncertainty and risk. We know that only around 15 per cent of research projects succeed, and from these successful projects, only half of them can be successfully commercialised. Continued large investment in S&T is important. During the innovation valley of death—the phase between research and successful innovation, startups and SMEs require investments to ensure they can be successful in commercialising their research outcomes.

We are now in the Fourth Industrial Revolution. Industrial Revolutions have only happened a few times in human history, and we are only at the start of this new Industrial Revolution. The Fourth Industrial Revolution is S&T-intensive, underpinned by new technologies such as digital technology, artificial intelligence, and cloud computing. These technologies are transforming organisational production, service delivery and our lives.

Innovation in S&T in the era of technological revolution brings both opportunities and challenges. By developing their capacity in S&T, developing countries, including Muslim-majority countries, can catch up to high-income countries, hence reducing the income gaps. Without innovative capabilities and technological infrastructure, these countries face the danger of being left behind.

To develop these capabilities and infrastructure, investment in R&D is important as it catalyses knowledge and technological transfer. Investment in startups and SMEs, in particular, can help them overcome the innovation death valley and scale up their technological solutions. Islamic finance can play a very important role in financing innovation in S&T. Islamic fintech through mobile banking and cloud financing, for example, can improve access to financing for startups and SMEs including financial services among marginalised communities. Fintech solutions need to be more inclusive and focus on supporting women and youth.

In conclusion, innovation in S&T can help developing countries seize the opportunities offered by the Fourth Industrial Revolution to progress along with the rest of the world.

RESPONDENT 2

Ibrahim Khan
Co-founder, Islamic Finance Guru

I will first talk about Islamic principles and their impact on S&T. Second, I will share about my field, venture capital (VC), and how it fits into the Islamic finance paradigm. More practically, I will discuss how we can form new ideas in the venture capital world and what are the gaps and potential solutions.

When we talk about Islamic finance, it is always important to remember that it is derived from and inspired by Islamic principles. S&T is at the heart of Shariah. It is at the heart of our religion, from the inculcation of the importance of education to the encouragement to reflect upon the signs of the Almighty all around us and use His blessings to make the world a better place. These principles are found throughout the Quran. God invites us to reflect upon His creation. All these principles suggest strongly to me that innovation in S&T is very much a part of our religion and a highly rewardable action. These principles are a great starting point for us.

Where should we be focusing our energies? How do our Islamic moral principles guide us? What are the opportunities? What is lacking in the world? Muslims should not be involved in gambling, arbitrage technologies, addictive technologies and frivolous technologies. However, it is worth noting that in their early days, platforms like Facebook and TikTok were considered frivolous. Currently, even non-fungible tokens and Bitcoin can look quite frivolous, but our views evolve. So, we need to consider what we regard as frivolous quite carefully.

In terms of developing impactful technologies, and there are few of them, Muslim-majority countries can learn from countries like South Korea, Taiwan, Israel, and the UK. It is critical to think about the underlying infrastructure that supports the investment ecosystem. We need to create an ecosystem that delivers innovation in high growth companies. South Korea and Taiwan made big bets on semiconductor technologies and silicon, which form the underlying hardware that makes possible a lot of modern-day technologies. Israel is very prominent in VC, and the country made big bets on cyber security and military technology. This is not a comment on the politics of these investments. However, from a VC perspective, Israel invested in these areas. The UK doubled down on fintech and has good technological foundations and experiences in this field. The key point that I am making is that there are innovation clusters that have developed.

Countries such as Malaysia, Indonesia, the Middle East and the Indian sub-continent need to ask themselves several key questions. What is the competitive advantage that we have? Which industry is experiencing a good growth trajectory? What are the enabling environments that we can provide to make innovation possible? If we have a computer chip shop, but there is no technology company around us, we are going to go bust. However, without a computer chip shop, there will be no technology companies. We need the underlying ecosystems, supported by PPPs. The partnerships can cover the costs of running the chip shop for the first few years until technology companies start to develop. Then, the virtuous cycle starts.

The areas that I think are interesting to explore, and I am not saying anything particularly incredible here, are climate change, quantum computing, agri-tech, biotech, health tech, edtech, and fintech. These areas have the potential to be game-changing. Blockchain technologies are also game-changing. These technologies can change the way the world looks. For example, Sequoia Capital, one of the best-known VC funds in the world, has created an economic value of approximately US$3.3 trillion, an amount more than the gross domestic product of the UK. Although the fund is only run by a group of several people over the last 40 years, it has created so much value. For most Muslim countries, the promises of getting the investment right and catching up with the rest of the world are exciting. These are the reasons why I am so passionate about VC.

For those unfamiliar with the differences between VC and private equity (PE), VC is the younger brother of PE. VC funds provide investment at the earlier stage, while PE funds will only invest in startups that have a business model. PE funds invest based on revenues and other underlying business metrics. VC funds invest in teams, ideas, and sometimes, early business tractions. I have been fortunate through the work we do at IFG.VC to be involved in around 30 deals in the last few years, totalling GBP10 million.

Through this experience, I have learned that, from an Islamic finance perspective, there is no serious issue with being active in VC. In VC, there is no debt. No one wants to give an early-stage company any debt. However, we need to pay attention to preference shares, although we can find a workaround using certain Islamic financial structures. We should also be wary of interest-bearing loans as these are the elements that can make a financial instrument not Shariah compliant. Overall, by and large, the market standard terms used by VC funds are usually Shariah compliant. This is positive for Muslim communities because we can get involved in VC without having to worry about whether it is *halal* or not.

How should we be involved in VC? The US, China, and Europe are controlling the lion's share of all the economic values created by VC in the world. These countries have an ecosystem of tech talent, money, experiences, and networks. All these elements are vital. If Islamic finance wants to succeed, we need to create a strong global network of talent – people who are willing to put their money where their mouth is and invest in VC funds to create companies, add value to the companies, and share their experiences with the companies. Careem in the Middle East and several large Indonesian companies have done fantastically well. Some of these companies are founded by Muslims. Many large companies in Malaysia have done well. What these successes create is a bank of potential future founders who have had experiences working in growth-focused startups. They know product-market fit and what success should look like. This knowledge is crucial. If we consider the founders of the most successful companies today, they were previously involved in early-stage startups. Elon Musk is one of the PayPal Mafia – he was involved in the early days of PayPal. The founders of Airbnb were involved in early-stage companies before founding Airbnb. Reid Hoffman, who founded LinkedIn, was a PayPal Mafia. The list goes on. We need both experience and networks.

> “If Islamic finance wants to succeed, we need to create a strong global network of talent – people who are willing to put their money where their mouth is and invest in VC funds to create companies, add value to the companies, and share their experiences with the companies”

To wrap up, success in VC is not just about the money. We should not think that having money is enough. Sometimes, our communities have a propensity to throw money at a problem and hope it goes away. This is not the right approach. Some of the largest VC funds have a large amount of Muslim-owned capital, but these funds have not necessarily been the most successful. One needs to be very careful about who one partners with. One needs to partner with credible, high-quality funds. They do not have to be Muslim-owned funds, but they need to be managed by high-quality people who are part of the network of talent and experience through which they can find early-stage success stories.

It is not only about the money but also the networks, talents and infrastructure. The public sector should work with the private sector to make a successful VC ecosystem possible. Each company's and each VC fund's success story has almost always had a significant amount of support from the government.

QUESTIONS AND ANSWERS

DR MUHAMMAD MEKI

Thank you very much, Ibrahim, for the interesting presentation. In Mr Ibrahim's presentation, he emphasised on the importance of building ecosystems and networks, which echoed what Professor Fu mentioned about the ways technology can help us build more extensive networks and communities. This emphasis on a conducive ecosystem is consistent with the efforts by the SC and other organisations to develop the foundations for Islamic finance for many years now. Platforms and forums such as this Roundtable allow people to have conversations about Islamic finance. These are examples of the ecosystems that we have in Islamic finance. We need better ecosystems for startups. In the Q&A session, we hope to hear more about some of the companies that you have invested in, some of the different VC strategies that you have seen, and some of the challenges they have had. Certainly, finance is not always the key issue, but it would be interesting to discuss it as well.

I did have a question for Professor Jameel. Professor Jameel mentioned that there are more than a hundred vaccine candidates, but only eight have been approved. What are the different models that the companies that have developed vaccines use? Some of us are familiar with the Oxford-AstraZeneca partnership as well as the models used by BioNTech and Moderna. How did they start and transition from academia to private companies? Is there a pattern in the organisational structures with which these companies were set up that supports innovation?

PROFESSOR SHAHID JAMEEL

First, more than a hundred vaccines are in advanced stages of clinical trials. This could mean that there are possibly another hundred or two hundred vaccines that are still in preclinical research. Not all these vaccines will be approved. However, surprisingly, for COVID-19 vaccines, almost every vaccine that has been clinically tested has worked, and these successes have helped the world fight the pandemic.

Regarding the business structures of these companies, we are all familiar with the Pfizer vaccine. It was not a Pfizer vaccine, as it was developed by BioNTech, a German company. The vaccine was not developed overnight. For both the BioNTech and Moderna vaccines, there was about a decade of work carried out that became the foundation of the vaccine development. Before the COVID-19 pandemic, both BioNTech and Moderna were developing cancer vaccines using the RNA platform. When COVID-19 began to spread worldwide, they realised there was an opportunity to use the same platform to develop COVID-19 vaccines. They tried it, and it worked.

BioNTech is a company founded by two Turkish immigrants to Germany. What Germany provided was an environment that Turkey could not. Muslim majority countries need to make their ecosystems conducive to retaining talent. Brain drain is a problem the world over, not just in Islamic countries. Pfizer provided capital support and networks to BioNTech. I believe that BioNTech also received money from the US and the European Union (EU) in the form of advanced orders – a form of de-risking mechanism. Countries prebooked COVID-19 vaccines even before they were approved. In the case of Moderna, the company's vaccine development was entirely funded by the US government. Moderna's vaccine development has created history. From a virus sequence to an approved vaccine, it only took 63 days. In around two months, the vaccine development progressed from a sequence to a vaccine. This was only possible because of the money provided by the US government.

I am familiar with another two examples from my home country, India. The Oxford-AstraZeneca vaccine was licensed to Serum Institute, a prominent Indian company in the vaccine sector. This company was established in the early 1960s, and they have been making vaccines for childhood immunisation the world over. The company has a lot of capital and resources. The next example is Covaxin, an inactivated vaccine. The development of Covaxin was funded by the Indian government. India has also now developed the world's first deoxyribonucleic acid (DNA) vaccine, whose development was also funded entirely by the government. De-risking is very important for vaccine development. De-risking mechanisms can be provided in the forms of government funding, VC funding, and advanced orders. For example, the COVAX programme provided US$270 million to Serum Institute to produce the Oxford-AstraZeneca vaccine. Serum Institute invested an additional US$300 million. These investments led to the development of the Covishield vaccine.

DR MOHAMMAD MEKI

Professor Jameel presented some of these existing models and highlighting the importance of de-risking. I would encourage some of our colleagues from Malaysia to discuss some of the points that Professor Jameel made regarding deforestation in Malaysia because we have had some discussions on environmental sustainability.

PROFESSOR XIAOLAN FU

My response will be on the question on how we can support innovation, especially from an investment perspective. Ibrahim Khan has already mentioned that VC plays a very important role in supporting innovation, especially the transfer of technology from research institutes to industries and startups, by providing loans or equity investments. One of the barriers to these investments is the process of valuing innovation. This process is part of risk management from an investor's perspective. How can I make sure that my investment is efficient? If the technology is worth US$1 million, I would not want to pay US$10 million for it. However, it is very difficult to come up with the right valuation. Many experienced VC investors may have good knowledge of the markets and new technological developments. However, such talent is very limited in the world. In Europe, only about 15 people have good knowledge of the fundamentals of 5G and 6G. Their time is also limited.

In one of the research projects that I have been doing, we are using big data, artificial intelligence, and machine learning as well as economic theory and econometric methods to develop conceptual and methodological frameworks for the valuation of inventions or patents. As a result, this process of valuing innovation can be done very quickly at a much lower cost. Of course, this tool aims to provide only a benchmark reference for investors. The algorithm is very objective because we used objective indicators to develop it. When we applied and tested the algorithm on a large data set, we found that the accuracy of its prediction was robust and high at 85 per cent. For younger startups, the accuracy of the prediction increased to 90 per cent. We valued a startup that was developing deep mind technology between US$590 million to US$650 million. Later, we learned that Google had acquired the company for US$640 million. The tool aims to make the valuation of technology more accessible, affordable, and objective to help not only investors but also startups and SMEs to get the valuation right, hence building trust for collaboration. It also can help investors and banks to invest in startups while maintaining good risk control.

DR MOHAMMAD MEKI

Yesterday, we discussed the limitations of a standard discounted cash flow model for valuation. Professor Fu shared an interesting point on a new valuation methodology that utilises machine learning and other technologies. The tool can enable people to consider alternative valuation methods, especially if they are investing in unconventional spaces with lots of uncertainty. The companies in these spaces may not have any forms of revenue traction.

TAN SRI ABDUL WAHID OMAR

Responding to the issue of oil palm plantations and deforestation, most of the plantation companies in Malaysia have already complied with the Malaysian Sustainable Palm Oil standard, and the majority of large companies have also complied with the requirements of the Roundtable for Sustainable Palm Oil (RSPO). The RSPO has representation from major palm oil buyers from Europe. We know that palm oil is the most productive vegetable oil. It is 10 times more productive than soybean. A palm tree sequesters a significant amount of carbon during its lifetime compared to other cash crops such as grapeseed or soybean. There are environmental and social issues associated with the industry, but most plantation companies are trying to address these issues.

Currently, around 55 per cent of Malaysia's landmass is still covered by forest, totalling around 18.2 million hectares. Forest provides Malaysia with a huge carbon sink. We intend to make sure that we protect as much of this landmass from further deforestation.

My question to Mr Ibrahim Khan – Out of the GBP10 million in various investments that you have made, besides *musyarakah* financing in the form of ordinary shares, what other financing instruments have you used in funding these ventures?

IBRAHIM KHAN

We very much prefer *musyarakah* financing approaches using equity-based investments. The reason for this choice is the nature of our funding sources. We receive capital from ordinary investors such as high-net-worth investors and institutions, and they all demand a return on their capital investments. Because of our funding sources, we need to make sure that our financing approaches are based on *musyarakah*. Our investment targets are typically impact-driven. About 70 to 80 per cent of our portfolio is invested in companies founded by Muslim founders. There are several excellent examples of early-stage ventures that we have invested in. The Muslim community will very shortly see Muslim-led companies being listed on Nasdaq, valued at several billion pounds. These companies have only been founded in the last 10 years.

One of these companies is Onfido, an ID checking company. A lot of digital companies such as Monzo, Revolut and Starling use Onfido's ID checking technology. It also has received several rounds of funding from Microsoft, Salesforce Ventures, TPG and various others. The founders of Onfido were students alongside me about 10 years ago at the University of Oxford. They founded the company from scratch and built it into what will now be an exciting exit. Crucially, they are now also investing back into the VC ecosystem, not just with their wealth but also with their expertise and networks. Through them, I have had the chance to meet a lot of other founders.

Professor Fu made an excellent comment on the issue of valuation. The way that VC investors think about valuation is very different from how real estate, PE investors, and investment bankers think about valuation. For us, what matters most is the opportunity cost of not being involved in a quality deal – one that could potentially become the next Facebook. This opportunity cost is worth an incredible amount of money. Facebook is now worth around US$1 trillion. A venture capital investor could miss investing in Facebook because he or she was too concerned about its valuation — that it might not be worth US$15 million, but instead US$12 million. The astronomical opportunity cost of missing the upside makes it not worth haggling over the price.

The way that VC investors think about valuation is different. What is the fundraising round – seed or Series A funding? If an investor will experience a 20 per cent dilution, for a company that is raising US$5 million, the valuation should be around US$20 million pre-money and US$25 million post-money, so that the investor will end up with a 20 per cent stake in the company. The amount that the investor ends up with is a product of market dynamics. Is it a hot deal? Is it a company that people want to invest in? Investors need to be flexible when they decide to invest in a company. For all people who are involved in VC investing or thinking about it: do not be too price sensitive. One will be constantly surprised at the opportunity cost that one could miss.

ABDULKADER THOMAS

Both the Moderna and Pfizer vaccines were developed using public investments from the United States Department of Defense and the Centers for Disease Control and Prevention. Now, these vaccines have turned into a source of private profits. There are two key issues here. First, the amount of public investment in vaccine development is huge – bigger than either Moderna or Pfizer would have been willing to invest on their own. Second, the way the US government has negotiated the vaccine purchases allows both Pfizer and Moderna to enjoy the profits without returning them to the actual funders — the taxpayers. I am curious about the panellists' opinions on these issues. What is the role of private finance in supporting these projects to justify the enormous returns when, in reality, there has been large-scale public finance behind them?

PROFESSOR XIAOLAN FU

I think this is a very important question – one that is highly political and widely debated. Together with three other colleagues from the University of Oxford and the International Science Council, I have also been thinking about this question. The developments of COVID-19 vaccines have benefitted greatly from public funding. Given that we are facing a global pandemic that affects the global community and that the major funding sources for vaccine developments have originated from the public, the US has now supported the appeal from India and South Africa to waive the intellectual property rights protection for vaccines. However, the issue we are facing now is even when the intellectual property rights protection is waived, it will not solve the current need to increase the production of vaccines globally. There is a lot of tacit knowledge required in the production of vaccines. In addition, there is a lot of managerial knowledge required in managing the global supply chains of vaccines.

There are different ways to return the benefits of public finance to the public, such as waiving intellectual property rights, removing trade barriers, and introducing compulsory licensing. However, these solutions can only help countries with good production capacity. The problem remains that the tacit and managerial knowledge in global supply chains is still held by large private companies.

We suggest the need for a PPP in the form of an international joint venture between private companies and governments to set up global hubs for vaccine production. Both intellectual property rights and tacit knowledge should come from private companies. They should also contribute the investments needed to set up these hubs. Because this is a global pandemic, countries in the Global North and the Global South as well as international organisations such as the World Bank, the IMF, the World Health Organization, COVID-19 Vaccines Global Access, and others should provide joint funding to set up these hubs and facilitate co-ordination and standard assurance. We need to ensure that there are several regional hubs in Latin America, South Asia, and Africa. This is one of our proposals that we hope will accelerate the production of vaccines globally. It will also help developing countries develop technological and production capacities for vaccine production.

IBRAHIM KHAN

I was previously a fund formation lawyer, and I used to help investors and managers form PE and VC funds. I did a lot of work with the Commonwealth

Development Corporation, the International Finance Corporation, the IsDB, and other international developmental corporations. The underlying approach that these organisations adopt is to invest in private VC funds and PE funds and influence the investment strategies of these funds to make sure that they align their strategies with the SDGs or that they invest only in a particular region such as Africa. For Islamic finance, there are two routes that we can explore. First, we can partner with all the leading international development organisations and encourage them to invest in Muslim-majority countries, which a lot of them have been investing in already. Second, we need to encourage Muslim sovereign wealth funds to invest in impact-driven PE and VC funds, which I find surprisingly rare. Muslim sovereign wealth funds have been investing in purely commercial PE funds as opposed to impact-focused funds. These are the two levers that we can use to support impact-driven projects.

DR MOHAMMAD MEKI

The question from Dr Basil Mustafa: What are the prerequisites for developing nations to mobilise fintech solutions for social and financial development? Some prerequisites that come to my mind are infrastructure and regulatory requirements.

PROFESSOR XIAOLAN FU

This is a very important question because, without the prerequisites, the benefits from the innovation in S&T will not be realised. We need these prerequisites. In addition to what Dr Muhammad Meki mentioned, digital infrastructure and human capital are fundamental. We need to develop the necessary skills and competencies in the community. We must include these skills in school and university curricula. We need life-long training and on-the-job training. We need the competencies in areas such as cloud computing and big data — the ability to collect, analyse and transform the findings from data into competent policies. These are important technical skills. We should develop soft skills through entrepreneurial training. We have new opportunities emerging through the digital economy, capable of creating more entrepreneurs and helping them grow through various digital platforms. Lastly, we need regulatory capabilities and improvement in governance, both of which are necessary to build trust and protect consumers. Only when trust has been built will people start supporting the digital economy.

DR MOHAMMAD MEKI

Some of us who work in developing countries have anecdotal evidence that people in general lack trust in certain institutions that have failed them historically. Trust is very important.

PROFESSOR DR ENGKU RABIAH ADAWIAH

Member of the Shariah Advisory Council, SC

My question is related to the need to link innovation in S&T to the general theme of our Roundtable, which is the transformation of Islamic finance. How can we connect innovation in S&T to the social agenda on the ground? As we speak, a lot of people are facing difficulties in accessing healthcare and other necessities. When I consider some of the most innovative scientific and technological products, they tend to be very costly. Many from the lower-income segments of society will not have access to these products. How can we justify these exorbitant prices? Has the pricing of the products been arbitrary? Is the pricing of these products determined by how they have been financed? Government subsidies are often necessary to help people access these basic services, which does not seem consistent with *maqasid al-Shariah.* It is good to invest in S&T, but we need to consider whether these investments will have a good impact on people.

DR MOHAMMAD MEKI

This question touches on the need to provide access to public facilities, such as good mobile banking services. In my work as a development economist, I observed that many countries are implementing social protection programmes. For example, India and Pakistan have fairly large cash transfer programmes. These programmes can leverage some of the technologies that Ibrahim Khan has discussed to improve access.

PROFESSOR SHAHID JAMEEL

The developments of diagnostic technologies or vaccines tend to happen in response to an emergency such as a health situation. But, it is also important for us to consider the value of good public healthcare on the ground, and this is where investments have to be made. Good investments in public healthcare can help mitigate some of the issues that may arise when a health situation such as an outbreak, an epidemic, or a pandemic emerges. It is not an either-or situation. It is very important to understand that primary importance has to be given to upgrading our models of public healthcare on the ground. Other areas come later in the form of a response to a health situation.

DR MOHAMMAD MEKI

This also touches on the earlier point that Professor Jameel made about deforestation. We could focus on maximising short-term profits. However, we then would have to pay the cost of high malaria treatments. A short-term view often has a negative impact later. These trade-offs are important.

PROFESSOR SHAHID JAMEEL

There is no free lunch.

DR MOHAMMAD MEKI

Exactly. That is why it is important to have a more holistic perspective on healthcare, primarily public healthcare. Public healthcare is very important and requires more than just private actors.

MOHAMED IQBAL ASARIA

I am very excited by what Professor Jameel has said, but I want to further extend the argument. For those of you who have read Mariana Mazzucato's book, *Entrepreneurial State*, she demonstrates that a lot of the technologies behind mobile phones and the internet were developed by state funding for space programmes. The question she raises is: If public funding was used to develop these basic technologies, how much of the gain from them should be returned to the public? I see the same parallel in the discussion we are having. If vaccines were developed using public funding, how much of the gain should be returned to the public? How much should be kept by the people who developed the vaccines? A balance needs to be struck, but it will not be achieved if we leave the market to itself because the market will monopolise and shift the losses to the state. Unless we strike a balance between the two, corporations will begin to minimise their tax payments by lobbying the government to reduce taxes. As a result, none of the gains will return to the people, and we will no longer achieve the purpose of *maqasid al-Shariah* to create an equitable society.

We also need robust interventions by the World Trade Organization to reform the *Agreement on Trade-Related Aspects of Intellectual Property Rights* (TRIPS), the *Agreement on Trade-Related Investment Measures* (TRIMS), and other international agreements. These are the global parameters that have helped the powerful to accumulate wealth. As we can see in the vaccine nationalism debates, until we relax the regulations around patents, it will continue to be a long-standing struggle for developing countries to develop their local capacities. Mandates allowing parallel manufacture or compulsory manufacture can potentially offer a solution.

A whole new field of innovation is opening up. We have seen an indiscriminate use of data for private gain by corporations, which will again result in further inequality. The richest sectors have been the same sectors, and other sectors which were doing reasonably well have been impoverished. We need to incorporate *maqasid al-Shariah* in our discussion on innovation.

DR MOHAMMAD MEKI

A question to Professor Asaria, as he has linked our discussions back to the earlier conversations around *maqasid al-Shariah.* How do we share the benefits of the innovation in S&T with the whole society rather than just a few people?

PROFESSOR XIAOLAN FU

I agree that the inventions supported by public funding should benefit the public. The ways to balance private and public interests are a science. On the one hand, it is crucial to maintain the incentives for innovation. At the same time, from a societal perspective, the benefits from innovation need to be distributed fairly and equitably. This is also related to the earlier comment about the way innovation in S&T benefits people on the ground.

I have two recommendations. The first is regulation. The governance and management of international property rights protection need reform. We need to distinguish between the technologies and inventions that affect people's livelihood, such as health, food and water, and other types of technologies and inventions. For the technologies and inventions that affect people's livelihood, we need to encourage technological diffusion. We also need to distinguish the types of policies that we use in developed countries and developing countries, especially low-income countries. How can we support developing countries using differentiated international policies? How can we support the diffusion of innovation to low-income countries? Reforms of international property rights protection at the global level are a very important and urgent issue.

Regarding how S&T can benefit people on the ground, I want to share a research project that I am currently working on in Bangladesh – a country with a sizeable Muslim community. Through this project, we developed a mobile application, and we rolled out the application to local communities during the pandemic. We now have the data from its usage. People have been using mobile application not only to connect with others but also to get health information and other public information. They have also used the application to generate income by doing business online. Through the mobile application, people have shared their knowledge, skills, and life stories. Although we found that people's incomes were significantly reduced during the pandemic, those who used the mobile application had a smaller income reduction and lower unemployment. They were also much more informed on public health, the COVID-19 situation in the country, and the government policies. Moreover, they were active in finding new ways to diversify their income sources, and they were able to manage their time flexibly to obtain additional income.

This is a good example of how S&T can reach people on the ground. Most of the users were women, youth, and members of rural communities. Certainly, they were not among the poorest because they still had to own a phone at least to participate in the project. However, they were part of the marginalised segments of society. We need to encourage innovation and technological progress that benefit people on the ground and the marginalised segments of society. We need policy interventions to encourage researchers and innovators to develop new research and create innovation for these higher purposes rather than profits for investors.

DR MOHAMMAD MEKI

Based on Professor Fu's presentation, and this comes back to your earlier point about how technology can help mitigate the impact of the crisis. You also made an excellent point about how some technology benefits the poor, but there are still ultra-poor communities that may need extra support in the forms of financial education and training.

NASH JAFFER

Ibrahim Khan discussed the VC industry and indicated that OIC member countries have not developed their VC capacities within their own respective countries. He gave very good examples of other countries that have been very successful. What can be done to influence OIC member countries to focus on this area and develop wonderful startups in their respective countries?

IBRAHIM KHAN

If we consider some examples from other countries, they were very active in backing VC funds. What the public sector is good at is having the intention to develop VC ecosystems, and it has money. What it is not good at is picking the winners. This is an area where the private sector can provide its support and expertise. Private VC funds have received a huge amount of funding from pension funds, and in the US, from charity, development finance institutions, and university endowments. Governments can emulate this investment strategy. The Abu Dhabi government has been particularly forward-looking in this area and has changed its regulations to encourage VC funds to invest in the country. VC funds with significant experience receive seed funding to invest in the country.

We also need to think about the ground-zero infrastructural technologies that act as enablers for a particular industry that we are planning on developing. Governments need to support the companies that are developing these infrastructural technologies. In the case of fintech, it could be regulations, such as improving the speed at which a fintech can get to market. It is an appealing offer if we can tell fintech founders that we can support their startups to get to market in three to four months, that our regulations are completely set up to do so, and that we have great connections with the wider financial ecosystems and large companies to support them. For different industries, such as quantum computing, there will be different infrastructural requirements as well as complementary industries. In Central Asia and the Middle East, energy prices are relatively low because these countries are energy producers. These countries have large data power that underpins blockchain technology, artificial intelligence, and machine learning. Countries in these regions have a competitive advantage in these areas. Countries need to think about what they are particularly good at and allocate resources to develop their competitive advantage.

Lastly, it is important to move fast and be willing to make mistakes. We need to be willing to risk having eggs on our faces. We may have eggs on our faces in the beginning, but it is only after this experience that we can start making omelettes.

SESSION 2:
KEY TAKEAWAYS

Innovation has the potential to catalyse sustainable development, enhance societal resilience, and boost shared prosperity.

Innovation is considered essential for economic and societal improvement. It allows organisations to transform ideas into improved products and better processes and to drive technological and institutional change. Innovation has the potential to improve productivity, enhance societal resilience and boost shared prosperity. While the COVID-19 pandemic has had many adverse economic and societal impacts, it has also inspired and accelerated various innovation projects around the world, from genomic sequencing and vaccine development to the adoption of digital technology among businesses. Real-time genomic sequencing, for example, has allowed for the identification and understanding of the causative agent of COVID-19, the dynamics of its outbreak, the design of its vaccines, and the monitoring and verification of the vaccines' efficacy.[1] Innovation in S&T, in particular, has been recognised as a catalyst for productivity improvement, which is necessary for economic development and for developing solutions to environmental and societal challenges.

Innovation is risky and costly, and without appropriate support, many innovation projects end in failure.

Innovation, however, is costly and risky. Many R&D and innovation projects fail, and even among the projects that succeed, few get commercialised. It is very common for many prototypes of solutions generated during the R&D phase to remain in the prototype stage and never get commercialised. This gap between research and successful commercialisation is often called the innovation valley of death. Indeed, the pursuit of innovation is riddled with technical and managerial complexity, talent challenges, and time and resource constraints. Innovation projects inherently carry risks, from the market and regulatory risks to operational and reputational risks, though the level of risk of each project and its potential repercussions may differ. This information, however, is often not well understood at the start of an innovation project which further discourages investment. Therefore, infrastructure for innovation – an ecosystem of organisational and institutional support designed to catalyse the pursuit of innovation is necessary to promote and support innovation. A thriving innovation ecosystem connects innovation projects with talent, capital, and supporting infrastructure, and offers systematic processes for turning innovative ideas into successful products and services.

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1 *Genomic sequencing of SARS-CoV-2: A guide to implementation for maximum impact on public health*. World Health Organization, 2021.

Islamic finance can play a critical role in supporting innovation through innovative financial contracts and fintech.

While access to financial capital is not the only support that innovation projects need to succeed, lack of access to capital remains one of the key barriers to successful innovation. Financial resources allow new research to be developed, testing new ideas, piloting new prototypes, and launching new products and services. Islamic finance, with its various product and service offerings, can play a critical role in supporting innovation. The principle of profit- and risk-sharing that is central to Islamic finance encourages innovation by expanding participation in innovative projects, encouraging collaboration between financiers and innovators, and incentivising the sharing of the burden of potential losses and the fruits of potential successes.[2]

Moreover, recent innovations in Islamic finance have led to the introduction of new financial products such as green sukuk, micro-*takaful*, and Shariah-compliant ESG funds. These financial products have been used to support innovative green infrastructure projects, protect micro-enterprises by reducing their risk exposure, and channel capital towards sustainable activities. Islamic financial institutions have also embraced the use of technology in serving their customers. The rise of fintech in Islamic finance will further democratise access to Islamic financial products and services to previously underserved communities, as well as enhance the ability of Islamic financial institutions to support innovation projects of different sizes, nature, and durations.

Purposeful innovation is necessary to ensure that innovation projects aim for the common good of society and benefit the public at large.

Despite the common perception that successful innovation projects are primarily driven by the private sector, a significant number of these projects are supported by the public sector through various policy instruments. These include PPPs, intellectual property rights, tax benefits and exemptions, public funding, and public procurement. In her book, *The Entrepreneurial State*, Mariana Mazzucato argues that the public sector has not only passively regulated markets and fixed market failures but has also actively participated in creating an ecosystem for innovation, providing support and funding for innovation projects and making high-risk investments. Unfortunately, many innovation projects produce breakthrough products and services that are too expensive, making them inaccessible to the general public. Even worse, some companies who owe much of their success to public investment seek to reduce their tax payments and argue for stronger intellectual property protection. Therefore, purposeful innovation – innovation that aims for the common good of society and is driven by a desire to provide solutions to the biggest societal challenges – is necessary to ensure that innovation projects benefit the public at large, especially when they are funded and supported by the public sector.

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[2] *Risk sharing and shared prosperity in Islamic finance. Islamic Economic Studies 130.2223*, Maghrebi, Nabil, and Abbas Mirakhor, 1-31, 2015.

SESSION 3

RESEARCH PAPER PRESENTATION

PRESENTER 1

Dr Lee Siew Peng

SC-OCIS Scholar in Residence 2018/19

PRESENTER 2

Dr Hashim Jusoh

SC-OCIS Scholar in Residence 2018/19

PRESENTER 3

Dr Abdelkader El Alaoui

Associate Professor of Finance, Rabat Business School
International University of Rabat Morocco

PRESENTER 1

Dr Lee Siew Peng
SC-OCIS Scholar in Residence 2018/19

During my visit to the OCIS, I conducted two research studies on the impact of ESG and Shariah screening on corporate financial performance. Previous studies on this topic have primarily focused on CSR, with only minor reference to ESG. There have been many studies investigating the impact of CSR on financial performance. Overall, these studies discuss two competing theories, stakeholder theory and agency theory, which explain the relationship between CSR and financial performance. According to the stakeholder theory, CSR activities can have a positive impact on corporate financial performance because good management can improve the relationship among various stakeholder groups, which will lead to better financial performance. The agency theory suggests that CSR activities are just a waste of corporate resources as they involve costs. According to the agency theory, a company should not spend corporate resources on CSR activities. In general, however, most studies on the relationship between CSR and financial performance have found that spending money on CSR activities can improve financial performance. Overall, the evidence seems to support the stakeholder theory.

Through my research, I would like to understand the impact of ESG screening on financial performance among Shariah-compliant companies. ESG screening includes considerations of ESG criteria in investment decisions, intending to promote sustainable business practices. ESG and Shariah screening methodologies are different. ESG screening is a form of positive screening based on a company's involvement in ethical initiatives. Shariah screening, however, does not prioritise investments in the environment or communities. Although some scholars consider Islamic finance to be a form of ethical finance similar to ESG, the two screening methodologies still differ. Furthermore, even though CSR is a practice theoretically embedded in Islam, material differences between ESG and Shariah screening methodologies exist. Shariah screening is faith-based and aims to exclusively discourage investments in companies with practices that contradict Shariah.

The combined impact of ESG and Shariah screening on corporate financial performance is largely unknown because most past studies have only looked into how companies conduct ESG activities and the impact of these activities on their financial performance. I have not found any studies that focus on ESG activities among Shariah-compliant companies. Hence, my research focuses on the combined impact of ESG and Shariah screening on corporate financial performance.

The stakeholder theory and the agency theory postulate different impacts of CSR activities on financial performance, which I would like to understand better through my study. During my visit to the OCIS, I conducted two research studies, both of which used empirical methods to explore my research questions. The first research study was an empirical analysis of the financial performance of Shariah-compliant companies included in the MSCI World Islamic Index. The results of my first analysis suggest that ESG activities have a positive impact on corporate financial performance. Firms with active ESG activities have better financial performance. The results are robust across all sub-components of ESG. The second research study was an empirical analysis of the financial performance of Shariah-compliant companies listed in Malaysia that engaged in ESG activities. The results of my

"The first research study was an empirical analysis of the financial performance of Shariah-compliant companies included in the MSCI World Islamic Index. The results of my first analysis suggest that ESG activities have a positive impact on corporate financial performance. Firms with active ESG activities have better financial performance."

second analysis are consistent with the results of my first analysis, which suggest that companies who engage with environmental and social issues have better financial performance. Overall, the results of my studies on the combined impact of ESG and Shariah screening on corporate financial performance support the stakeholder theory.

In conclusion, ESG practices can enhance a company's financial performance. There is no detrimental impact or penalty for allocating corporate resources to ESG activities. The findings provide evidence that combining ESG and Shariah screening does not negatively impact corporate financial performance. Shariah-compliant firms that engaged in ESG activities were found to perform better than those that did not engage in ESG activities. These findings are important given the growth of Islamic finance and responsible finance.

One limitation of my study is how Shariah compliance is measured. A Shariah-compliant status is a binary variable based on Shariah screening requirements. It is not possible to measure the levels of Shariah compliance of a company. Relevant policymakers should find ways to make Shariah screening more meaningful.

PRESENTER 2

Dr Hashim Jusoh
SC-OCIS Scholar in Residence 2018/19

The Malaysian derivatives and capital markets have done quite well in the past few years, as evidenced by many findings from past studies. The introduction of a derivatives market in Malaysia has not increased the volatility of the stock market. As the derivatives market becomes more efficient, it provides a good platform for fund managers to manage their portfolio risks through hedging instruments. The findings from past studies also indicate that no arbitrage activity is possible in the derivatives market because of the price efficiency of derivative instruments.

There are two issues arising from the results of past studies. The first issue is that the Malaysian Islamic funds cannot use conventional futures to hedge their positions. This contributes to the second issue of whether there is any benefit from the issuance of Shariah-compliant equity futures. Islamic fund managers are effectively handicapped because they cannot use any conventional futures to manage their portfolio risks. Our study attempted to uncover some key findings related to these questions.

The objective of our study was to examine the multi-horizon nature of the correlation, hedging effectiveness, and inter-temporal causality between conventional stock index futures and conventional stock indices, and between conventional stock index futures and Shariah-compliant stock indices. Apart from using index futures, we also studied these relationships using the Crude Palm Oil Futures (FCPO). Although the FCPO is not an equity futures contract, it can be considered a Shariah-compliant futures contract. We studied the relationships between the FCPO and conventional stock indices as well as Shariah-compliant stock indices.

We used two different datasets. The first was the daily index future and stock index data from Thomson Reuters Eikon, and the second was high-frequency index future and stock index data from Telequote. Both Thomson Reuters Eikon and Telequote are the authorised information vendors of Bursa Malaysia. For our research methodology, we adopted wavelets techniques.

PRESENTER 3

Dr Abdelkader El Alaoui
Associate Professor of Finance
Rabat Business School
International University of Rabat Morocco

The first analysis we conducted was a wavelet correlation analysis, focusing on the correlation between the FTSE Bursa Malaysia KLCI Futures (FKLI) and the stock indices. In the short term, the correlation was small but shows growth after two hours. For the analysis focusing on the correlation between the FCPO and the stock indices, the correlation was very small – close to zero – in the short term. In the longer term, after two hours, the correlation became negative. A negative correlation would create an opportunity for diversification.

The second analysis was a wavelet hedging effectiveness analysis, focusing on the relationships between the FKLI and the stock indices, and between the FCPO and the stock indices. The findings suggested that the FKLI is a good hedge for all stock indices, but the FCPO is not. The findings from the second analysis confirmed the results of our first analysis.

The third analysis was a wavelet analysis, focusing on inter-temporal causality. The findings demonstrated that the FKLI was highly correlated with the stock indices. Most of the time, they moved together. However, the FCPO was not well correlated with the stock indices, but the correlation improved after an hour and a half. Smart indices have the potential to benefit from this information.

To conclude, derivative instruments and stock indices seem to follow the same behaviours. In addition, the correlations between derivative and equity markets vary over investment horizons but remain very high, especially in the long run. The instruments' market behaviours are found to be similar regardless of whether they are conventional or Shariah compliant. The findings suggested that futures can be a good instrument for portfolio hedging. The derivatives and the stock markets in Malaysia showed strong dynamics in co-movements and hedging effectiveness. The inter-temporal causality between the two markets varied across frequencies and time scales. This phenomenon has some policy implications for maintaining the stability of the Malaysian capital markets.

Our findings also suggested that the FCPO may not be a good hedging instrument for investors but were more suitable for portfolio diversification, especially in the long run. The findings also demonstrated that investors with longer investment horizons in Malaysia were more likely to follow fundamentals compared to speculators with shorter investment horizons, as shown in the relationships between the futures and stock markets which became stronger on longer time scales. Therefore, Islamic fund managers can benefit from derivatives instruments, which allow them to hedge their portfolios. The results suggested the need to devise a new index futures contract using a Shariah-compliant index as its underlying instrument to allow Islamic investors to use it as a hedging instrument.

> “The instruments' market behaviours are found to be similar regardless of whether they are conventional or Shariah compliant. The findings suggested that futures can be a good instrument for portfolio hedging. The derivatives and the stock markets in Malaysia showed strong dynamics in co-movements and hedging effectiveness.”

However, the process of developing new stock market index futures contracts must be handled with care. The findings from the study can be considered the first step towards the development of new Islamic stock index futures contracts. Further research, both empirical and qualitative, is needed. Innovation and research are two important ingredients for Malaysia to become the hub of sustainable finance initiatives.

SESSION 4

CONCLUSIONS AND RECOMMENDATIONS

CHAIR

Dr Basil Mustafa

Former Senior Bursar, Oxford Centre for Islamic Studies, UK

RAPPORTEUR 1

Siti Rosina Attaullah

Manager, Bank Negara Malaysia

RAPPORTEUR 2

Shabnam Mokhtar

SC-OCIS Scholar in Residence 2021/22

CONCLUDING REMARKS

Sharifatul Hanizah Said Ali

Executive Director, Islamic Capital Market Development
Securities Commission Malaysia

CHAIR

Dr Basil Mustafa
Former Senior Bursar
Oxford Centre For Islamic Studies, UK

We have had two main sessions of presentations. The first session was 'Building a Shared Future Through Islamic Finance', which will be summarised by Siti Rosina Attaullah from BNM. The second session was 'Financing Innovation in Science and Technology: The Role of Islamic Finance', for which the report will be presented by Shabnam Mokhtar, the current SC-OCIS Scholar in Residence.

RAPPORTEUR 1

Siti Rosina Attaullah
Manager, Islamic Banking and Takaful Department
Bank Negara Malaysia

In Session 1, 'Building a Shared Future Through Islamic Finance', the presenter, respondents, and participants provided insightful perspectives on several key questions prompted by Mr Nash Jaffer, chair of the session. I would like to share the key takeaways, focusing on four key perspectives: first, the suggestions to fundamentally rethink the transformation of Islamic finance based on *maqasid al-Shariah*; second, key reality checks and challenges; third, calls to action; and fourth, the key ideas to be explored.

Mr Nash Jaffer opened the session by highlighting the need to investigate the purposes, values, and virtues of Islamic finance, particularly around equity and inclusion. This is, in part, to avoid shoehorning Islamic finance into existing conventional financial mechanisms. Building on this idea, he also emphasised the need to explore a new social contract that can provide a better foundation for the revival of Islamic finance to develop a more resilient society.

Mohamed Iqbal Asaria, the presenter, in his presentation, 'The Structure for the Framework of Islamic Finance and the New Social Contract – Embracing New Dimension for Islamic Finance', observed that reverse-engineering practices in Islamic finance in the past have resulted in a debt-driven Islamic financial system. Emerging narratives about the roles of faith and morality in conventional finance provide an opportunity for Islamic finance to play a greater role in embedding Islamic faith and morality in financial systems and practices.

He also questioned whether fintech has been utilised to support those who are financially excluded or has only been focusing on benefitting those who are already financially included. He suggested using technology more inclusively as the way forward.

Mohamed Iqbal Asaria acknowledged the progress that Islamic finance industry has witnessed, such as the introduction of VBI in Malaysia, the issuances of green and SRI sukuk in Malaysia and Indonesia, and the development of micro-*takaful* and microfinance industries. However, despite this progress, much more needs to be done to ensure that *maqasid al-Shariah* will become the focus of Islamic finance. He emphasised the need to move away from excessive debt and reverse financial engineering. Instead, he encouraged Islamic financial practitioners to leverage the critical roles of the IsDB, formulate targets based on *maqasid al-Shariah*, consider the parameters of the Islamicity Indices, especially regarding the human development components, and explore alternatives to the current discounted cash-flow valuation methodology.

To transform Islamic finance, Professor Dr Mehmet Asutay, the first respondent, suggested that we need to look into alternative definitions of human beings and understand the consequences of human behaviours. In addition, we need to look beyond financial transactions and focus on their impact. He also emphasised that structural problems require structural solutions, and that financial inclusion has to be linked with individual empowerment. The Islamic financial industry must explore the virtues of the Islamic economy (*iqtisad*), which aims to maintain the balance between economic, environmental, and social developments (*mizan*), through justice (*adl*) and kindness (*ihsan*). He also called for regulators to consider differentiated regulatory paradigms to allow for the transformation of Islamic finance.

The second respondent, Mr Abdelkader Thomas, did not agree that the Islamic finance industry has only been engaging in box-ticking exercises. He also rejected the views that claim that Islamic finance has failed. Instead, he argued that the Islamic finance industry has enabled access to Shariah-compliant financial services to Muslims around the world. As the industry continues to progress, the focus should be directed toward what more needs to be done moving forward. He also suggested that the notion of the preservation of wealth in *maqasid al-Shariah* is not about preserving individual wealth but preserving the wealth granted to us by Allah. Hence, we must ensure that the wealth is used in the best way possible, consistent with Allah's commands. Although he expressed that practices such as VBI and SRI must continue, he also encouraged the Islamic finance industry to devise its own ESG approaches rather than restricting them to existing frameworks.

In the question-and-answer session, Tan Sri Abdul Wahid Omar echoed Mr Abdelkader's views that the progress of the Islamic finance industry should not be discredited. The pragmatic approaches taken by Islamic finance practitioners have enabled access to Shariah-compliant financial services. As a result, the Islamic finance industry is currently evolving and gaining a greater market share. Moving forward, it is critical to ensure the Islamic finance industry can generate more impact. This will require the industry to explore other segments beyond the banking sector, such as the fund management sector, leveraging the growth of ESG.

According to Mr Rafe Haneef, the next evolution of Islamic finance should not be only about shifting Islamic finance to focus more on profit- or risk-sharing but also about reforming conventional finance beyond its excessive reliance on debt, which has resulted in greater inequality.

RAPPORTEUR 2

Shabnam Mokhtar
SC-OCIS Scholar in Residence 2021/22

Professor Shahid Jameel summarised how the COVID-19 pandemic has had a short-term negative impact on the achievement of the SDGs. Nevertheless, he also demonstrated that the pandemic has also had some positive effects. For example, vaccine development usually takes around 10 to 15 years; but several COVID-19 vaccines were developed within 12 months. This is a clear example of positive development in response to the COVID-19 pandemic. However, the main issue now revolves around the accessibility and equality of vaccine distribution between developing countries and developed countries. Professor Jameel provided two contrasting examples. In the UK, during the first and second waves of the COVID-19 pandemic, the rates of new confirmed cases and deaths matched. But during the third wave, the death rate was significantly lower than the number of new cases due to wide access to several COVID-19 vaccines. In many OIC countries, the rates of new confirmed cases and deaths remain similar because COVID-19 vaccines have not been fully distributed to the population.

Professor Jameel discussed two innovations that have been taking place in the vaccine space. The first is genomic sequencing, which allows for tracking different COVID-19 variants and where they spread. The second is vaccine development, especially the time it takes to develop a vaccine. He claimed that 75 per cent of emerging viruses are from wild animals, and the spread of these viruses is often connected to environmental issues. For example, deforestation is one of the causes of unhindered interactions between wild animals and human beings, leading to the spread of viruses from wild animals to human beings. In Malaysia, for example, although the country generates income from palm oil plantations, this income could be partially offset by the higher healthcare spending, resulting from the diseases caused by deforestation associated with palm oil plantations.

Regarding the issue of financing innovation, Professor Jameel discussed the example of the Global Virome Project, which aim is to detect pathogens before they emerge. The research needed to discover around 500,000 viruses from animals before they emerge requires an estimated investment of around US$5 billion. This amount of investment sounds huge. However, the losses resulting from the spread of the COVID-19 virus have been estimated to be around US$28 trillion. From this perspective, spending US$5 billion on research is very small relative to the losses we have suffered from the COVID-19 pandemic. He emphasised the need to improve public healthcare to provide basic health services and to cope with future pandemics.

Professor Xiaolan Fu discussed how S&T could and has been helping people cope with the COVID-19 pandemic and devise solutions for the post-pandemic recovery. She emphasised that innovation in S&T can provide various opportunities and challenges. Developing domestic capacity for innovation in S&T can provide developing countries catch up to developed countries and reduce the income gaps between them. But, if developing countries do not invest in this capacity, they will continue falling behind.

Regarding the issue of financing innovation, Professor Fu emphasised the need to provide funding for startups and SMEs, especially during the phases between research and commercialisation, known as the innovation valley of death. Without sufficient funding, many of them will not be successful in progressing to the growth phases. However, she recognised that investments in S&T are very costly and risky. She claimed that only 15 per cent of innovation in S&T is successful, and among these successful cases, only half will be commercialised.

Brother Ibrahim Khan discussed two important ideas for our consideration: the first is related to the Islamic principles regarding innovation in S&T; the second is related to VC. He suggested that innovation in S&T is close to the heart of Shariah. Muslims are encouraged to obtain education and reflect on the creation of Allah SWT. He then discussed the investment strategies of VC firms and how they differ from those of PE firms. VC firms tend to invest in teams and ideas at the very early stage, often before a startup has developed income-generating models. He also suggested that there are very minimal Shariah concerns about VC investment models because VC firms tend to use equity investments.

Brother Ibrahim highlighted countries that want to develop domestic VC capabilities need to explore their competitive edge relative to other countries and develop industries based on their competitive advantage. For example, South Korea and Taiwan have been focusing on the semiconductor industry, Israel's focus is on cyber security and military technology, while in the UK, it is fintech. He suggested that the success factor for these countries is their VC ecosystem development. It is not only about the money. A strong VC ecosystem requires technology talent, experience, and networks.

Several key ideas arose from the question-and-answer session. Professor Jameel emphasised that although more than a hundred candidates for COVID-19 vaccines are still in clinical trials, only eight have been authorised for public use. Regarding the financing models for vaccine development, Professor Jameel highlighted the need for a de-risking mechanism, either by using government or VC funding or making pre-order arrangements. In the case of COVID-19 vaccines, we know that even before these vaccines were authorised for public use, there were pre-order arrangements made by governments around the world. These provided a source of income for the companies to continue developing their vaccines.

Professor Fu then discussed the issue of investment valuation as it relates to innovation in S&T, especially during the early stage of innovation and commercialisation. How can investors value innovation? Her team has developed an algorithm that combines artificial intelligence, machine learning, and econometrics to allow investors to quickly value innovative solutions at low costs.

Tan Sri Abdul Wahid Omar responded to the issue of deforestation in Malaysia. He mentioned that the palm oil industry in Malaysia abides by the Malaysian Sustainable Palm Oil standard, although there is room for further improvement. He highlighted that 55 per cent of Malaysia's landmass is covered by forests, and the Malaysian government is trying its best to ensure that there is no deforestation in these areas.

Mr Abdelkader, Mr Mohamed Iqbal Assaria, and Professor Engku Rabiah Adawiah posed similar questions related to vaccine development particularly on the development of vaccines has been mainly funded using public funds; however, has there been enough benefit returning to the public? Professor Fu suggested two possible reforms: the first is related to intellectual property protection; the second on policy intervention. Both reforms need to take place at the global level. First, the diffusion of intellectual property should not be just about sharing it, but it should also be about its production and supply chain management. Second, policy intervention is necessary to ensure that publicly funded projects benefit the public. In Bangladesh, for example, although many people suffered a loss of income during the COVID-19 pandemic, they were able to utilise technology supported by the government to gain additional income.

Lastly, Brother Nash Jaffer asked why OIC countries have not been able to develop robust VC capability. Mr Ibrahim Khan again emphasised the need for a venture capital ecosystem. In the US, several pension funds and university endowment funds have allocated funding to VC firms. Although these organisations often have the intentions to support innovation and the funding to do so, they are not very good at sourcing and selecting high-quality investment opportunities. VC firms have the right skills to find and select these investment opportunities. As such, a collaboration between these organisations is essential to create an ecosystem conducive to innovation.

We need to move fast. We will make mistakes; however, by learning from our mistakes, we can make further improvements and succeed.

CONCLUDING REMARKS

Sharifatul Hanizah Said Ali
Executive Director
Islamic Capital Market Development
Securities Commission Malaysia

I would like to start by saying that holding Roundtable virtually last year was unprecedented. We had high hopes that we would be able to meet this year face-to-face again. However, we could only plan. The COVID-19 pandemic has persisted longer than we expected. After almost two years of living with the COVID-19 pandemic, virtual meetings are the new normal. Despite embracing new norms, businesses, and the economy, in general, are still facing immense pressure caused by the pandemic. The prevailing situation makes us ponder whether the current circumstances could be the outcomes of a flawed or weak economic framework. It might be extreme to blame only the economic system for the vulnerabilities we have been observing, but it is undeniable that there is a need for reforming and resetting the objectives of the financial markets, including the capital markets, among others.

It would be a utopian hope to find a solution that works for all. But I believe discussions like the ones we have had during the Roundtable have continued to give birth to innovative outcomes and actionable progress. Last year, we discussed the topic of 'Repurposing Islamic Finance for Longer-Term Opportunities'. Following the Roundtable, a series of workshops were organised on social impact, which helped shape relevant longer-term planned actions in the recently released *Capital Market Masterplan 3*. This year, we deliberated on rethinking the economic framework based on a new social contract. Looking at the trends of the discussions, we can see that the focus has continued to be on the importance of maintaining the sustainability of welfare for individuals, businesses, and society. The concept of a social contract, which emphasises the relationship between individuals and institutions, is indeed intriguing and deserves more discussions and conversations. By redefining the limits, rights, and roles of each towards others, we can establish guidelines for societal interactions that promote collective benefits rather than individual gains in the long term. What remains true is that we will always live and coexist together in a society.

It has been acknowledged that technology, such as fintech, has emerged as an enabler for businesses to survive and grow despite the trying times. But the reality is that startups are mostly micro, small, and medium enterprises, and many are vulnerable and susceptible to fluctuating economic conditions. From the discussions held earlier, we spoke about how Islamic finance can play a role in spurring innovation and technological advancement. This is surely one of the SC's agendas for the ICM in Malaysia. We aim to ensure that market-based fundraising options remain a viable funding solution for SMEs.

Sustainability and well-being are not foreign concepts to Islamic finance, with *maqasid al-Shariah* being engraved at its heart, which in essence is about protecting and maintaining life, religion, property, intellect, and progeny. As shared by the SC's Chairman Datuk Syed Zaid, we recognise the need for joined-up thinking and action between various stakeholders and collaboration between securities regulators in pursuit of a common vision for *maqasid al-Shariah*-driven ICM fit for the post-COVID economic recovery – one that is especially needed in resource mobilisation, infrastructure funding, wealth creation, poverty alleviation, financial inclusion, and retirement planning. I hope the SC-OCIS Roundtable will continue to maintain its relevance as a platform that sparks ideation and progress in Islamic finance.

Lastly, I would like to extend my deepest appreciation and gratitude to everyone who was involved and immersed themselves in the 12th SC-OCIS Roundtable in the last two days, including the chairs, rapporteurs, respondents, and floor respondents, as well as the teams from both the SC and OCIS who have worked together in materialising this Roundtable. I look forward to meeting everyone again next year in good health and circumstances, but undoubtedly, with the same resolve to incite more interactions in the thought leadership space for Islamic finance.

SPEAKER PROFILES

1. HRH Sultan Nazrin Muizzuddin Shah
2. Datuk Syed Zaid Albar
3. Dr Farhan Nizami
4. Datuk Zainal Izlan Zainal Abidin
5. Sharifatul Hanizah Said Ali
6. Nash Jaffer
7. Mohamed Iqbal Asaria
8. Professor Dr Mehmet Asutay
9. Abdulkader Thomas
10. Dr Muhammad Meki
11. Professor Shahid Jameel
12. Professor Xiaolan Fu
13. Ibrahim Khan
14. Dr Lee Siew-Peng
15. Dr Hashim Jusoh
16. Dr Abdelkader El Alaoui
17. Dr Basil Mustafa
18. Siti Rosina Attaullah
19. Shabnam Mokhtar

HRH Sultan Nazrin Muizzuddin Shah
Sultan of Perak, Malaysia
Royal Patron for Malaysia's Islamic Finance Initiative

HIS ROYAL HIGHNESS SULTAN NAZRIN MUIZZUDDIN SHAH is the 35th Sultan of the state of Perak, Malaysia. He ascended to the throne on the 29 May 2014, upon the demise of his father, His Royal Highness Sultan Azlan Muhibbuddin Shah.

His Royal Highness was the Financial Ambassador for the Malaysian International Islamic Financial Centre (MIFC) and is currently the Royal Patron for Malaysia's Islamic Finance Initiative. His Royal Highness is Chancellor of the University of Malaya; Honorary Fellow of Worcester College, Oxford, and of Magdalene College and St. Edmund's College, both Cambridge; Member of the Board of Trustees of the Oxford Centre for Islamic Studies; Royal Fellow of the Institute of Strategic and International Studies, Malaysia; Royal Fellow of the Malaysian Institute of Defence and Security.

His research interests are in the areas of economic and political development in Southeast Asia, economic growth in developing countries and economic history. He has written articles and spoken on a wide range of issues including constitutional monarchy, nation-building, governance, Islam, Islamic finance, ethno-religious relations, education and socio-economic development.

His Royal Highness holds a B.A. in Philosophy, Politics and Economics from the University of Oxford and a Ph.D. in Political Economy and Government from Harvard University.

Datuk Syed Zaid Albar
Executive Chairman
Securities Commission Malaysia

DATUK SYED ZAID ALBAR is the Executive Chairman of the Securities Commission Malaysia (SC). Prior to his appointment as the SC Chairman on 1 November 2018, he was the Managing Partner of an established law firm in KL.

Syed Zaid was appointed as Chairman of the Securities Industry Development Corporation (SIDC) in January 2020, the learning and development arm of the SC. He chairs the Board of Trustees of the Capital Market Development Fund (CMDF), a statutory fund established in 2002 with the objective of funding the development and promotion of the capital market.

As the Chairman of the Commission, Syed Zaid is a member of BNM's Financial Stability Executive Committee (FSEC) chaired by the Governor of BNM and the Board of Trustees of the Financial Reporting Foundation.

On the international front, Syed Zaid was the Vice Chair of the Growth and Emerging Markets Committee (GEM) of the International Organization of Securities Commissions (IOSCO) from 2019 to 2020.

From June 2020 to date, he is the Board representative for the Asia Pacific Regional Committee (APRC) of IOSCO, and a member of the governing Board of IOSCO, the global body of capital market regulators. He is also the Vice Chair of the Management Committee of the IOSCO Asia Pacific Hub based in Kuala Lumpur. Syed Zaid also represents the SC in the ASEAN Capital Markets Forum (ACMF).

Syed Zaid is a Barrister at Law of the Lincoln's Inn, UK. He has a degree in law from the UK. Prior to joining the SC, he has been an active practitioner for over 38 years, predominantly in the fields of corporate law, banking and capital market (debt and equity) in the area of both conventional and Islamic finance. His contribution and achievements in the legal practice has been recognised through numerous domestic and international awards.

Note: Datuk Syed Zaid Albar retired as Chairman, Securities Commission Malaysia on 31 May 2022.

Dr Farhan Nizami
Director
Oxford Centre for Islamic Studies, UK

FARHAN NIZAMI CBE (D.Phil.Oxon) is the Prince of Wales Fellow in the study of the Islamic World, Magdalen College, Oxford University and the Founder Director of the Oxford Centre for Islamic Studies. He read Modern History at Wadham College.

From 1983, he was a Fellow of St Cross College, Oxford: Rothman's Fellow in Muslim History and subsequently Fellow in Islamic Studies.

He is an Emeritus Fellow of St Cross College and a member of the Faculty of History and of Oriental Studies at the University of Oxford. He is Founder Editor of the *Journal of Islamic Studies* (OUP, 1990-To Date); Series Editor, *Makers of Islamic Civilization* (OUP, 2004-To Date). He specialises in Muslim social and intellectual history.

Datuk Zainal Izlan Zainal Abidin
Deputy Chief Executive
Securities Commission Malaysia

DATUK ZAINAL IZLAN was appointed Deputy Chief Executive of the SC on 5 April 2018.

He joined the SC in January 2011 as Executive Director, Islamic Capital Market and was appointed Managing Director, Development and Islamic Markets in November 2016. He currently provides direct oversight on the SC's Supervision and Surveillance functions as well as the People and Corporate Resources division. He is also Chairman of Capital Markets Malaysia, an entity established by the SC to promote the Malaysian capital market.

Datuk Zainal Izlan holds a Bachelor of Science in Economics (dual concentration in Accounting and Finance) from The Wharton School, University of Pennsylvania, US, and is a Chartered Financial Analyst (CFA) charterholder. He has 30 years' experience in the financial services industry. He began his career with Citibank before moving to MIDF Amanah Asset Management. Just prior to joining the SC, Datuk Zainal Izlan was the Chief Executive Officer of i-VCAP Management.

Sharifatul Hanizah Said Ali
Executive Director
Securities Commission Malaysia

SHARIFATUL HANIZAH is the Executive Director of Islamic Capital Market Development (ICMD) of the SC.

At ICMD, she leads a team that facilitates developmental initiatives for Malaysia's ICM, reviews industry proposals and undertakes Shariah-compliant securities review for listed companies from the Shariah perspective. This encompasses initiatives through the deepening and broadening of ICM products and services, to further facilitate globalisation of Malaysia as an ICM hub.

Sharifatul Hanizah has an extensive and diverse experience of over 30 years in the fields of investment analysis, portfolio management, equity trading and unit trust while serving in various organisations such as Permodalan Nasional Bhd (PNB), RHB Investment Management Sdn Bhd and Muamalat Invest. During her tenure in PNB and RHB, Sharifatul Hanizah's board experience was vast, spanning consumer goods, technology and manufacturing companies. She served on the boards of exchange-listed and private companies as a Nominee Director for both organisations.

Prior to joining the SC in August 2019, Sharifatul Hanizah was the Chief Executive Officer of SIDC, the learning and development arm of the SC. She is a Fellow of the Financial Services Institute of Australasia (F Fin), a Certified Financial Planner (CFP), an Islamic Financial Planner (IFP) and a Fellow of the Institute of Corporate Directors Malaysia (ICDM).

Nash Jaffer
Director
Leadenhall Partners, UK

NASH JAFFER is an experienced Chartered Accountant and Chartered Tax Adviser, who specialises in structuring real estate transactions and funds. Having previously worked at PricewaterhouseCoopers and Ernst & Young, where he accumulated considerable experience including closing real estate funds, tax planning and transaction advisory. He co-founded Leadenhall Partners and advises several real estate funds undertaking significant projects in central London, particularly on structuring, due diligence, corporate governance, investor reporting and the financial aspects of the developments. Nash designed and implemented the structure of a real estate development, and the transaction won the Euromoney Islamic Finance Award for the best global real estate deal.

Nash speaks regularly at real estate and Islamic Finance conferences. As a stakeholder, he has participated in meetings organised by the All-Party Parliamentary Group on Islamic Finance and roundtable discussions. He has written the tax section of a chapter in the book, *Islamic Finance: Law and Practice* published by Oxford University Press and represented EY on the HMT/HMRC Islamic Finance Tax Technical Committee.

Nash serves as a Trustee and Chair of the Audit & Risk Committee of CareTech Foundation. The Foundation delivers meaningful impact to communities in the UK and overseas by supporting and championing the social care sector, care workers and those living in care.

Passionate about social mobility, Nash as Chairman has guided the Caridon Foundation in its transition from start-up to a local market leader in the supported housing segment of the social housing sector.

Nash has served as the Honorary Treasurer of the Muslim Council of Britain, a diverse national umbrella body for over 500 Muslim organisations nationwide, empowering Muslim communities towards achieving a just, cohesive, and successful British society.

Nash graduated from the University of Manchester in Mathematics.

Mohamed Iqbal Asaria
Director
Afkar Group of Companies, UK

M IQBAL ASARIA is a Special Adviser on Business and Economic Affairs to the Secretary General of the Muslim Council of Britain. In this capacity, he was a member of the Governor of the Bank of England's working party set up to facilitate the introduction of Shariah-compliant financial products in the UK market.

Iqbal is Visiting Professor at London Institute of Banking and Finance (LIBF). He teaches the Islamic Finance, Accounting, Banking and Insurance courses at Bangor Business School. Iqbal teaches the Chartered Banker module on Islamic Finance and Banking for Bangor Business School. He has been a contributing tutor at Durham University's prestigious Summer School on Islamic Finance for the last eight years. Iqbal is the co-author of the *Chartered Insurance Institute's* (CII) *590 Diploma* level module on *Takaful*.

For the last fourteen years the Afkar Group has been organising the annual International Takaful Summit (ITS) in London, which attracts over 300 participants and providers from the global *Takaful* (Islamic Insurance) industry. This summit has become the leading thought forum for the global *Takaful* industry. Iqbal is the convenor of the ITS. In 2019 the Afkar Group organised the first Responsible Finance Summit (RFS) in London. Iqbal was also the convenor of the RFS 2019.

He was awarded the CBE in the 2005 Queen's Honours List for services to international development.

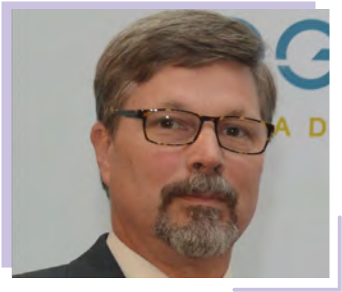
Professor Dr Mehmet Asutay
Director, Durham Centre for Islamic Economics and Finance
Durham University, UK

MEHMET ASUTAY is a Professor of Middle Eastern and Islamic Political Economy & Finance at the Durham University Business School, and the Director of the Durham Centre in Islamic Economics and Finance as well as Programme Director of Islamic finance master programmes.

Mehmet's teaching, research, publication, and supervision of research are all in Islamic moral economy/Islamic economics, Islamic finance and banking, Islamic political economy, Islamic governance and management and the Middle Eastern political economies. His articles on his research interest have appeared in various international academic journals and professional magazines. He has also published manuscripts and edited books on aspects of Islamic moral economy and Islamic finance, the latest of which are: *A Model for Islamic Development: An Approach in Islamic Moral Economy* (with S. Jan, 2019), *Mapping the Risks and Risk Management Practices in Islamic Banking* (with W. Eid, 2019).

Mehmet's recent research includes the construction of Islamic moral economy and Islamic political economy; and their articulation in economic and sustainable development. In addition, his research focused on locating Islamic banking and finance within the expressed ideals of Islamic moral economy by essentialising sharing and collaborative economy nature of Islamic finance. Mehmet is also involved in empirical research in various aspects and dynamics of Islamic banking and finance as well as examining the political economy determinants and consequences of various Islamic finance industry development models.

Mehmet is the Editor in Chief of the *American Journal of Islamic and Society*, the *International Journal of Islamic Economics and Finance Studies*, and the *Review of Islamic Economics*. Mehmet is also a Board Member of the International Association for Islamic Economics.



Abdulkader Thomas
President and Chief Executive Officer
SHAPE® Knowledge Services
SC-OCIS Scholar in Residence 2020/21

ABDULKADER has over 40 years of diversified global financial services experience. His areas of activity have included trade finance, real estate, securities, and alternative finance at global and regional financial institutions.

Along with his team at SHAPE®, Abdulkader works on projects that include launching de novo Islamic banks and Islamic banking windows, policies and procedures including Shariah policies, Shariah compliance, product development and structuring. Clients include a diversified universe of financial institutions and technology players from North America, the MENA region, Southeast Asia, Africa, and Europe. Recent structuring activities include big data and revenue financing projects for SMEs in Africa, UK, US and Australasia.

As the general manager of a foreign bank branch in New York, he was responsible for securing the first US banking regulatory approvals of alternative financial instruments in the mortgage and installment credit/sale as banking instruments. Later as the founding member of a *de novo* bank project, he secured FDIC approval for profit sharing deposits.

Abdulkader has served as a technical expert on the Shariah board of Bank Muscat Meethaq (Oman). He chairs the committee at Sterling Bank (Nigeria) and consults for University Islamic Financial (US). He also serves as a non-executive director of Alkhabeer Capital in Jeddah and Strategic Ratings (London). He is an advisor to the board of Algbra, a UK FinTech. He has acted as a member of the international advisory board of the SC.

He is the co-author of *Structuring Islamic Finance Transactions* (Euromoney 2005), *Interest in Islamic Economics* (Routledge 2005), *Islamic Bonds* (Euromoney 2004), *Sukuk* (Sweet & Maxwell 2009), and *Managing Funds Flow Risks and Derivatives: Applications in Islamic Institutions* (Sweet & Maxwell 2012) and *Housing the Nation* (Cagamas 2013).

Dr Muhammad Meki
Sultan Hassanal Bolkiah Fellow in Islamic Finance,
Oxford Centre for Islamic Studies, UK
Lecturer in Oxford Department of International
Development, University of Oxford, UK

As the Sultan Hassanal Bolkiah Fellow in Islamic Finance, Muhammad Meki's research interests are focused on the effect of equity-like (*musharakah*-based) microfinance contracts (which involve profit and loss sharing and/or shared asset ownership) on the investment and growth of microenterprises in developing countries. Muhammad is also a lecturer at the Oxford Department of International Development, UK.

Before undertaking his doctoral research (in the University's Department of Economics and St. John's College, Oxford), Muhammad Meki worked for five years in financial markets (Bank of America in London and Deutsche Bank in Singapore) where he traded fixed-income products, foreign exchange derivatives and government bonds. He has previously completed postgraduate degrees in Finance (MSc, London School of Economics), Economics (PGDip, Cambridge) and Economics for Development (MSc, Oxford).

Professor Shahid Jameel

Sultan Qaboos Fellow, Oxford Centre for Islamic Studies, UK
Former Chief Executive Officer, Wellcome Trust DBT India Alliance

DR SHAHID JAMEEL studied Chemistry at the Aligarh Muslim University and Indian Institute of Technology-Kanpur, India and obtained a PhD in Biochemistry at Washington State University, US. His postdoctoral work in Virology was at the University of Colorado Health Sciences Center, Denver, US. In 1988 Dr. Jameel set up the Virology Group at the International Centre for Genetic Engineering and Biotechnology, New Delhi, India and led it for 25 years, where his research focused on human viruses. He is a recipient of the Shanti Swarup Bhatnagar Prize, which is India's highest science award, and is also an elected Fellow of all the science academies in India. In 2013 Dr Jameel was appointed as CEO of the DBT/Wellcome Trust India Alliance, a biomedical research charity based in India. In October 2020 he took over as Founding Director of the Trivedi School of Biosciences at Ashoka University, a leading liberal arts university, where he continues as an Honorary Professor. Dr. Jameel is now the Sultan Qaboos bin Said Fellow at the Oxford Centre for Islamic Studies, and a Research Fellow at the Green Templeton College, University of Oxford, UK.

Professor Xiaolan Fu
Professor of Technology and International Development Department
Founding Director of the Technology and Management Centre for Development, University of Oxford, UK

XIAOLAN FU is the Founding Director of the Technology and Management Centre for Development (TMCD), Professor of Technology and International Development and Fellow of Green Templeton College. She was appointed by the Secretary-General of the United Nations to the Ten-Member High Level Advisory Group of the UN Technology Facilitation Mechanism and to the Governing Council of the UN's Technology Bank for Least Developed Countries. She is also a member of the UN SDSN Leadership Council led by Jeffrey Sachs. She is the Winner of 2021 Falling Walls Scientific Breakthrough Award, 2021 R&D Management annual conference Best Paper for collaboration and alliance track, 2019 winner of the CFA Asia-Pacific Research Exchange Award (CFA Institute), the 2018 winner of the Best Journal Paper of the Year Award (European Academy of International Business), and the 2017 winner of the Best Paper Award (European Association of Management (EURAM) Innovation Strategic Interest Group).

Her research interests include innovation, technology and industrialisation; trade, foreign direct investment and economic development; emerging Asian economies; innovation and productivity in the UK/US. She has published extensively in leading international journals independently or in collaboration with others. Her recent books include *Innovation under the Radar*, *China's Path to Innovation*, *China's Role in Global Economic Recovery* and *The Rise of Technological Power in the South.* She was Editor-in-Chief of the *Journal of Chinese Economic and Business Studies*, Associate Editor of R&D Management, and serves on the editorial boards of *Industrial and Corporate Change*, *International Journal of Technology Management*, and four other international journals.

Ibrahim Khan
Co-founder
Islamic Finance Guru

IBRAHIM holds a BA in Philosophy, Politics, and Economics from the University of Oxford, an *ijazah* in the memorisation of the Qur'an from Egypt, and an MA in Islamic Banking and Finance from Markfield Institute. He is a graduate of the Alimiyyah programme (traditional Islamic scholar) under the tutelage of Shaykh Akram Nadwi.

He previously worked as a funds lawyer in London at Debevoise & Plimpton LLP and, before that, Ashurst LLP.

He also studied at the Chartered Institute For Securities and Investment and holds a Diploma in Investment Advice and Financial Planning as well as a Certificate in Investment Management.

He has lectured extensively on Islamic finance, investment and *zakat* in mosques, universities, and schools around the UK.

Dr Lee Siew-Peng
SC-OCIS Scholar in Residence 2018/19
Assistant Professor
Universiti Tunku Abdul Rahman, Malaysia

DR LEE SIEW-PENG is an Assistant Professor in Finance at the Universiti Tunku Abdul Rahman, Malaysia. She obtained her Ph.D. in Finance from Universiti Malaya in 2010. She has been teaching in Universiti Tunku Abdul Rahman since 2003. She was also the SC-OCIS Visiting Fellow in Islamic Finance for the academic year 2018/2019 at the OCIS Oxford University.

Dr Lee is active in conducting financial research. Her research focus is on Islamic finance, capital markets, corporate finance, and corporate social responsibility. She has published numerous journal articles and book chapters. Dr Lee's current research interest is in sustainable finance, looking into how Islamic finance plays a role in environmental and financial sustainability, in developed as well as in emerging markets.

Dr Hashim Jusoh
SC-OCIS Scholar in Residence 2018/19
Senior Lecturer, Faculty of Economics and Management Sciences, University Sultan Zainal Abidin Malaysia

DR HASHIM JUSOH is a Senior Lecturer at the Faculty of Business and Management, University Sultan Zainal Abidin. He completed his PhD in Islamic Finance from International Centre for Education in Islamic Finance (INCEIF); MBA from University Teknologi MARA (UiTM) and BBA (1^{st} Class Hons.) (Finance) from Institut Teknologi MARA (ITM) where he also received the university's prestigious award for his outstanding achievement. He was an SC-OCIS Visiting Fellow in Islamic Finance 2018/2019 at the OCIS. His publication appears in the *Quarterly Review of Economics and Finance*, and in several book chapters. He is also a reviewer of the *Journal of International Financial Markets, Institutions & Money.* Prior to joining academia, he had experience in investment and fund management in Malaysia with the stockbroking firm, FA Securities Sdn Bhd, the Islamic asset management firm, BIMSEC Asset Management and also the Islamic unit trust firm, PTB Unit Trust Bhd.

Dr Abdelkader El Alaoui
Associate Professor of Finance
Rabat Business School
International University of Rabat Morocco

DR ABDELKADER is an Associate Professor of Finance at Rabat Busines School (UIR). His research interests includes capital markets, corporate finance and Islamic finance. He published chapters in International books and articles in SSCI-indexed journals as *Journal of Economic Behavior & Organization, Economic Modelling* and *Journal of International Financial Markets, Institutions & Money.*

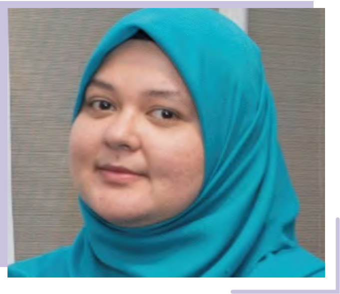
Dr Abdelkader obtained his PhD in Islamic Finance from INCEIF, Malaysia. He also holds the position of Academic Visitor in Islamic Finance at OCIS, UK and was a Visiting Academic at Durham Business School UK. Previously, he was an Associate Professor of Finance and Director of Research at ESCA.

Dr Basil Mustafa

Former Senior Bursar
Oxford Centre for Islamic Studies UK

DR MUSTAFA was the Nelson Mandela Fellow in Educational Studies at the OCIS. Dr Mustafa held an Associate Fellowship at the Said Business School, University of Oxford (2010-2012) and was an Associate Tutor at the Department for Continuing Education, University of Oxford (1998-2008). He was awarded a Visiting Professorship at the International Business School, Universiti Teknologi Malaysia (2014-2017).

Dr Mustafa has a special interest in e-learning and distance learning programmes. His taught courses at the Oxford University Department for Continuing Education include 'Islam in the Modern World' and 'Islam and the West'. He has contributed to the Leadership Development Programme of the Executive Education Centre, Saïd Business School. At Saïd Business School, Basil has participated as lecturer at the Oxford Leadership Advantage Programme for State Farm Insurance, US, and coached leadership competency workshops for the Abu Dhabi Civil Service Department (2009-2011). Dr Mustafa has been a speaker and coach on the Program for Advanced Leadership and Management, Madinah, Saudi Arabia.



Siti Rosina Attaullah
Manager
Bank Negara Malaysia

SITI ROSINA ATTAULLAH is currently a Manager at the Islamic Banking and Takaful Department, BNM. She has 15 years of experience in the Islamic finance industry.

She began her career at BNM in 2005 where she was involved in strategic and developmental projects for the Islamic financial services industry. In 2013, she joined KFH Research Limited, the former investment, advisory and research arm of Kuwait Finance House. As the Head of Islamic Capital Markets Research Unit, she oversaw research and advisory services for Islamic finance, namely Islamic banking, *takaful*, sukuk, Islamic fund management, financial inclusion, as well as Islamic finance regulatory developments and financial stability analysis. Her portfolio at KFHR also comprised projects with multilateral organisations, a pension fund, corporate clients and KFH's subsidiaries in Turkey, Saudi and Bahrain.

Siti Rosina's industrial experience has also spanned over the areas of talent development. This was evidenced by her appointment as the national consultant to the Asian Development Bank (ADB) for talent migration research in ASEAN; the Panel Committee Member for the development of learning frameworks (both the Islamic Finance Professional Qualifications Structure and the Finance Professional Qualifications Structure) by the Finance Accreditation Agency. She also helped formulated the *Code of Ethics and the Code of Professional Conduct for the Chartered Institute of Islamic Finance Professionals* (CIIF).

Shabnam Mokhtar
SC-OCIS Scholar in Residence 2021/22

SHABNAM has over 17 years of experience in Islamic Finance. Currently, she spearheads research and development activities at SHAPE®. Besides analysis to develop novel Islamic finance products in different markets, Shabnam manages strategic and business plan formulation for launching of Islamic businesses. She also structures and delivers customised trainings for clients covering full spectrum of Islamic finance activities. With a global clientele experience, Shabnam brings implementation knowledge taking into account the business context, regulation and Shariah views in different markets.

Formerly, she was heading the capital markets research for the International Shariah Research Academy (ISRA). Her focus area was case study-based research projects in the sukuk market. Her prior positions include adjunct professor of finance at both Depaul University (Chicago) and IE Business School (Madrid) as well as lecturer of accounting, finance and bank management at University Putra Malaysia.

She is interested in multi-disciplinary research especially in the area of impact investing, sustainability, innovation and technology and how these may benefit Islamic finance.

ACRONYMS AND ABBREVIATIONS

CSR	Corporate social responsibility
FCPO	Crude Palm Oil Futures
FKLI	FTSE Bursa Malaysia KLCI Futures
DCF	Discounted cash flow
DNA	Deoxyribonucleic acid
ESG	environmental, social, and governance
GFC	global financial crisis
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commission
IsDB	Islamic Development Bank
MDB	Multilateral Development Bank
OIC	Organisation of Islamic Cooperation
PE	private equity
PPP	public-private partnership
RSPO	Roundtable for Sustainable Palm Oil
R&D	research and development
SDG	Sustainable Development Goal
SME	small- and medium-sized enterprise
SRI	sustainable and responsible investment
S&T	science and technology
TRIMS	*Agreement on Trade-Related Investment Measures*
TRIPS	*Agreement on Trade-Related Aspects of Intellectual Property Rights*
UK	United Kingdom
UN SDG	United Nations' Sustainable Development Goal
US	United States
USAID	United States Agency for International Development
VC	venture capital
VBI	value-based intermediation