



Cryptos: Distinguishing Hype & Realities In Islamic Finance

Reports on the SOAS-QFC Islamic Finance
Workshop and Public Lecture
15-16 June 2022

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THE SOAS PUBLIC LECTURE AND WORKSHOP ON ISLAMIC FINANCE

CRYPTOS: DISTINGUISHING HYPE & REALITIES IN ISLAMIC FINANCE

WORKSHOP AND PUBLIC LECTURE REPORTS

15-16 June 2022

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INTRODUCTION

I am pleased to present the 15th annual SOAS-QFC Public Lecture and Workshop reports on the role of cryptocurrencies in Islamic finance. Despite their novelty, cryptocurrencies are now a regular feature of financial markets, but high-profile bankruptcies and scandals underscore the controversy and concern that continue to surround this new mode of decentralized finance. Nowhere is this concern more pronounced and actively discussed than amongst Islamic finance practitioners and academics whose religious, ethical, and moral compass is grounded in the Qur'an and the rich tradition of Islamic jurisprudence (*fiqh*). The SOAS-QFC Public Lecture and Workshop are one of the first Islamic finance related forums to have initiated discussion concerning cryptocurrencies and their relation to Islamic principles and rules for currencies and trade.

Harris Irfan, CFO of Gateway Capital and CEO of Cordoba Capital Ltd, delivered the in-person keynote lecture whereas Professor Dr Koutoub Mustafa Sano, Secretary General of the OIC Islamic Fiqh Academy joined us online from Jeddah, Saudi Arabia. Both lectures were illuminating, highlighting the role of Islamic law and principles to navigate these impersonalized, blockchain facilitated modes of payment and exchange. However, perhaps the most salient outcome is the idea that cryptocurrencies can facilitate a truly Islamic economy in the global, interest-based financial system. The truest indicator of a lecture's success, which is active discussion from the audience, was confirmed in an incredibly lively and active post lecture debate. Please refer to the lecture report in this publication for a fascinating synopsis of Harris Irfan's lecture.

The SOAS-QFC workshop draws a select group of around 40 leading shari'ah scholars, economists, legal practitioners, bankers, and academics to gather for a day long closed-door discussion on an important contemporary theme within the field of Islamic finance. The workshop and public lecture are unique events with almost no parallel in the Islamic finance industry. The workshop is designed to discuss in the most rigorous and unfettered fashion a contemporary topic, which participants choose by poll in advance of the workshop. Because the workshop is not open to the public and adheres to Chatham House rules, which means that the information of the workshop may be reported but the source of the information may not be explicitly or implicitly identified, discussion is critical and without social or industry constraint.

The workshop reports are based on written commentaries or position papers which workshop participants submit prior to the workshop, as well as the written transcriptions of the workshop proceedings. The voluminous material is compiled in two reports. The first, which I refer to as the 'analytical workshop report' provides an analytical perspective of the material. I would like to thank Dr Amel Makhlof, who has provided her global perspective of the issues in this year's analytical workshop report. In the second report, Dr Fares Djafri has compiled a succinct 'summary of the commentaries' that addresses the major workshop themes and does not expand on or rely on secondary sources.

ISLAMIC FINANCE WORKSHOPS (2006 – 2022)

Year	Title of the Workshop	Institutional Host
2022	Cryptocurrencies: Distinguishing Hype and Realities in Islamic Finance	SOAS, University of London
2020	Islamic Social Finance and the Sustainable Development Goals	SOAS, University of London
2019	Responsible Investment, Value-based Intermediation and the Future of Islamic Finance	SOAS, University of London
2018	Challenging Shari'ah Compliance of Islamic Finance Products	SOAS, University of London
2017	Fin Tech and Islamic Finance	London School of Economics
2016	Islamic Infrastructure and Sustainable Development Goals	London School of Economics
2015	Revisiting Islamic Securitisation and Structured Products	London School of Economics
2014	Use and Abuse of Limited Liability	London School of Economics
2013	Insolvency and Debt Restructuring in Islamic Finance	London School of Economics
2012	Islamic Financial Intermediation: Revisiting the Value Proposition	London School of Economics
2011	Reappraising the Islamic Financial Sector	London School of Economics
2010	Islamic Financial Ethics and Ethical Governance	London School of Economics
2009	Risk Management: Islamic Economic and Ethico-legal Perspective on Risk Management	London School of Economics
2008	Sukuk: Economic and Jurisprudential Perspective	London School of Economics
2007	Tawarruq: A Methodological Issue in Shari'ah-Compliant Finance	London School of Economics
2006	Select Ethical and Methodological Issues in Shari'ah-Compliant Finance	Harvard Law School

The annual public lecture is delivered by an esteemed practitioner in the Islamic finance industry and a senior academic offers critical analysis of the lecture topic. The report provides a summary of the public lecture, its main themes and discussion points. The topic of the public lecture is conceptually related to the workshop and so it offers a primer for more detailed, in-depth workshop discussion.

ISLAMIC FINANCE PUBLIC LECTURES (2007 – 2022)

Year	Chair	Industry Professional	Academic/Scholar	Theme
2022	Sir Ross Cranston	Harris Irfan	Prof Koutoub Mustafa Sano	Cryptocurrencies: How will Islamic finance and law (<i>fiqh</i>) adapt to the new economic paradigm?
2020	Sir William Blair	Prof Habib Ahmed	Dr Jonathan Ercanbrack	Islamic Social Finance and the Sustainable Development Goals
2019	Sir William Blair	Rafe Haneef	Dr Jonathan Ercanbrack	Towards Sustainable Development: Convergence of Islamic and Sustainable Finance
2018	Dr Jonathan Ercanbrack	Michael McMillen	Nick Foster	Redefining and Retaining Sharia Compliance in Islamic Finance
2017	Sir Ross Cranston	Prof Volker Nienhaus		Fintech in Islamic Finance: Shariah and Regulatory Issues
2016	Sir William Blair	Aamir Rehman	Siraj Sait	Revitalising Islamic and Social Finance: Rising to Current Humanitarian Challenges
2015	Sir William Blair	Jaseem Ahmed		Islamic Finance Standardization: Is it a Mirage?
2014	Prof David R Kershaw	Farmida Bi	Paul Mills	Risk Sharing and Cooperative Finance
2013	Sir William Blair	Azman Mokhtar	Frank E. Vogel	Islamic Finance and Shari'ah Compliance: Reality and Expectation
2012	Sir Ross Cranston	Muhktar Hussain	Volker Nienhaus	Global Calls for Economic Justice: The Potential for Islamic Finance
2011	Sir Howard Davies	Iqbal Khan	Haytham Tamimi	Building Bridges Across Financial Communities
2010	Prof Sarah Worthington	Stephen Green	M Umer Chapra	Global Perspectives on Islamic Finance
2009	Sir Howard Davies	Ian Pearson	Esam Ishaq	Islamic Finance in the United Kingdom: Current Initiatives and Challenges
2007	Sir Ross Cranston	Michael Hanlon	Mohammed Elgari	Islamic Finance: Relevance and Growth in the Modern Financial Age

I would like to thank Professor Syed Nazim Ali of Hamad Bin Khalifa University, Doha, Qatar, for his leadership in conceptualizing, organizing, and co-hosting these events. Prof Nazim, as many of you know, is the person responsible for making these events an Islamic Finance institution with increasing global recognition. I would also like to thank Professor Dr Mohamad Akram Laldin, and the organisation he directs, ISRA, for his invaluable support and collaboration of these events. Mr Husam El-Khatib, a steadfast participant and supporter of these events since their inception, deserves our gratitude too. Further, I want to give particular thanks to Professor Frank E. Vogel, Founding Director of the Islamic Legal Studies Program at Harvard Law School, who has moderated the workshop for as long as it has existed. The moderation of this type of workshop requires a skill set that only someone of Prof Vogel's stature can bring to bear. There are many others whose contributions are critical to these events and my collaborators, and I am truly grateful to them. Thank you.

I hope that you enjoy these reports and find it as insightful and instructive as I do.

Happy reading,

Dr Jonathan Ercanbrack

Chair

Centre of Islamic and Middle Eastern Law

Senior Lecturer, Transnational Financial Law



PUBLIC LECTURE REPORT
SOAS Islamic Finance Public Lecture
15 June 2022

Cryptocurrencies: How will Islamic finance and law (*fiqh*) adapt to the new economic paradigm? (God's Money: fix the Money, Fix the World)

Harris Irfan¹

Introduction

This lecture attempts to answer three questions:

1. Is something wrong with our current monetary and financial system?
2. Does Islam offer an alternative socially just economic model?
3. Is there room for bitcoin (BTC) in the future of Islamic (and Judeo-Christian) finance?

Over thirty years ago, I had my first brush with Islamic finance: a group of bankers from a Middle East Islamic bank presented the concept of Islamic finance to my university Islamic Society. Disappointingly, the evening was not a success: they spoke in impenetrable jargon, focused on technical minutiae and failed to connect with their audience. They missed an opportunity to make the subject relevant to the world we live in and introduce our young minds to the importance of a just, halal economic system. I strongly believe the reason is that they simply didn't understand their subject matter well enough. In the words of the physicist Richard Feynman, "If you want to master something, teach it." They were not masters of their subject.

In the following three decades, I have not seen much improvement in the ability of the Islamic banking industry to appeal to the hearts and minds of their target demographic. Nowhere is this better demonstrated than in the UK, where the UK's only retail Islamic bank has a 2% penetration rate of its target market and has recently shuttered its last remaining retail branch.

Muslims without any background in finance or economics have started to question whether Islamic banking is truly halal and indeed whether the bankers themselves understand the Islamic economic model. There is a trust gap between bankers and their customers which we shall examine further in this lecture. We shall also investigate how the Islamic economic model might be better served by looking outside the existing monetary system and consider instead recent advances in cryptocurrency.

¹ CEO, Cardoba Capital Market Ltd, London, UK.

What is Money and How Did it Originate?

The commonly accepted view is that money is a medium of exchange, a store of value and a unit of account. It is used to measure value in real goods and services, the “real economy”. Its essential purpose is not to be a commodity to be traded.

Although economists may disagree, some anthropologists postulate that money originated as debt: an IOU for goods or services issued by a credible individual that circulates in the community and acts as a medium of exchange for other goods and services, allowing immediate needs to be satisfied without the inefficiencies of a barter economy². However, the original purpose of money becomes distorted by greed and the pursuit of power – on this point, both orthodox and heterodox economists will agree.

Slavery originated through the conquer of civilisations by more powerful neighbours: thus, human beings were reduced to property. But slavery was not merely a consequence of military conquest – in fact interest-bearing debt led to the same result. Temples lent commodities at a fixed rate of interest to merchants for trading purposes, often with collateral requirements; if the merchant was unable to repay, and collateral was insufficient, then the merchant’s family could be offered as debt peons instead³. Debt led to slavery.

Violent coercion was the primary enforcement mechanism to ensure debt peonage was passed down through the generations. However, the threat of revolt by a slave population that had become too numerous created an incentive for rulers to “wipe the slate clean” periodically. Thus, we see, for example, the Law of Jubilee instituted by the governor of



² David Graeber, *Debt: The First 5,000 Years* (Melville House Publishing, 2013).

³ Ibid.

Judea in the fifth century BCE: every sabbath (seventh) year, debt peons would be returned to their families (Nehemiah 10:32, Deuteronomy 15:1-11).

Abrahamic religions outlawed interest for the sake of fairness, equality and social justice. Muslims' framework for the elimination of interest was most developed. This model developed from Quranic injunctions, *hadīth* and the work of subsequent scholars who codified the jurisprudence of commercial transactions (*fiqh al-mu'amalat*). Amongst scholars, the consensus opinion is that interest represents an excess of money on money and is *ḥarām*. Any act of creating money out of money (or out of nothing) must also therefore be *ḥarām*. This is the essence of the modern fractional reserve banking system, to which even Islamic banks must adhere. We shall explore this topic later.

I contend that modern economics is driven by the political ideology of lawmakers who misunderstand how the monetary system works. For example, in November 2014, the UK's House of Commons debated money creation for the first time in 170 years and at that same time were polled privately on this subject. 71% of MPs incorrectly believed only government has the power to create money, whereas in fact 97% of money in the UK economy is created by private banks through the act of credit creation⁴.

Exchange Value vs Experiential Value

Empirically-based statistical analysis of economic history is widely ignored by high school and university economics curricula. Lobbying and funding of MBA schools and economics faculties by large corporations has led to a selective amnesia resulting in swathes of economic history being ignored⁵.

The result is a dogma that is not based on empirical evidence, but rather a dogma that celebrates the financialisation of the economy which leads to more debt and more financial services. Prior to its spectacular collapse, for example, for six consecutive years Enron was feted as "America's Most Innovative Company" by Fortune magazine. Its practice of hiding debt and toxic assets in off-balance-sheet special purpose vehicles was the kind of financial trickery encouraged by financialisation.

And yet, despite this and other obvious failures, the banking lobby labels criticism of money creation or intangible derivatives instruments that are far removed from the real economy as extreme or unbalanced, like medieval priests' high-handed dismissal of lay people in Latin, which allowed them to stand between the people and the truth in order to obfuscate and control.

Examples of the failure of the monetary system abound: the 2007-2010 financial crisis involved banking bailouts in the trillions of dollars. Bailouts and boom/bust are recurrent events. Does the fault lie with the banking and monetary system, or rather with its managers? The public appears to believe it is the latter: by re-electing new governments and re-appointing new central bankers promising more prudent management of the

⁴ Positive Money, 'Poll Results: Only 1 out of 10 MPs Understand that Banks Create Money' (Poll Results, n.d.) <<https://positivemoney.org/2014/08/7-10-mps-dont-know-creates-money-uk/>>.

⁵ Michael Hudson, 'Interview by Renegade' (28 October 2017) <<https://michael-hudson.com/tag/renegade-economists/>>.

economy, apparently our boom/bust cycles will even themselves out. However, government and central bank policy has been consistently ineffective – for example, in the late 1980s, higher UK interest rates did not curb the money supply and did not reduce inflation as neoclassical economic theory suggested⁶. The logical conclusion is that the fault lies with the system.

Financialisation of the economy has led to GDP as the primary measure of progress and the unbridled pursuit of profit. As a result, governments and corporations make decisions that yield a short-term benefit but a long-term loss. Exchange value increases but experiential value decreases⁷. I refer to two examples to illustrate the point: the first from my own experience, the financing of the Abraj Al-Bait towers in Makkah which I will discuss below, and the second, a forest fire⁸. In a forest fire, perversely and despite the loss of experiential value (because there is no more forest), exchange value or GDP increases due to the use and cost of resources to mobilise and put out the fire.

Neoclassical economics establishes a framework for valuation methodologies that have similarly perverse outcomes. For example, in extremis, discounted cash flow analysis of a farming project prioritises short-term gains that may lead to desertification of originally fertile land rather than long-term sustainable farming⁹.

GDP does not measure other metrics of human progress: literacy, mental health, divorce, suicide or environmental pollution. Reliance on GDP as a measure of success leads to a market society that prefers exchange value as a metric instead of experiential value. As a result, our “time preference” increases. The resilience and sustainability of society decrease since we consume and prepare only for the immediate future. We prefer to spend money and replace things more frequently because money devalues fast. We spend money on socially useless ventures and build in obsolescence into new products. We don’t mend broken things, instead we throw them away and buy new things. We pollute and desertify. We demonstrate “high time preference”.

Saifedean Ammous describes the Fiat Business Model in simple terms as follows:

1. Find anything to sell, even (or preferably) at a loss.
2. Borrow from the Fed/Central Bank at 2%.
3. Give credit cards to customers at 20%.
4. People are in debt for stupid things they don’t need but it’s OK because inflationary fiat money loses value anyway.
5. “GDP number go up”¹⁰.

⁶ Tarek El Diwany, *The Problem with Interest* (Kreatoc Ltd, 2010).

⁷ Yanis Varoufakis, *Talking to My Daughter About the Economy* (Bodley Head, 2017).

⁸ Ibid.

⁹ See Tarek Diwany (n 5) but see also Michael Lipton, ‘The Spectre at the Fast’ (*Financial Times*, 24 June 1992).

¹⁰ Saifedean Ammous, *The Fiat Standard: The Debt Slavery Alternative to Human Civilization* (The Saif House, 2021).

This high-time preference model of borrow-spend-consume trends towards an extreme model of a market society, a joyless place that will ultimately leave us numb and spiritually unsatisfied.

The Social Effect of High-Time Preference

In 2002, I led the structuring of Deutsche Bank's financing of Safa Tower in Abraj al-Bait, Makkah. It was the first time a Western investment bank had been invited into the Holy City to finance real estate. The sophistication of this transaction and its implications for the development of the global sukuk industry distracted me from the fact that I was naively participating in the erasure of my own cultural history. Once built, the towers overlooking the Kabah would not only overshadow it but also replace the surrounding ancient landscape and buildings of immense historical significance.

By designing contractual structures that met the technical requirements of *fiqh al mu‘āmalat*, my transaction team observed the letter of the law, but we had failed to observe its spirit.

Fiat money by its nature encourages us to engage in projects that lead to immediate gratification but may have questionable long-term social values. It allows those who are privileged to sit close to the money spigot (central banks and the financial services sector) to become richer because they have access to money before it devalues, but at the expense of a much larger number of ordinary people far away from the money spigot, as well as (ultimately) their history, culture, and values.

This is because fiat money intrinsically relies on money creation through credit. Consequentially, it engenders high time preference by borrowing, spending and consuming as fast as possible, measured in aggregate by one blunt metric, GDP. We collectively lose the virtues of patience, of disciplining the *nafs* (self), of rejecting consumerism, of protecting the planet. High time preference is a mindset encouraged by financialisation and it reduces the quality of society's output. Consumerism triumphs over saving and investment in long term sustainable projects.

Because fiat money has no asset backing it is open to manipulation by the state. The world has experienced vicious economic cycles since the expropriation of citizens' gold by Roosevelt in 1933 and the removal of the gold peg by Nixon in 1971. No longer is a government constrained by its own reserves in financing war. Now it effectively depletes the wealth of all citizens (by printing money which leads to inflation) in order to maintain a perpetual state of war. It is also no coincidence that not only have the last 100 years have been the bloodiest in history but also the most environmentally destructive¹¹.

The Modern Islamic Finance Era

The origins of the modern Islamic finance era might reasonably be traced back to 1963 and the Mit Ghamr experiment. Eighty kilometres north of Cairo, the economist Dr Ahmed El-naggar founded the Mit Ghamr Savings Bank, a profit-sharing institution that neither charged nor paid interest and engaged in real economy transactions, the essence of the Islamic economic model.

¹¹ Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking* (Wiley, 2018).

Depositors became investors in local industry, sharing in the returns with the manager of their money, the 'bank'. Rather than engaging in money creation, the bank operated on a 100% reserve ratio: every penny was put to work to invest and develop businesses in a tangible way.

The experiment lasted four years during which time eight other similar institutions sprang up in Egypt. By the mid-1970s, the first Islamic banks in the GCC were capitalised, including the largest bank in the UAE, Dubai Islamic Bank. At first, the experimental phase of the modern Islamic finance industry was true to the principles of risk sharing but as the business model matured, institutions began mimicking the practices, operations and products of conventional banks.

The baton of progress was handed over to the Malaysians in the 1980s before HSBC entered the scene in the mid-90s with its Amanah brand, the first large international bank to operate a retail Islamic 'window'. Up until this point, Islamic finance had been relatively parochial, unsophisticated and expensive.

However, it wasn't until the early 2000s with the arrival of Deutsche Bank - the so-called 'flow monster' of bulge bracket firms – that the Islamic finance market exploded, as the investment bank focused its attention on this relative backwater.

Deutsche Bank introduced sophisticated investment products into the Islamic finance market for the first time. These included single-platform structured investment products, treasury management and hedging instruments, as well as a full range of corporate financing and capital markets services such as cross-border leveraged acquisitions, and hybrid/non-vanilla benchmark-size international debt capital markets¹².

The Doomsday Fatwa and the Great Vampire Squid

My team at Deutsche created a new market, developing techniques previously unseen. For two years, we had 100% market share in many products with zero competition. Other international investment banks followed suit, hiring staff who were not only technically capable but also buyers of the product they were to manufacture. By and large, this new breed of Muslim banker believed Islamic finance was a force for good, servicing a wholesome real economy and upholding the *maqāsid al-shari‘a* (objectives of sharī‘ah).

But it was our invention of the double- *wa‘d* total return swap, a black box technique designed to replicate the return of any financial instrument in an apparently sharī‘ah compliant format, that was to spoil the party: the double-*wa‘d* became our Manhattan Project. With this technique, we split the atom, but the power unleashed was liable to abuse. And indeed, it was abused by an aggressive investment banking sales culture resulting in the replication of, for example, credit default swaps on Greek sovereign debt¹³: like an arsonist insuring his neighbour's house, then setting fire to it.

An ugly public spat developed between Sheikh Hussain Hamed Hassan, the chairman of Deutsche's sharī‘ah board, and Sheikh Yusuf DeLorenzo. Sheikh Yusuf decried what he

¹² Harris Irfan, *Heaven's Bankers: Inside the Hidden World of Islamic Finance* (Constable, 2014).

¹³ Ibid.

termed the Doomsday Fatwa in an open letter to the senior scholar¹⁴. Whilst Sheikh Hussein could not be held responsible for the actions of bad actors, nevertheless the parallels with other historical attempts to circumvent religious law (such as the *contractum trinius versus tawarruq*¹⁵) were clear.

Goldman Sachs, too, courted their own Islamic finance controversy by failing to consider the spirit of the law as an essential element of the structuring process. In 2011, I was asked to help them structure a benchmark-sized *sukuk* and they were insistent on a deliberately opaque structure and process. The use of commodity murabaha for “general corporate purposes” should have been two immediate red flags, but they were undeterred after I declined to help. The *sukuk* failed to launch and they were eventually forced to return to the market with an alternative structure¹⁶.

Case Study: The Failure of British Islamic Banks

Halfway into a lecture on Islamic finance and crypto, I have so far barely mentioned crypto. This is deliberate: before we can talk about alternative monetary and financial systems, we must understand where we are today.

The British Islamic banking industry is a perfect case study in how not to implement Islamic finance. All five CEOs of the five Islamic banks in the UK are non-Muslim, conventional bankers¹⁷. Their personal wealth is largely conventional, they have no cultural affinity with the customers they serve, and they hire and promote people in their own mould. In March 2022, some 17 years after its formation, one of these banks announced the appointment of its first board member to wear *hijāb* (or, according to one source, the first female board member). She was in the role only eight months.

That's not to say the CEO of an Islamic bank must be Muslim. Of course not. But at the very least, make the effort to understand the nuts and bolts of creating Islamic financial products. Conventional bankers do not know this. Nor can cultural affinity be artificially synthesised.

The UK's Islamic banking industry has witnessed a mere 2% penetration rate of Muslim households despite a near monopoly position, resulting in £200m aggregate losses over 15 years¹⁸. The lack of appropriate expertise amongst senior managers is directly pertinent to a study of the performance and culture of these banks.

Podolny and Hansen wrote the following about Apple in the Harvard Business Review: "Apple is not a company where general managers oversee managers; rather, it is a company where experts lead experts." Apple's success was directly attributable to

¹⁴ Yusuf Talal DeLorenzo, *The Total Returns Swap and the “Shariah Conversion Technology” Stratagem*, (unpublished).

¹⁵ Tarek Diwany (n 5), but see also Safdar Alam, *Islamic Banking in Practice* (Fidens Press, 2019) and other publications.

¹⁶ Harris Irfan (n 11).

¹⁷ As at the date of the lecture.

¹⁸ Calculated from the financial statements of UK Islamic banks from 2005 to 2020 and also Mohammed Amin, ‘A Snapshot of the UK Islamic Banking Scene in 2021’ (30 July 2021) <https://www.mohammedamin.com/Islamic_finance/UK-Islamic-banking-scene-2021.html>.

obliterating a culture of mediocre “general managers” and instead hiring leaders who were experts first and foremost, immersed in product details and willing to question and debate. “It’s easier to train an expert to manage well than to train a manager to be an expert.... It’s like joining a sports team where you get to learn from and play with the best.”¹⁹

In contrast, the job description for the recently advertised position of CEO at one of the UK Islamic banks prioritised above all else the need for an existing strong relationship with the regulator – rather like choosing the captain of the football team on the basis of his relationship with the referee, and not on how well he plays football.

The industry’s problems do not merely result from lack of technical knowhow. Culture is also an issue: a high-profile employment case was brought against one of the banks, resulting in a positive outcome for the Muslim claimant against whom there was evidence of Islamophobia. That was a case in the public domain; privately I have discussed many other examples with shop-floor employees that were brushed off as “not worth the stigma of fighting”. Many shareholders and customers would also be appalled to hear of alcohol being served at corporate events.

The tone starts at the top: a combination of fractional reserve debt-based banking products and a culture that fails to differentiate itself from conventional banks has permeated Islamic banks. Customers have accordingly voted with their feet. This is in stark contrast to the Deutsche days when young, technically excellent, ideologically aligned, culturally attuned Muslims understood the principles of the Islamic economic model, attempted (at least) to implement this model and – importantly - bought their own product. The result was a period of high profitability because the manufacturer knew what the customer wanted.

Today, Islamic banks are mistrusted by the community they are supposed to serve. I contend that the ownership and management of the Islamic finance industry must be in the hands of those who care about the *maqāsid al-shari‘ah* and are themselves, customers.

Islamic FinTech

Disillusioned with the incumbents, and unable to find solutions to their own financial problems, young, entrepreneurial Muslims are setting up their own non-bank fintech intermediaries. For some, there is a deliberate ideological move away from the fractional reserve model. For others, particularly those fintech set up by former bankers, there is replication in a smaller format.

In both cases, a grassroots Islamic economy is turning away from traditional banks. Though the innovation once fostered by the international banks has largely left the IF space, entrepreneurs are now rediscovering the true potential of the *halāl* economy.

But there is a still more radical solution than simply digitising banking: going back to the roots of real economy trade via risk-sharing financial instruments on a sound money system. The *halāl* economy closest to its ideals would require an alternative monetary system and an equity- rather than debt-based approach to finance.

¹⁹ Joel M Podolny and Morten T Hansen, *How Apple is Organised for Innovation*, November-December (2020) Harvard Business Review.

The Magic Money Tree

In the interests of time, I avoid a deep dive into how fractional reserve banking leads to money creation and how quantitative easing (QE) is the ultimate expression of this, but I do urge you to read Tarek El Diwany's *The Problem With Interest*. When the banks lend you money, what they're actually doing is creating new money. When, in the 16th century, citizens stored their gold in the goldsmith's vault, the goldsmith issued receipts to be redeemed in physical gold on demand. Naturally, these receipts held value themselves and could be circulated as paper money in the wider economy. Once the goldsmith realised continual circulation of the notes meant that physical gold was hardly ever demanded, then he could simply issue more receipts than he held gold in his vault. Now there was more money in circulation without there being more physical backing in reserve. This is the essence of the fractional reserve system and describes (somewhat simplistically) the origin of the Bank of England in 1694. The system relies on trust in the ability of the bank to redeem the notes.

It does sound intuitively like a type of fraud, and indeed it is. But it's perfectly legal and, simultaneously, perfectly immoral. It does not require "proof of work", that is, energy expended to create new money (like mining gold to extract it from the ground). If you need more, just print more.

The net effect of fractional reserve banking and QE is an increase in money supply. Under QE, the central bank attempts to stimulate the economy by increasing the level of bank reserves in their accounts (recorded in a few keystrokes on a computer). Financial institutions now hold more cash which they can then choose to hold, lend or use to buy other assets, inevitably leading to a rise in asset prices (stocks, bonds, real estate and so on).

Lower interest rates caused by the purchase of bonds by the central bank during QE means consumers are incentivised to borrow more to fund purchases which further increases asset prices. As a side effect, greater consumer borrowing leads to higher time preference: we lack the patience to seek out deferred gratification and long-term gains.

The further away from the central bank's money printer one gets, the greater the gap in wages and the prices of essential goods and services. Thus, the rich get richer and the poor get poorer – this is called the Cantillon effect. Meanwhile, money devaluation incentivises institutional investors to throw money at bad projects which further exacerbates systemic instability.

Previously I mentioned the Fiat Business Model²⁰: find something to sell, borrow from the Fed at 2%, extend credit at 20%, consumers are in debt but it's fine because money loses value, "GDP number go up".

This is called capitalism but it is, in fact, fraud. We, the public, are made to feel rich because the value of our assets (houses, pensions) goes up whereas, in reality, inflation has allowed the government to extract a stealth tax from us and our purchasing power has decreased. Money creation – whether through the act of private banks extending

²⁰ Saifedean Ammous (n 9).

credit or through the central bank artificially increasing reserves – is alchemy. It leads to horrendous inequality, environmental degradation and a state of perpetual war (since governments can finance war through effectively infinite printing).

We come back to one of my original questions: does Islam and the Judeo-Christian tradition offer a socially just alternative economic model? And how does the Islamic economic model relate to crypto and specifically bitcoin?

Why Sound Money is an Islamic Concept

In 2017, I delivered a lecture at which one participant asked me what I thought of bitcoin and its suitability for an Islamic economy. I replied that I knew very little about it and asked him to explain it to me. He described a form of money that was saleable across time and space, that was truly decentralised, fungible, scarce, censorship-resistant, immutable, durable, divisible, portable, verifiable and secure. To my amazement, it struck me that it had characteristics that potentially made it superior to gold as a store of value and medium of exchange. I now believe it to be the most shari‘ah compliant form of money ever invented.

If we consider periods of human history when gold was a common global currency (Rome at its height, Byzantium, the Islamic Golden Age, the second half of the 19th century), we also find that trade was borderless and fluid, with minimal tariffs and restrictions, there were periods of political stability, and both scientific and creative progress.

A decentralised, non-fiat money with a high stock-to-flow ratio that cannot be manipulated or controlled by a small group of people is a sound money that results in a low time preference, which in turn leads to human progress. Humankind had space and time for higher pursuits. Now, instead, we live to service our debts (especially the poorer we are) because financial institutions are incentivised to lend as much cheap money as possible via the alchemy of money creation.

Can sound money reset the economy to make us better human beings? To be stewards of our planet, instead of destroyers. To encourage deferred gratification that leads to better and more sustainable long-term decision-making.

Muslims believe in a spiritual investment in the *dunya* (this world) for their *akhīra* (hereafter). This is the ultimate form of low-time preference. Bitcoin represents a worldly form of long-term *sabr* (patience), an investment in our future in the *dunya*. We are encouraged to act responsibly and dutifully in this life as caretakers of our family, our community and our planet. We train our *nafs* (ego) during Ramadan. We focus on spiritual, mental and physical health. Our minds and our bodies are a gift from Allah. We recognise that mindless consumerism and material values will not help us in the next life.

We inherently, intuitively know that GDP is a poor measure of human progress, even if we know nothing about economics.

We know that *ribā* is a disease and preventing *ribā* would prevent many evils in our society. What better way to prevent *ribā* than to require that money demonstrates proof of work: the need to expend energy to extract new money and secure the digital ledger. Proof of work does not allow for easy money creation and therefore eliminates most modern forms of *ribā* at the source.

At this point, the bitcoin critic may raise two types of FUD (fear, uncertainty and doubt): the environmental cost of proof of work and the theological argument against its use. Since both topics require some considerable analysis and time is short, I will summarise.

Environmental FUD is a key propaganda technique to discredit bitcoin. It contends that the energy usage of bitcoin is equivalent to that of a country like Malaysia or Sweden and is therefore damaging to the environment. Energy usage, however, is essential to a functioning society. Does bitcoin use more or less energy than, say, YouTube? Is YouTube essential to a functioning society? What about washer-driers? Can we save energy by replacing driers with washing lines instead? Is it desirable for us to do so?

Surely, we agree that money is useful to a functioning society. So, if bitcoin replaced fiat money (and therefore removed the energy wastage of cross-border tariffs, foreign exchange and other banking activities that consequently are made redundant), what impact does that have on overall energy usage? If a bitcoin-based financial system replaced the entire existing fiat banking system, how much does that save in energy usage?

And finally, the killer blow: since fiat money is intrinsically backed only by the threat of military violence (primarily to protect the petrodollar), how much energy do the US and its allies expend to maintain this hegemony? The answer, which thoroughly debunks environmental FUD, can be found in the works of Alden, Carter, Gladstein, Gigi, Paez, Farrington, Ammous and others²¹.

Now let us address the theological FUD.

Dogma vs. Rationale

When in the early 19th century, the Ottoman governor of Egypt, Mehmet Ali Pasha, introduced water faucets at the Mehmet Ali Mosque in Cairo, the Egyptian '*ulemā*' debated whether this new-fangled contraption was permissible in performing one's ablutions before the prayer. The only scholars who ruled this innocent fixture to be permissible were from the Hanafi school, and hence taps came to be known as *hanafiyyah* in much of the Arab world.

For centuries, the use of the printing press by Muslims in the Ottoman Empire was banned on penalty of death, perhaps partly because this form of mass communication clashed with the oral scholarly tradition of information dissemination. Whilst there has been much debate on this subject, there is some evidence that the first printing press in Istanbul allowed by Sultan Ahmet III in 1727 aroused so much suspicion from Ottoman scholars that it was subsequently shut down. Perhaps this suicidal willingness to

²¹ See for example: Lyn Alden, 'Bitcoin's Energy Usage Isn't a Problem. Here's Why' (January 2023) <<https://www.lynalden.com/bitcoin-energy/#:~:text=From%20an%20engineering%20perspective%2C%20Bitcoin's,approach%20than%20what%20bitcoin%20uses.>> ; Nic Carter, 'How Much Energy Does Bitcoin Actually Consume?' 5 May 2021 *Harvard Business Review*; Alex Gladstein, 'The Humanitarian and Environmental Case for Bitcoin', 26 May 2021 *Bitcoin Magazine*; Der Gigi, 'Bitcoin's Energy Consumption', 10 June 2018 <<https://dergigi.com/2018/06/10/bitcoin-s-energy-consumption/>>; Margot Paez, 'Bitcoin Versus the Banks: Which is Better for the Planet?' (Bitcoin Policy Institute, 23 May 2022); Allen Farrington and Anders Larson, 'Only the Strong Survive' (Podcast, n.d.) <<https://www.youtube.com/watch?v=hJmR8089UUo>>.

embrace ignorance was a contributory factor in the inevitable decline of the Ottoman Empire.

In the 19th century, the ‘ulemā’ debated the minimum distance a telegraph wire could be sited near a mosque, concerned, they reasoned, that it conveyed the voice of Satan. In the early 20th century, Deobandi scholars banned the loudspeaker. In the 1980s, South African ‘ulemā’ banned television, irrespective of its content.

Now we look back on these debates with detached amusement. Obviously, our scholars couldn’t possibly make such mistakes today. They are much more sophisticated, in touch with their flock, connected by social media, tech-savvy and scientifically aware, right? Well, not if you’ve been following the many *fatāwa* banning bitcoin. For many scholars, bitcoin represents rampant, unfettered speculation, a worthless intangible bubble, the worst excesses of modern capitalism.

I have written extensively on the topic, rebutting the claim by some scholars that bitcoin is *ḥarām*. Again, perhaps in the Q&A we may have the luxury of breaking down this topic, but as an introduction, may I refer you to my first piece on the subject in 2018, *An Open Plea to the Scholars Who Have Declared Cryptocurrency Haram*.

In it²², I address the key arguments put forward by some scholars (with rebuttals in brackets) that bitcoin:

- facilitates criminal activities (the most prevalent currency in money laundering, fraud and terrorism is in fact the US dollar);
- has no set rules, making it a void contract (fiat has an even more nebulous set of “rules” at the whim of central banks; indeed, bitcoin’s algorithm is public, transparent, immutable and readily understood);
- is not created by a government unlike paper money (in fact 97% of fiat money is created by private banks, nor does Islam require money to be backed by the state);
- is not backed by anything “real” (tangible asset-backing is not a requirement of *fiqh*, and nor is fiat backed by anything other than blind faith and the threat of violence);
- is volatile (which is not in itself a reason to declare an asset or currency *ḥarām*).

In contrast to fiat money, bitcoin is a monetary system that is inherently anti-*ribā*. You cannot create it from thin air nor expand its supply. You must expend effort to find more of it. It requires proof of work to secure and justify its existence. It doesn’t benefit those closest to the money spigot because there is no central bank. It is scarce and anti-inflationary, reducing the inequality gap. It promotes low time preference and free markets since its value cannot be manipulated by a central authority. A truly sound monetary system is a free market system, inherently Islamic, free of human manipulation, monopolies and exploitation:

“The people said: Messenger of Allah, prices have shot up, so fix prices for us. Thereupon the Messenger of Allah ﷺ said: Allah is the one Who fixes prices, Who withholds, gives

²² Harris Irfan, ‘An Open Plea to the Scholars Who Have Declared Cryptocurrency Haram’ (31 Jan 2018) <<https://islamicmarkets.com/articles/an-open-plea-to-the-scholars-who-have-declared-cryptocurrency>>.

lavishly and provides, and I hope that when I meet Allah, none of you will have any claim on me for an injustice regarding blood or property.” (Anas ibn Ma lik)

Is Bitcoin Shari'ah compliant?

We have already likened bitcoin to gold, the traditional currency of Islam (scarcity, high stock-to-flow ratio, anti-inflationary properties, decentralisation, divisibility, durability). Whilst it is not yet a common medium of exchange, its utility as currency is rapidly improving via so-called secondary layer payment protocols like Lightning Network. It has advantages over gold such as portability, speed, lower storage and transaction costs, theft resistance (if properly stored) and natural resistance against counterfeiting. It is already being used as a store of value and a medium of exchange in some parts of the world.

As we saw earlier, there is a common misconception amongst Muslims that money must have tangibility. To simply negate the existence of bitcoin is illogical. Bitcoin does “exist” since it has form in the guise of electronic digits (just as our bank balance is also a digitally stored number – does that not exist?). It can be accessed, converted and exchanged. It has legal characteristics (*taqawwum*), even though it may not yet have wide usage (*ta'mul*) or social concurrence (*istihlāh*).

There are broadly three scholarly views on bitcoin²³:

- It is neither wealth (*māl*) nor has currency attributes (*thamanīyyah*).
- It has the characteristics of wealth but not currency.
- It has both wealth and currency attributes.

Bad news sells, which is why we tend to read only about ‘ulemā’ who have declared bitcoin *harām*. However, a careful analysis of their views often reveals shocking gaps in their fundamental grasp of the modern financial and monetary system. Some more technically proficient scholars, however, have recently been more thoughtful in their commentary and are tending towards the third view that bitcoin has both wealth and currency attributes.

It is my view that bitcoin is the most Islamic form of money ever invented. It is not just *halāl* (permissible), it is positively *tayyib* (wholesome). A financial system based on sound money would return the economy to its trading roots, where the financial economy has a one-to-one relationship with the real economy. It may be a radical thought, one which requires a fundamental and perhaps messy reset of entrenched economic thought, but a financial system that cannot create new money nor issue unbacked currency without being revealed as fraudulent is a system that eliminates *ribā*, inflation and inequality. It is also a system that encourages long-term sustainable projects, high quality investment decisions and massive cost and efficiency savings.

And here we come back to Islamic finance. Today’s Islamic banks operate on a fractional reserve basis using fiat currency which is debt by design. By contrast, in an Islamic

²³ Faraz Adam, *Bitcoin: Shariah Compliant?* (Amanah Finance Consultancy, n.d.) <chrome-extension://efaidnbmnnibpcajpcglclefindmkaj/https://afinanceorg.files.wordpress.com/2017/08/research-paper-on-bitcoin-mufti-faraz-adam.pdf>.

economic system, Islamic banks would operate on a 100% reserve basis, due diligence on ventures would be thorough enough to justify long-term profitability avoiding fixed returns irrespective of performance, and where there is a direct link between the financial transaction and the underlying trade.

Since a decentralised currency cannot be manipulated by governments to devalue it and raise asset prices, thus benefiting the rich at the expense of the poor, it is a radical solution to wealth inequality. Today the people of Lebanon and Gaza are turning to bitcoin to protect against hyperinflation and external meddling²⁴. This is not a hypothetical dream of monetary utopia, this is already a reality.

For the Lebanese and Gazans, bitcoin cannot be expropriated as gold reserves once were for the American people. Gazans have no central bank and are reliant on the Israeli shekel. Their wages are suppressed and their movements restricted. For them, bitcoin is a censorship-resistant route out of dependency and towards economic freedom.

For those elsewhere living under sanctions, bitcoin is freedom money. For Afghans who starved over a bitter winter whilst the US froze \$7bn of precious reserves, bitcoin could be a life-saver. A global ideology that professes freedom as its touchstone has been demonstrably anything but: repressive fiat regimes create a society of debt slaves and dependency.

²⁴ Alex Gladstein, ‘Can Bitcoin Be Palestine’s Currency of Freedom?’ (Bitcoin Magazine, 21 September 2021).

Nowhere is this more illustrative than the work of the IMF and the World Bank. Though it is secular blasphemy to say it, the IMF is not a force for good: it represses poor countries and funnels their resources to rich creditor nations²⁵. We are supposed to believe (those priests speaking Latin again!) that a supranational central bank is a helping hand to developing countries, reducing poverty, increasing shared prosperity and promoting sustainable development. However short-term, high-interest-rate loans and local currencies that are not freely convertible result in chronic financial distress for these poor nations. Most governments turn to the quick fix of borrowing from the IMF, and the major creditors are only too happy to maintain the debt trap²⁶. Time does not permit me to elaborate and so I urge you all to read Alex Gladstein's tour de force essay on this, *Structural Adjustment*.

If the Global South no longer had to borrow in US dollars (while their own currencies lose value, causing them to pay two or three times the payment initially promised to reimburse creditors - a global Cantillon effect), then imagine bitcoin as a global money, accepted for business worldwide, where nations are financed in bitcoin and pay in bitcoin. Foreign governments can no longer demand repayment in currencies that the poor nation must earn, but the rich can simply print. If the world tended to a bitcoin standard, supranational institutions must tend towards co-investment rather than lending (because fractional reserve and *ribā* are naturally restricted by proof of work). This results in



²⁵ Alex Gladstein, 'Structural Adjustment: How the IMF and World Bank Repress Poor Countries and Funnel Their Resources to Rich Ones' (Bitcoin Magazine, 30 November 2022).

²⁶ Cheryl Payer, *The Debt Trap: The International Monetary Fund and the Third World* (Monthly Review Press, 1974).

equity financing rather than debt, linked to the profits of the real economy. One hundred per cent Islamic without the unnecessary complexity of modern Islamic banking.

You will note I have discussed bitcoin at length but not cryptocurrencies in general. This is deliberate. The two are not the same. The vast majority of the crypto world is proof of stake, centralised and often pre-mined. That makes it little different to fiat in nature. I particularly caution against the plethora of socially dubious crypto projects with "*halāl*" labels.

In addition, many governments have signalled their intentions to launch their own central bank digital currencies (CBDCs). The politics of deficit financing are so attractive to governments that they will not willingly surrender their magic money tree. CBDCs give the illusion of a new type of digital money but they are merely an extension of fiat. In fact, I believe them to be worse since they allow for greater surveillance and control, for example through social credit scoring. In contrast, the pseudonymous nature of bitcoin is one of its core appeals.

Is Bitcoin the Future of Islamic Finance?

Despite all the time and effort invested in creating the Islamic banking industry over the past sixty years, it seems non-Muslims have invented the most Shari'ah compliant economic model: by its nature, bitcoin fights fractional reserve banking and *ribā*. It encourages the Islamic values of low time preference, long-term discipline, equality, fairness and even the free market. It discourages infinite growth on a finite planet. It has the potential to replace the socially useless activities and energy waste of the conventional banking industry. It does not require the backing of military force to survive. Investments under a bitcoin standard would tend towards a real economy, risk-sharing basis, the perfect foundation on which to rebuild Islamic finance.

Our industry has been failed by the Islamic banks. There is a trust gap, a lack of representation and a lack of vision. The very basis on which they exist is antithetical to the Islamic economic model. Bitcoin is the most disruptive event in financial history and the only widely adopted innovation that aligns fully with the Islamic economic model. Perhaps it will be the solution that saves Islamic finance.



WORKSHOP REPORT
SOAS Islamic Finance Workshop
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Cryptos: Distinguishing Hype and Realities in Islamic Finance

Dr Amel Makhlof¹

Introduction

Following the global financial crisis of 2008-2009, the first decentralised cryptocurrency, bitcoin, was launched as an alternative to the existing intermediated financial system. This has led to the emergence of a decentralised financial market based on blockchain technology, i.e., the crypto-market, using financial technology (FinTech) to create a peer-to-peer (P2P) platform.

As a subset of distributed ledger technology (DLT), blockchain is a cryptographically secured database,² comprising a continuously growing list of records of transactions, called blocks, allowing the instantaneous execution of cryptocurrency transfers without the need for any trusted intermediary or central authority.³ Blockchain networks can be private⁴ (also known as permissioned) such as Hyperledger Fabric; public (also known as permissionless), such as Bitcoin, Ethereum or Dash; or semi-public (also known as hybrid or consortium blockchains), such as Quorum Blockchain.

Although blockchain's largest applications remain in the banking and finance industry, it has attracted huge interest from a wide range of sectors including healthcare, real estate, media, energy, transportation, and e-commerce. Over the years, blockchain technology has grown significantly: this has been supported by the launch of Ethereum and the

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² Muharem Kianieff, *Blockchain Technology and the Law: Opportunities and Risks*, Abingdon: Informa Law from Routledge, 2019, Chapter 2, p. 8: "To this can be added that, unlike a traditional database that is contained on a single computer, the Blockchain ledger is held by a vast collection of computers throughout the world. What this means practically speaking is that hacking the Blockchain is made more difficult since the information that a hacker is seeking is not kept in a specific location, but rather the information is diffused amongst many network participants. The added security provided by the Blockchain helps to reinforce confidence that the Blockchain represents a true reflection of a particular state of affairs."

³ *Ibid*, p. 9: "Transactions are carried out through the use of many computers that are spread out throughout the world and not in any one particular location." (...) "The community of computer owners that maintain these machines are referred to as 'nodes'."

⁴ Where permitted, nodes are allowed to participate in the network. Although members of the private blockchain are known to each other, the transaction details are private.

successful introduction of smart contracts used to reduce transaction costs and enhance security between parties.⁵

This report, seeks to reflect the debates, views, and disagreements amongst academics and practitioners in Islamic finance and law who attended the annual Islamic Finance Workshop on 16th June 2022 at SOAS University of London. Further, it considers cryptocurrencies from an Islamic standpoint and explores the challenges and prospects led by the dramatic evolution of cryptocurrencies in the Middle East and North Africa (MENA) region. Finally, this report addresses the growth of cryptocurrency in Muslim-majority jurisdictions, together with the main *shari'ah* concerns raised by its utilisation, in consideration of *fiqh al-mu'amalāt* (Islamic commercial jurisprudence), the *maqāṣid al-shari'ah* (the higher objectives and intents of Islamic law), the ongoing discussions among *shari'ah* scholars, and the controversial *fatāwá* (legal opinions) issued on cryptocurrencies.

Islam and FinTech in Islamic Finance

FinTech refers to the application of innovative technology in delivering or facilitating financial services for businesses and consumers alike through software, online banking, mobile payment applications, artificial intelligence, Internet of Things (IoT) devices, peer-to-peer payment services, blockchain applications, cryptocurrencies, smart contracts, and online dispute-resolution platforms. These are just some of the aspects of FinTech, and the list goes on.⁶

Over recent decades, its exponential growth has revolutionised the financial landscape by fostering accessibility, flexibility, transparency, and cost-efficiency of the global financial services industry. But before embarking on a discussion of its emergence across the MENA region, it would be useful to assess the compliance of FinTech with *fiqh al-mu'amalāt*.

With the emergence of the modern Islamic financial industry during the second half of the twentieth century,⁷ the MENA region has witnessed the development of Islamic

⁵ Manuel A. Gómez, “(In)fallible Smart Legal Contracts”, in Ana Mercedes Lopez Rodriguez; Michael D. Green; Maria Lubomira Kubica, *Legal challenges in the New Digital Age*, Leiden: Brill, 2021, p. 29: “The dependability of the blockchain relies on several important features that include the use of a digital signature and a tamper-proof consensus mechanism that prevent the parties from altering records or creating fake transactions. Strong smart legal contracts are designed to execute all necessary tasks needed to fulfill the terms of the agreement, thus making it unnecessary—and also technically impossible—for any third party, especially the courts, to step in to interpret or enforce its provisions.” Although smart contracts represent “an incredible development in the evolution of commerce”, the author considers that “it is unlikely that they will be a complete replacement for traditional contracts, or for all human involvement in commerce.”

⁶ Umar A. Oseni, Syed N. Ali (Eds.), *Fintech in Islamic Finance: Theory and Practice*, 1st ed.: Routledge, 2019, p. 4.

⁷ Jonathan Ercanbrack, *The law of Islamic finance in the United Kingdom: legal pluralism and financial competition*, SOAS University of London, London, 2012, 465 p. To clarify, the author points out the recent growth of Islamic finance although “many of the financial transactions from which it takes its inspiration are of ancient heritage. The revolutionary idea of reviving classical Islamic commercial law in the modern world was first put to practice at an Islamic financial project in Mit Ghamr, Egypt in the 1960s. Thereafter, the first fully-fledged Islamic commercial bank, Dubai Islamic Bank, was established in 1975”, p. 26.

finance institutions, providing innovative *shari'ah*-compliant products and services to consumers and businesses alike.

To ascertain whether FinTech is permitted or lawful (*halāl*) in Islam, the *fiqh al-mu'amalāt* is the barometer. The primary issue to be addressed by the *fuqahā'* (experts in Islamic jurisprudence) is whether a specific act or situation is *halāl* unless explicitly forbidden (*harām*) by a sound and explicit *nass*, referring either to a Quranic verse or to a clear, authentic, and unequivocal *sunnah*.⁸ There seems to be a scholarly consensus (*ijmā'*) between the *fuqahā'* that any act or situation is *halāl* until proven otherwise based on the concept of *ibāhah* (what is not forbidden is acceptable)⁹ and on several Quranic verses.¹⁰

To be considered *shari'ah*-compliant, FinTech solutions should not deal with any forbidden industry (such as alcohol or pork-related products) and should not fall foul of a series of prohibitions designed to guide Muslims in all aspects of life. One of these is the prohibition of *ribā*¹¹ which can be defined more broadly than simply interest as it literally means excess, increase or addition. It has been variously interpreted over the centuries, sometimes as usury, more often as any kind of interest. In *fiqh al-mu'amalāt*, *ribā* refers to the interest charged on any loan in any financial dealings.¹² *Shari'ah* also prohibits

⁸ The sayings and doings of Prophet Muḥammad that have been established as an exemplary model for the Islamic community and recorded in short narratives called *aḥādīth*. The Quran being the primary source of Islamic law followed by the *sunnah* as the secondary source.

⁹ Jonathan Ercanbrack, *The law of Islamic finance in the United Kingdom: legal pluralism and financial competition*, pp. 111-112: "According to Ḥanbalī jurists, an attempt to declare something forbidden on merely speculative grounds, or to impose hardship or unnecessary rigidity upon people, violates the spirit of tolerance and well-being that God wishes for His believers. The following Quranic verse is cited as proof: 'God desires for you ease, He does not desire for you difficulty'. Every people and epoch develop customary manners of business practice for which it would impose hardship were people required to provide direct textual support (*nass*) from the Quran or Sunna to vindicate the legality of every commercial exchange".

¹⁰ *Sūrah* 2, verse 29: "It is He who created for you all that is on earth. Then He rose over towards the heaven and made them seven heavens and He is the All-Knower of everything"; *sūrah* 2, verse 185: "Allah desires for you ease, He does not desire hardship for you"; *sūrah* 5, verse 87: "O you who believe! Make not unlawful the *Taiyibat* (all that is good as regards foods, things, deeds, beliefs, persons, etc.) which Allah has made lawful to you, and transgress not. Verily, Allah does not like the transgressors"; *sūrah* 7, verse 32: "Say, O Prophet, 'Who has forbidden the adornments and lawful provisions Allah has brought forth for His servants?' Say, 'They are for the enjoyment of the believers in this worldly life, but they will be exclusively theirs on the Day of Judgment. This is how We make Our revelations clear for people of knowledge.'"; *sūrah* 7, verse 33: "Say, 'My Lord has only forbidden open and secret indecencies, sinfulness, unjust aggression, associating others with Allah in worship — a practice He has never authorized — and attributing to Allah what you do not know.'"

Those verses are supported by Prophetic *aḥādīth*. For instance, on the authority of Abu Huraira, Prophet Muḥammad said: "Allah the Almighty is good and accepts only that which is good. Allah has commanded the Faithful to do that which He commanded the Messengers", and the Almighty has said: "O ye Messengers! Eat of the good things, and do right", Quran 23:51.

¹¹ *Ribā* is divided into two major categories: *ribā al-nasī'ah* refers to *ribā* by way of deferment and *ribā al-fadl* refers to *ribā* in exchange. The prohibition of *ribā* has developed gradually in successive revelations. Both simple and compound interest are forbidden under a strict application of classical Islamic law.

¹² Nabil Saleh, *Unlawful Gain and Legitimate Profit in Islamic Law – Riba, Gharar and Islamic Banking*, Cambridge: Cambridge University Press, 1986, 118 p.

games of hazard or gambling (*qimar/maysir*) in consideration of the excessive risk (*gharar*)¹³ and speculation involved.¹⁴

Based on the above-mentioned prohibitions, it can be argued that FinTech is *per se* neither *halāl* nor *harām*. As long as FinTech complies with *shari'ah* requirements and is beneficial (*maṣlahah*) to the Muslim community, it is deemed permissible. It has been confirmed by the former Secretary General of the Islamic Financial Services Board (IFSB), Jaseem Ahmed (2017) that innovations are allowed in *fīqh al-mu'āmalāt* unless they fall under an explicit prohibition.¹⁵

In recent years, numerous FinTech projects and services around the world have been certified as *shari'ah*-compliant¹⁶ such as Yielders,¹⁷ Finterra,¹⁸ HelloGold,¹⁹ Ethis,²⁰ Wahed Invest,²¹ and DDCAP Group.²² The COVID-19 pandemic has fostered digital transformation in the MENA region²³ and accelerated the shift towards the utilisation of online platforms (such as digital payment platforms, lending platforms, e-wallet platforms, and crowdfunding platforms²⁴). While Southeast Asia and the Gulf constitute the world's largest Islamic finance hubs, the United Kingdom remains one of the leading Islamic FinTech markets.²⁵

FinTech solutions in Islamic finance²⁶ have developed to become a large segment of the Islamic finance industry, providing an array of innovative services and products through

¹³ Unlike *ribā*, *gharar* is not explicitly mentioned nor defined in the Quran.

¹⁴ See notably Quran 2: 219: "They ask you about wine and gambling. Say: 'In both of them there is a great sin and (some) means of benefit for the mankind, but the sin of them is greater than their benefit'", Quran 5:91: "Satan's plan is to stir up hostility and hatred between you with intoxicants and gambling and to prevent you from remembering Allah and praying. Will you not then abstain?".

¹⁵ Umar A. Oseni, Syed N. Ali (Eds.), *Fintech in Islamic Finance: Theory and Practice*, 1st ed.: Routledge, 2019, p. 8.

¹⁶ *Ibid.*

¹⁷ UK's first Financial Conduct Authority-regulated Islamic FinTech company.

¹⁸ A blockchain FinTech platform for Islamic social finance with offices in Singapore, Malaysia, Hong Kong, India, and the United Arab Emirates.

¹⁹ HelloGold is a start-up that creates accessible gold products, founded in 2015 in Kuala Lumpur, Malaysia.

²⁰ Ethis is a FinTech, impact investment and Islamic crowdfunding leader based in Malaysia with a growing global community of funders from more than 80 countries.

²¹ Wahed is an Islamic investment platform.

²² Headquartered in London, DDCAP Group is a financial technology and systems solutions provider with global office presence in London, Dubai (DIFC), Kuala Lumpur and Bahrain.

²³ Qatar FinTech Report 2021, "Qatari FinTech Landscape & Commercial Opportunities", p. 6.

²⁴ Islamic equity crowdfunding such as Beehive in the UAE and Ethis Ventures in Southeast Asia.

²⁵ Asian Development Bank, "Islamic Fintech: Global Trend and Use Cases", IFAAS, Feb. 2023, 68 p.

²⁶ The author shares the view of Umar A. Oseni and S. Nazim Ali who do "not use the term 'Islamic Fintech', which is becoming popular among Muslim finance professionals. Although, from the branding perspective, 'Islamic Fintech' appears to be more appropriate to demonstrate the uniqueness of fintech solutions in Islamic finance, it is preferable to use the terms 'Shari'ah-compliant Fintech' or simply, 'Fintech solutions in Islamic finance'. Giving fintech the 'Islamic' label presupposes that it is truly Islamic – a feature which can only be determined upon obtaining a formal Shari'ah approval. After all, fintech is merely a means to an end and not

the use of digital channels.²⁷ This development has led to the setting up of regulatory sandboxes in MENA jurisdictions to enable digital innovation in the financial sector, while ensuring consumer protection and financial stability.

As such, June 2017 witnessed the introduction by the Central Bank of Bahrain (CBB) of the Regulatory Sandbox enabling CBB licensees, together with local and foreign firms, to experiment with their products, services, and platforms in a virtual space within a partially deregulated environment.²⁸ Following this initiative aiming to develop the local FinTech ecosystem and transition towards a digital economy, in 2021 the CBB launched the revised Regulatory Sandbox Framework to ease participation and to provide better financial services in the country.²⁹

Similarly, in November 2017, the Abu Dhabi Global Market (ADGM) announced the first Regulatory Sandbox in the MENA region, ADGM RegLab. The RegLab is designed to foster innovation within the UAE financial services market for both new market entrants and existing financial institutions.

Subsequently, in 2017, the Dubai Financial Services Authority (DFSA) established its own regulatory sandboxes. As for Saudi Arabia, the Saudi Arabia Monetary Authority (SAMA) introduced its own Regulatory Sandbox in early 2018 to become an innovative FinTech hub amongst global leaders. In 2022, SAMA amended its Regulatory Sandbox Framework to address the growing demand seen in the Saudi market by FinTechs and existing regulated firms with innovative business models and concepts.

This rise of financial technology has led to constructive debates amongst participants who discussed its compatibility with Islam and its impact on the Muslim community. There was a broad consensus that technology is permissible as long as it complies with the

the end itself; hence, it should not necessarily carry the full ‘Islamic’ label.”, Umar A. Oseni, Syed N. Ali (Eds.), *Fintech in Islamic Finance: Theory and Practice*, 1st ed.: Routledge, 2019, p. 5.

²⁷ Ho Wen Hui, Azwina W.A. Manaf, Asfarina K. Shakri, “Fintech and the Transformation of the Islamic Finance Regulatory Framework in Malaysia”, in Umar A. Oseni, M. Kabir Hassan, Rusni Hassan (Eds.), *Emerging Issues in Islamic Finance Law and Practice in Malaysia*, Bingley (UK): Emerald Publishing Limited, 2019, pp. 211-222.

²⁸ Rad El Treki, “Central Bank of Bahrain (CBB) launch Regulatory Sandbox for Fintech Firms”, *Al Tamini & Co*, : <https://www.tamimi.com/law-update-articles/central-bank-bahrain-cbb-launch-regulatory-sandbox-fintech-firms-2/> (Accessed 13 May 2023). The author points out that “the introduction of the regime positions the Kingdom of Bahrain (“Bahrain”) as only the second state within the Gulf Cooperation Council to implement such a framework”. He defines the regulatory sandbox as a “a framework and process that facilitates and encourages the development of the financial technology (“FinTech”) sector in a safe, measured and pragmatic manner. The virtual space created by such a framework provides a safe area in which FinTech businesses (both established and start-ups) can test and refine their technology based innovative products, services and platforms without being immediately burdened by the usual regulatory and financial requirements which would otherwise apply to their activities.”

²⁹ For a better understanding on the Bahraini FinTech ecosystem, see the Bahrain FinTech Ecosystem Report 2022, referring to the launch of the Bahrain FinTech Bay which incubates “impactful and scalable fintech initiatives through innovation labs, acceleration programs, curated activities, and educational opportunities.”: <https://theblockchaintest.com/uploads/resources/Bahrain%20FinTech%20bay%20-%20FinTech%20Ecosystem%20Report%20-%202022%20Feb.pdf> (Accessed 13 May 2023).

moral values of the sharī'ah. Yet, participants questioned the permissibility of crypto-asset activities which remain the most visible, though controversial, example of FinTech.³⁰

³⁰ Umar A. Oseni, Syed N. Ali (Eds.), *Fintech in Islamic Finance: Theory and Practice*, 1st ed.: Routledge, 2019, p. 4.



Cryptocurrency from the perspective of *maqāṣid al-shari‘ah* (objectives of the *shari‘ah*)

The *fiqh* is first based on the Quran, which is unanimously considered as both the primary and supreme source of Islamic law.³¹ It is then supplemented by the *sunnah*.³² The primary and secondary formal sources of Islamic law are completed by the *qiyyas* (analogical reasoning) and the *ijmā‘* (consensus of Muslim scholars) that derive validity from the Quran and the *sunnah*.³³ The theory of *uṣūl al-fiqh*, the fundamentals of Islamic jurisprudence based on the four formal sources of Islamic law in Sunni Islam, further identifies other tertiary sources such as *istihsān* (juristic preference), *maṣlahah* (commonly referring to public interest although it broadly refers to well-being, welfare and social weal³⁴) and ‘urf (custom) which may be used by the *fuqahā‘* in the absence of specific guidance from the Quran and *sunnah*.³⁵

From an Islamic perspective, financial activities should intrinsically comply with ethics and contribute to the social welfare of the *ummah*. As such, *maṣlahah* is perceived as the embodiment³⁶ of the objectives of Islamic law, known as *maqāṣid al-shari‘ah*, which consists of the preservation of the five essential elements of human welfare, namely, faith, life, posterity, intellect, and wealth or property (*māl*). One of the main objectives of Islamic finance is therefore to achieve the *maqāṣid al-shari‘ah*.³⁷ Hence, the permissibility of cryptocurrency or crypto-assets from a *shari‘ah* perspective should be assessed in light of *maqāṣid al-shari‘ah*.

In economics, it is generally acknowledged that money performs three primary functions, namely: a unit of account, a medium of exchange, and a store of value. From a *shari‘ah* standpoint, “currency needs no other utility besides being a medium of exchange.”³⁸ Although the primary sources of Islamic law do not define any characteristic or condition for a currency,³⁹ the *fuqahā‘* attempt to define money as a widespread medium of exchange on the basis of ‘urf or customary practices.⁴⁰ It is therefore not

³¹ Amel Makhlof, “The transformation of Islamic law: from classical *fiqh* to financial *fiqh*”, in Wim Decock, Vincent Sagaert (Eds.), *Islamic finance: between religious norms and legal practice*, Cambridge/Leuven: Intersentia, 2019, p. 127.

³² *Ibid*, pp. 127-128.

³³ *Ibid*, p. 128.

³⁴ Felicitas Opwis, "Maslaha in Contemporary Islamic Legal Theory", *Islamic Law and Society*, 12 No. 2, 2005, pp. 182-223.

³⁵ Ahmed Mansoor Alkhan, "The Maqāṣid al-Shari‘ah and Islamic Finance Debate: The Underlying Philosophy and Perspectives of Shari‘ah Scholars", *Arab Law Quarterly*, 2021, p. 2.

³⁶ Felicitas Opwis, "Maslaha in Contemporary Islamic Legal Theory", p. 183.

³⁷ Ahmed Mansoor Alkhan, "The Maqāṣid al-Shari‘ah and Islamic Finance Debate: The Underlying Philosophy and Perspectives of Shari‘ah Scholars", p. 3.

³⁸ Mufti Faraz Adam, Mufti Abdul Kadir Barkatulla, "Currency in Islamic law – A Shari‘ah analysis of bitcoin", in Umar A. Oseni, Syed N. Ali (Eds.), *Fintech in Islamic Finance: Theory and Practice*, 1st ed.: Routledge, 2019, p. 123.

³⁹ *Ibid*, p. 123.

⁴⁰ *Ibid*, p. 123. The authors refer to Ibn Taymiyyah who considers “that the Shari‘ah has not defined any specific condition or definition for currency and money, and has instead left it to the ‘urf (prevailing custom) and understanding of the people.”

limited to gold or silver which existed thousands of years before the Islamic revelation and still serve as mediums of exchange.⁴¹ Over time, means of payment have changed with gold and silver being “replaced by paper money, which in turn has been replaced by bank deposits. Islamic finance has been able to accommodate these changes, with Islamic banks accounting for a significant proportion of the money supply”⁴² notably in the Gulf Cooperation Council.

From an Islamic viewpoint, *māl mutaqawwam* broadly implies anything valuable, which includes tangible and intangible properties. And before assessing whether cryptocurrency could be categorised as *māl mutaqawwam* or *māl ghayr mutaqawwam* (worthless property), it is crucial to confirm the legality of intangible assets from a *shari‘ah* perspective.⁴³ This requirement is supported, notably, by the International Islamic Fiqh Academy (IIFA) ruling in Resolution No. 43 (5/5) on moral rights that “business name, corporate name, trade mark, literary production, invention or discovery, are rights belonging to their holders and have, in contemporary times, financial value which can be traded. These rights are recognized by Shariah; therefore, not permissible to violate.”⁴⁴ This ruling is confirmed by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) which states in its *shari‘ah* standard No. 42 that rights to intangible assets are “financial rights (...) whereby the owner is exclusively entitled to their output.”⁴⁵ Since rights to intangible assets are recognised as financial rights, the AAOIFI prescribes that “it is permissible to dispose of or transfer them for consideration provided that such transactions are free of *Gharar* (ambiguity), deception and fraud.”⁴⁶

In relation to the intangible nature of cryptocurrencies, participants questioned their “intrinsic economic value”, stressing this *shari‘ah* criterion for any form of currency. This subject led to controversial debates. Some participants argue that the following factors indicate that bitcoin does not possess intrinsic value including: its volatility, its use as an instrument of speculation, its lack of an underlying asset backing its value, the increase of crypto scams, and its potential use in financing illicit activities such as money laundering.

In contrast, supporters consider cryptocurrency, including bitcoin, as *māl mutaqawwam*. They highlight that a fiat currency is a government-issued currency with no intrinsic value that serves as a medium of exchange in the payment system. In addition, crypto proponents pointed out that the proportion of cryptocurrency transactions related to

⁴¹ It has been reported that camel leather was considered during the era of Khalif Umar Ibn al Khattab and given up as idea, as camels would be reduced for their leather. MRHB DeFi – Shariah Board, *Green Paper*, p. 11: “To reinforce the argument that Shariah permits anything other than gold and silver as money, some scholars argue that Umar Bin Khattab (R.A) contemplated using leather from camels as a medium of exchange . Al- Biladhuri, 1984, p. 452: ‘And Umar bin Al-Khattab said: ‘I wanted to make dirhams out of camel’s skins. So, it was said to him: then there will be no camel, then he held back [from this idea]’.”

⁴² Umar A. Oseni, Syed N. Ali (Eds.), *Fintech in Islamic Finance: Theory and Practice*, p. 35.

⁴³ For a better understanding, Said Bouheroua, Shamsiah Mohamad, Noor Suhaida Kasri, Syahida Abdullah, “Shariah issues in intangible assets”, *Shariah Journal*, Vol. 23, No. 2, 2015, pp. 287-324.

⁴⁴ IIFA, Resolution No. 43 (5/5) on moral rights.

⁴⁵ AAOIFI, *Shari‘ah Standard No. 42: Financial Rights and How They Are Exercised and Transferred*.

⁴⁶ *Ibid.*

illicit activities is limited, even in the criminal economy, when compared to standard forms of transactions.

In its resolution No. 237 (8/24) on Electronic Currencies issued on 20th November 2019, the Council of the International Islamic Fiqh Academy (IIFA) uses the term “digital and coded (encrypted) currency”⁴⁷ to define the concept of cryptocurrency or crypto-asset, which includes bitcoin, ether, and XRP. The IDB has also classified electronic currencies into three categories: (i) coins such as bitcoin, (ii) alternative currencies or altcoins such as ether and XRP, and (iii) tokens, which are tradable and exchangeable assets with goods and cryptocurrencies.

Cryptocurrencies and crypto-assets are often used interchangeably. In short, both belong to the category of intangible assets, and refer to a cryptographically secured representation of value⁴⁸ that is created, traded, and stored on a blockchain platform.

It is clear that the IIFA’s distinction differentiates between coins and altcoins (as native assets of a blockchain platform such as Bitcoin and Ethereum), and tokens which are built on a pre-existing blockchain. However, most participants attending the workshop admitted that the range of crypto-assets is diverse because they are designed and developed for multiple purposes. Thus, participants encountered challenges in terminology to distinguish the variety of cryptocurrencies or crypto-assets which incorporate stable coins, unstable coins such as bitcoin, gold or silver backed coins, utility tokens, non-fungible tokens (NFTs), governance tokens, security tokens and hybrid assets. Most recognised that gold-backed cryptocurrencies or NFTs could more easily be categorised as crypto-assets than cryptocurrencies, and their *shari’ah*-compatibility would also be less problematic should the underlying assets adhere to the *shari’ah* ruling.

Definitions vary according to whether one is coming from a legal, financial, economic, or regulatory standpoint. A cryptocurrency is therefore a generic term referring to a wide variety of crypto-assets. It is a digital representation of value that is not issued or guaranteed by a central bank or a public authority. Therefore, a case-by-case analysis was thought to be a good approach for considering the Islamic compatibility of a crypto-asset and its categorisation as currency, commodity, securities or else.

In its resolution No. 237 (8/24) on Electronic Currencies, the Council of the IIFA emphasises the complexity of providing an accurate definition of cryptocurrency which could, possibly, either be “a product, a benefit, an investment asset or digital asset,”⁴⁹ and calls for further research on that topic. Considering “the significant risks associated with this type of currencies [sic] and the instability of their transactions”⁵⁰, the IIFA does not expressly state that electronic currencies are, *per se, harām*, but recommends, instead, “pursuing research and studies on issues affecting its ruling.”⁵¹

⁴⁷ IIFA, Resolution No. 237 (8/24) on Electronic Currencies.

⁴⁸ MRHB DeFi – Shariah Board, *Green Paper*, p. 10.

⁴⁹ IIFA, Resolution No. 237 (8/24) on Electronic Currencies.

⁵⁰ *Ibid.*

⁵¹ *Ibid.*

One of the key features of a commonly accepted currency, whether a cryptocurrency or a fiat currency, is trust.⁵² This means that a cryptocurrency could be treated as *māl mutaqawwam* (valuable property) as a result of the customary practice of people ('urf).

Yet, the legal landscape displays controversial *fatāwā* issued by *fuqahā'* around the world on the legality of cryptocurrencies from a *sharī'ah* standpoint. While Turkey's Directorate of Religious Affairs, also known as the Diyanet, ruled in 2017 that it is not permissible to use digital cryptocurrencies in view of, in particular, their inherent risk of uncertainty,⁵³ in 2022 the Central Bank of the Republic of Turkey completed the first trial of its central bank digital currency (CBDC), the Digital Turkish Lira.⁵⁴ The Diyanet's view is, notably, confirmed by various *fatāwā*-issuing authorities:

- ◆ In 2017, the Grand Muftī Shawky Ibrahim Allam of Egypt's *Dār al-Iftā'*⁵⁵ prohibited any use of cryptocurrency such as trading, buying, selling, and leasing in light of the risks involved and its negative effects on the economy. This ruling was confirmed by the Egyptian Central Bank and Banking System Law No. 194 of 2020 banning all uses of cryptocurrency unless a license is granted by the Central Bank of Egypt (the CBE) to operate such activity in Egypt. Any person or entity violating the law shall be imprisoned and fined no less than one million pounds and no more than LE10 million or exposed to one of those two penalties. To date, the CBE has not issued any regulations addressing the licensing of cryptocurrency activities.
- ◆ The UAE based General Authority for Islamic Affairs and Endowments' 2018 ruling that Bitcoin or any digital currency "is not legitimate and legal, unless it meets the following criteria: that it is issued by the State and enjoys [the] guarantee and protection of the law; to reassure people, when dealing with them, to guarantee their rights and fulfill their obligations".⁵⁶
- ◆ The Syrian Council's 2019 *fatwā* ruling that dealing with cryptocurrency is *harām* due to the risks associated with it.⁵⁷
- ◆ In 2021, the Majelis Ulama Indonesia (Indonesian Ulema Council) prohibited cryptocurrencies, based on their intrinsic level of uncertainty, speculation, and harmful impact on society.⁵⁸

⁵² Mohammad Kabir Hassan, Mohammad Sydul Karim, Aishath Muneezac, "A Conventional and Sharī'ah Analysis of Bitcoin", *Arab Law Quarterly*, 2021, 35(1-2), pp. 155-189.

⁵³ Diyanet, Turkish Directorate of Religious Affairs, Resolution No. 111013, Nov. 2017: [https://kurul.diyanet.gov.tr/Karar-Mutalaa-Cevap/38212/dijital-kripto-paralarin-kullaniminin-dini-hukmuneadir-\(ruling-in-its-original-Turkish-version\)](https://kurul.diyanet.gov.tr/Karar-Mutalaa-Cevap/38212/dijital-kripto-paralarin-kullaniminin-dini-hukmuneadir-(ruling-in-its-original-Turkish-version).). (Accessed 13 May 2023).

⁵⁴ Central Bank of the Republic of Turkey, Press Release on the Use of Digital Turkish Lira, 29 Dec. 20 22.

⁵⁵ Grand Muftī Shawky Ibrahim Allam, Fatwā on cryptocurrency, Cairo, 1439/2017: <https://beta.shariasource.com/documents/4450> (ruling in its original Arabic version). (Accessed 13 May 2023).

⁵⁶ General Authority for Islamic Affairs and Endowments, Fatwā on bitcoin and other digital cryptocurrencies, Fatwā No. 88972, UAE, 1440/2018: <https://www.awqaf.gov.ae/en/Pages/FatwaDetail.aspx?did=88972> (ruling available in both original Arabic version and English). (Accessed 13th May 2023).

⁵⁷ Syrian Islamic Council, Fatwā on cryptocurrency, Syria, 1441 / 2019: <https://beta.shariasource.com/documents/4451> (ruling in its original Arabic version). (Accessed 13 May 2023).

⁵⁸ The fatwā is not available online.

- ❖ In 2021, the Palestinian Supreme Fatwa Council banned the use of bitcoin and any kind of digital currencies since they operate independently of a central authority, and are highly speculative and risky.⁵⁹

On the other hand, a number of scholars are of the view that cryptocurrencies such as bitcoin are deemed permissible until proven otherwise.⁶⁰ This view is shared by Tan Sri Dr Mohd Daud Bakar, a prominent *shari'ah* scholar chairing the Shariah Advisory Council at the Central Bank of Malaysia and the Securities Commission of Malaysia.⁶¹ In 2017, he stated that bitcoin is *shari'ah*-compliant.⁶² In particular, Tan Sri Dr Mohd Daud Bakar stresses that both fiat currencies and gold prices can be volatile, and that money needs no other utility besides being a medium of exchange – whether it is gold, silver, or otherwise – and is accepted by the community.⁶³ In addition, the *fatāwā* centre of the South African Islamic Seminary, Darul Uloom Zakariyya, stated that bitcoin fulfils the condition of *māl mutaqawwam* and is therefore permissible in principle.⁶⁴

The above-mentioned *fatāwā* confirm that *fuqahā'* are divided regarding the legality of digital assets such as bitcoin. Various North African countries such as Algeria,⁶⁵ Libya,⁶⁶ and Egypt⁶⁷ have issued an explicit ban on bitcoin and other virtual assets. Whereas Tunisia has not expressly considered the legality of bitcoin and other cryptocurrencies, Morocco seems to have developed a more positive opinion on the matter. Although an

⁵⁹ Palestinian Supreme Fatwa Council, *Fatwā* on Bitcoin and digital currencies, Palestine, 1443/2021:

<http://www.fatawah.net/Fataawah/1236.aspx> (ruling in its original Arabic version). (Accessed 13 May 2023).

⁶⁰ Farrukh Habib, "A Critical Analysis of Bitcoin from an Islamic Legal Perspective", p. 17 in Nafis Alam, Syed N. Ali (Eds.), *Fintech, Digital Currency and the Future of Islamic Finance: Strategic, Operational and Regulatory Issues within the Gulf Cooperation Council*, Basingstoke: Palgrave Macmillan, 2021.

⁶¹ For further information concerning Tan Sri Dr Mohd Daud Bakar's expertise:

<http://www.mohddaudbakar.com/index.php/about-mdb/biography> (Accessed 13 May 2023).

⁶² Tan Sri Dr Mohd Daud Bakar, Oral presentation made at the International Islamic University of Malaysia (IIUM) on 29 Nov. 2017, Kuala Lumpur – Malaysia, Report available at the following link in original Malay version: <http://www.mohddaudbakar.com/index.php/in-the-news/103-websites/141-30-isi-penting-berkenaan-hukum-bitcoin-yang-dihuraikan-oleh-pakar-kewangan-islam-antarabangsa-dr-mohd-daud-bakar> (Accessed 13 May 2023).

⁶³ *Ibid.*

⁶⁴ Mufti Muhammad Abu-Bakar, "Shariah Analysis of Bitcoin, Cryptocurrency, and Blockchain" (version 1.2.1), Blossom (online), Last Revised: Dec 6, 2019. Available at:

https://uploads-ssl.webflow.com/5fdcd636938bd7a36510d1c7/600eb8b2599275f5f45c8984_docs_3a7db65e-3ae2-407c-819c-b43164d26700_doc.pdf (Accessed 13 May 2023). The author specifies that "*to be qualified as currency, it should be approved by the relevant government authorities*". The fatwā is not available online.

⁶⁵ Loi n° 17-11 du 8 Rabie Ethani 1439 correspondant au 27 décembre 2017 portant loi de finances pour 2018, *Journal officiel de la République Algérienne n° 76*, 9 Rabie Ethani 1439 / 28 décembre 2017. Available at: <https://www.droit-afrique.com/uploads/Algerie-LF-2018.pdf> (Accessed 13 May 2023). Article 117 of the law bans the buying, selling, trading, and storing of virtual currency.

⁶⁶ In 2018, the Central Bank of Libya has declared virtual currencies, including bitcoin, illegal considering the financial risks and the lack of legal protection for those dealing with them. It also emphasised that virtual currencies could be used in illegal activities such as money laundering and financing of terrorism. Report in its original Arabic version available at: <https://cbl.gov.ly/blog/%D8%AA%D9%86%D9%88%D9%8A%D9%87-6/> (Accessed 13 May 2023).

⁶⁷ Egyptian Central Bank and Banking System Law No. 194 of 2020.

official statement issued by the Moroccan Office des Changes on 20th November 2017 explicitly declared the usage of virtual currencies illegal,⁶⁸ in 2022, the Wali of Bank Al Maghrib announced a forthcoming draft law which aimed to establish an appropriate regulatory framework regarding the use of cryptocurrencies in Morocco.

Interestingly, Gulf countries like the UAE and Qatar tend to be well-inclined towards cryptocurrencies. On 3rd September 2017, the Dubai Financial Services Authority (the DFSA) issued a “General Investor Statement on Cryptocurrencies”⁶⁹ alerting investors “to certain new and evolving online offerings” which “tend to involve the issuance of some form of virtual coin, token or other symbol of virtual currency in return for payment of a subscription price.”⁷⁰ By warning potential investors about the risks associated with cryptocurrency investments, this statement stresses that those offerings are not yet regulated in the Dubai International Financial Centre (the DIFC) and should therefore be seen as “high-risk investments.”⁷¹

The creation of a legal framework for businesses related to virtual assets, including crypto-assets and non-fungible tokens (NFTs), was introduced through Law No. 4 of 2022 on the Regulation of Virtual Assets in the Emirate of Dubai (Virtual Asset Law) issued on 11 March 2022.⁷² The Virtual Asset Law established the Dubai Virtual Assets Regulatory Authority (VARA)⁷³ which is in charge of regulating, supervising, and overseeing virtual asset services in the Emirate. As such, the law adopts a broad definition of virtual assets identified as “a digital representation of value that may be digitally traded, transferred, or used as an exchange or payment tool, or for investment purposes. This includes Virtual Tokens, and any digital representation of any other value as determined by VARA.”⁷⁴ By contrast, virtual tokens are defined as “a digital representation of a set of rights that can be digitally offered and traded through a Virtual Asset Platform.”⁷⁵

The Virtual Asset Law aims to promote the Emirate as a regional and international hub for virtual assets and to increase investor protection. This initiative follows the Abu Dhabi

⁶⁸ Office des Changes, “Communiqué – Mise au point au sujet de l’utilisation des monnaies virtuelles”, Rabat, 20 Nov. 2017. Available in French at : <https://www.oc.gov.ma/sites/default/files/2018-05/communique%CC%81%20monnaies%20virtuelles%20fr.pdf> (Accessed 13 May 2023). See also Ministry of Economics and Finance, Bank Al-Maghrib, Capital Market Authority, “Communiqué de presse conjoint du Ministère de l’économie et des finances, de Bank Al Maghrib et de l’Autorité Marocaine du Marché des Capitaux sur l’usage des monnaies virtuelles”, *Press Report*, Rabat, 21 Nov. 2017, available in French at : [https://www.ammc.ma/sites/default/files/commrique%20monnaies%20virtuelles%20FR_0.pdf](https://www.ammc.ma/sites/default/files/communique%20monnaies%20virtuelles%20FR_0.pdf) (Accessed 13 May 2023). This position is confirmed by the recent decision of the Moroccan Court of cassation (Decision No. 3/462 of 24th March 2021, Case No. 6/3/2020/1879).

⁶⁹ DFSA, “DFSA Issues General Investor Statement on Cryptocurrencies”, 13 Sept. 2017. Available at: <https://www.dfsa.ae/news/dfsas-general-investor-statement-cryptocurrencies> (Accessed 13 May 2023).

⁷⁰ *Ibid.*

⁷¹ *Ibid.*

⁷² Virtual Asset Law available at: [https://dlp.dubai.gov.ae/Legislation%20Reference/2022/Law%20No.%20\(4\)%20of%202022%20Regulating%20Virtual%20Assets.html](https://dlp.dubai.gov.ae/Legislation%20Reference/2022/Law%20No.%20(4)%20of%202022%20Regulating%20Virtual%20Assets.html) (Accessed 13 May 2023). This Law applies to the virtual asset services provided in all of the economic free zones across the Emirate with the exception of the DIFC.

⁷³ VARA will be affiliated to the Dubai World Trade Centre Authority (art. 4).

⁷⁴ Art. 2.

⁷⁵ *Ibid.*

Global Market's (ADGM) February 2020 Guidance on the Regulation of Digital Securities Activities issued by the Financial Services Regulatory Authority (FSRA) of ADGM,⁷⁶ following the implementation of ADGM's Crypto Asset Regulatory Framework in June 2018.⁷⁷

On 12 December 2022, the UAE Government issued Cabinet Resolution No. 111 of 2022 on the Regulation of Virtual Assets and their Service Providers.⁷⁸ The Resolution strengthens the UAE's regulatory framework for virtual asset activities and service providers, ensures compliance with the current UAE anti-money laundering legislation, reinforces the investment attractiveness of the UAE, and protects investors in virtual assets from illegal practices. In addition, on 23 March 2023, the Central Bank of UAE (CBUAE) implemented the CBUAE Central Bank Digital Currency Strategy, one of the nine initiatives of the CBUAE's Financial Infrastructure Transformation Programme.⁷⁹ According to the UAE, the "CBDC is a risk-free form of digital money issued and guaranteed by the central bank and serves as a secure, cost-effective and efficient form of payment and a store of value."⁸⁰

These initiatives reflect the UAE's ambition to embrace advanced digital solutions such as crypto-assets and blockchain to stimulate international trading, to attract investments, to encourage companies operating in the field of crypto-assets to base their business in the UAE, to enhance financial inclusion, to promote digital payments and to move towards a cashless society.

As for Qatar, its position towards virtual assets has evolved over the recent years. Under Circular No. 6 of 2018 relating to trading in bitcoin⁸¹ and Circular No. 46 of 2019

⁷⁶ Guidance on Regulation of Digital Securities activities in ADGM, 24 Feb. 2020:

<https://www.adgm.com/documents/legal-framework/guidance-and-policy/fsra/guidance-on-regulation-of-digital-securities-activities-in-adgm.pdf> (Accessed 13 May 2023).

⁷⁷ See also FSRA, "Guiding Principles for the Financial Services Regulatory Authority's Approach to Virtual Asset Regulation and Supervision", Sept. 2022. Available at: <https://www.adgm.com/documents/legal-framework/guidance-and-policy/fsra/fsra-guiding-principles-for-virtual-assets-regulation-and-supervision-ia-202209012.pdf> (Accessed 13 May 2023).

⁷⁸ UAE Cabinet, Resolution No. (111) of 2022 Concerning the Regulation of Virtual Assets and their Service Providers, 12 Dec. 2022. Available at: <https://amluae.com/wp-content/uploads/2023/01/Cabinet-Resolution-No.-111-of-2022-Concerning-the-Regulation-of-Virtual-Assets-and-their-Service-Providers-1.pdf> (Accessed 13 May 2023). Pursuant to article 18, the resolution comes into force thirty (30) days from the date of its publication in the Official Gazette, which was 15 December 2022.

⁷⁹ CBUAE, "CBUAE launches the Central Bank Digital Currency Strategy 'The Digital Dirham'", 23 March 2023: <https://www.centralbank.ae/media/q5nlldmr/cbuae-launches-the-central-bank-digital-currency-strategy-the-digital-dirham-en.pdf> (Accessed 13 May 2023).

⁸⁰ *Ibid.*

⁸¹ QCB Circular No. 6/2018 relating to trading in bitcoins, 7 Feb. 2018. Available in English version at: <http://www.qcb.gov.qa/sitelists/CircularsToBanks/Lists/Circulars/Attachments/173/Circular%20no.%206-2018.pdf> (Accessed 13 May 2023). Circular No. 6/2018 expressly states that trading in bitcoin is illegal and "involves high risks such as major value fluctuation (volatility), risk of being used in financial crimes or cybercrimes. In addition, the risk of losing its value due to absence of grantor or underlying assets." It further releases that "QCB shall impose penalties in accordance to the provisions of the Law of the Qatar Central Bank and the Regulation of Financial Institutions 'Law no (13) of 2012' in case of any violations of the above mentioned instructions."

relating to Virtual Assets and Virtual Assets Service Providers,⁸² the Qatar Central Bank (QCB) initially warned all banks operating in Qatar against trading of, or dealing in, virtual assets with any unlicensed financial institutions or virtual assets service providers. Yet, in April 2022, the Communications Regulatory Authority (CRA) published, in collaboration with Hamad Bin Khalifa University and Qatar University, a wide consultation regarding the “National Blockchain Blueprint For Qatar”⁸³ underlining “how the blockchain technology can contribute to building an innovative and growing IT sector in Qatar increasing domestic and foreign investment.”⁸⁴ The blueprint aims to establish an efficient regulatory framework that would ensure investors’ protection and facilitate the adoption of blockchain technology. In addition, the QCB is currently considering the launch of a CBDC.⁸⁵

The aforementioned legislations and *fatāwá* reflect the existing controversy in the crypto-assets industry. It is very unlikely that *shari‘ah* scholars will soon reach a consensus on any particular cryptocurrency or crypto-asset issue. Such a situation raises concerns as to *fatāwá*-shopping opportunities and their legal implications in the Islamic finance industry.⁸⁶

It is also worth mentioning that the essence of the ban of crypto assets may well-reflect the inherent fear, misunderstanding and confusion behind this digital representation of value. As already stated, some of the *fatāwá* issued on cryptocurrencies “are not based on juristic objectivity and are biased towards unauthentic news and misconceptions. For instance, some *fatwas* express that Bitcoin is only used in illegal activities, or it is used by money launderers. This argument is not based on correct facts.”⁸⁷ Whereas the Algerian law has issued a ban on bitcoin and other cryptocurrencies with no specific ruling behind this prohibition,⁸⁸ the reasoning behind the Libyan prohibition is that cryptocurrencies

⁸² QCB Circular No. 46/2019 relating to Virtual Assets and Virtual Assets Service Providers, 24 Dec. 2019.

Available at:

<http://www.qcb.gov.qa/sitelists/CircularsToBanks/Lists/Circulars/Attachments/209/Circular%20no.%2046-2019.pdf> (Accessed 13 May 2023). According to QCB Circular No. 46/2019, “any natural or legal person in the State of Qatar shall not be granted a license to provide Virtual Asset Services and Virtual Currency Services as commercial business for his benefit or on behalf of others.”

⁸³ National Blockchain Blueprint For Qatar, April 2022. Available at:

file:///C:/Users/darty/Downloads/CRA%20National%20Blockchain%20Blueprint_EN.pdf (Accessed 13 May 2023).

⁸⁴ *Ibid*, p. 7.

⁸⁵ “Qatar Central Bank working to issue digital currency: Governor”, *The Peninsula*, 22 June 2022. Available at: <https://thepeninsulaqatar.com/article/22/06/2022/qatar-central-bank-working-to-issue-digital-currency-governor> (Accessed 13 May 2023).

⁸⁶ Umar A. Oseni, Abu Umar Faruq Ahmad, Mohammad Kabir Hassan, “The Legal Implications of ‘Fatwā Shopping’ in the Islamic Finance Industry: Problems, Perceptions and Prospects”, *Arab Law Quarterly*, 2016, 30 (2), 107–137. According to the authors, *fatāwá* shopping “is a methodical process of finding the right *fatwā* or formal legal opinion that fits one’s individual or collective needs. The advice often given to the layman and a new learner is to stick to adopt a trustworthy source of knowledge when seeking advice or legal opinions. [...] The aim of the person is not to find the opinion that is the most reliable or the most in line with what the Prophet might have responded but rather the opinion which suits the preconceived belief or proposal”. See pp. 119–120.

⁸⁷ Farrukh Habib, “A Critical Analysis of Bitcoin from an Islamic Legal Perspective”, pp. 16–17.

⁸⁸ Notably, no reference to Islamic law.

involve consumer protection issues and could be used for money laundering and financing of terrorism. Those prohibitions reflect more of a fear of cryptocurrencies than an inherent incompatibility with Islamic law.

As for the distinction between money and commodities from a *shari'ah* standpoint, Mufti Muhammad Taqi Usmani stated that money and commodities have different characteristics and should therefore be treated differently.⁸⁹ According to Usmani:

"The basic points of difference between money and commodity are as follows: (a) Money has no intrinsic utility. [...] A commodity, on the other hand, has intrinsic utility and can be utilized directly without exchanging it for some other thing. (b) The commodities can be of different qualities while money has no quality except that it is a measure of value or a medium of exchange. [...] (c) In commodities, the transactions of sale and purchase are affected on an identified particular commodity. [...] Money, on the contrary, cannot be pinpointed in a transaction of exchange."⁹⁰ In addition, Mufti Usmani states that money "is not held to be the subject-matter of trade, like other commodities. Its use has been restricted to its basic purpose i.e. to act as a medium of exchange and a measure of value".⁹¹

Several participants shared Mufti Usmani's view that money is a medium of exchange rather than a commodity. The workshop discussion revealed that many participants recognise that currency in Islam requires "no other utility besides being a medium of exchange."⁹² In addition, the "Qur'an and Sunnah only refer to the prevalent money in circulation at the time of revelation: dinar and dirham. At the time of revelation, the bimetallic currency was in use. In fact, the two verses of the Qur'an (3:75 and 12:20) show that the previous nations also used dirhams or silver coins."⁹³ Furthermore, all the developments in that field "during successive Islamic empires support the view that Islam has not defined currency; instead, it has left it to people to decide their currency."⁹⁴

Interestingly, bitcoin was specifically created as a medium of exchange and appears to fulfil the criteria of money rather than those of a commodity.⁹⁵ The exponential growth in the acceptance of bitcoin as a medium of payment⁹⁶ might be counterbalanced by people's reluctance to use it as a medium of exchange due to its volatility.⁹⁷ In addition, even market participants seem to use it as an investment tool rather than currency.⁹⁸ As for the attributes of currencies such as the unit of account and store of value, it might

⁸⁹ Justice Maulana Muhammad Taqi Usmani, *The Historic Judgment on Interest delivered in the Supreme Court of Pakistan*, Idaratul – Ma'arif, Karachi (Pakistan), 2000, p. 74.

⁹⁰ *Ibid*, pp. 74-75.

⁹¹ *Ibid*, p. 75.

⁹² Umar A. Oseni, Syed N. Ali (Eds.), *Fintech in Islamic Finance: Theory and Practice*, p. 123.

⁹³ *Ibid*, pp. 123-124.

⁹⁴ *Ibid*, p. 124.

⁹⁵ Farrukh Habib, "A Critical Analysis of Bitcoin from an Islamic Legal Perspective", pp. 24 -25.

⁹⁶ *Ibid*, p. 24.

⁹⁷ Mohammad Kabir Hassan, Mohammad Sydul Karim, Aishath Muneezac, "A Conventional and Sharī'ah Analysis of Bitcoin", p. 171.

⁹⁸ *Ibid*.

be premature “to expect Bitcoin to have such attributes.”⁹⁹ While crypto proponents view bitcoin as a unit of account, arguing that it can be represented up to eight decimal places, detractors disagree based on its high volatility. By contrast, some participants argue that in certain countries some use cryptocurrency, including bitcoin, as a store of value against volatile or depreciating local fiat currencies. Due to its large price fluctuations, opponents of bitcoin’s *shari’ah*-compatibility believe that bitcoin is not a reasonably stable store of value.

Despite contrasting opinions about the *shari’ah*-compatibility of crypto-assets, their emergence raises critical questions as to how disputes emanating from such transactions can be resolved. In countries where crypto-assets are legal,¹⁰⁰ arbitration, notably through online dispute-resolution (ODR) platforms, could be a suitable dispute resolution mechanism for crypto disputes¹⁰¹ considering their cross-jurisdictional nature. The recent tendency of arbitral institutions to introduce expedited and emergency



⁹⁹ Farrukh Habib, “A Critical Analysis of Bitcoin from an Islamic Legal Perspective”, p. 24.

¹⁰⁰ If an arbitration in cryptocurrency disputes is seated in such a jurisdiction where cryptocurrency is illegal, or enforcement of an award is sought there, national courts may rule that crypto-disputes are not arbitrable and deny enforcement of an arbitral award on public policy grounds. This might currently be the case in Algeria, Libya, and Egypt.

¹⁰¹ For instance, Nifty Gateway specifies the Judicial Arbitration and Mediation Services (JAMS) rules. The JAMS is the first institutional alternative dispute resolution (ADR) provider to create protocols supporting the use of ADR in disputes arising from blockchain activities, including smart contracts.

procedures, which should improve procedural economy and prevent dissipation of cryptocurrencies until the issuance of a final arbitral award, proves that arbitration has many benefits as a way of resolving disputes arising from crypto assets.

COMMENTARIES SUMMARY
SOAS Islamic Finance Workshop
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Cryptos: Distinguishing Hype and Realities in Islamic Finance

Dr Fares Djafri¹

Introduction

According to the Financial Stability Board's recent study, crypto-asset market capitalisation grew 3.5 times in 2021 to USD2.6 trillion. Still, the market remains a small portion of the overall global financial system, and direct connections between crypto assets and systemically important financial institutions and core financial markets are limited at the present time. The market, according to the European Central Bank, represents less than 1% of the global financial system in terms of size, but it is still similar in size to, for example, the securitised sub-prime mortgage markets that triggered the global financial crisis of 2007-2008. However, most central banks perceive the use of cryptocurrencies for payments to be trivial or limited to niche groups and not widely used in critical financial services (including payments) on which the real economy depends. Besides, the different incidences of price volatility in cryptocurrency markets have, so far, been contained within crypto-asset markets and have not spilled over to other financial markets and infrastructures.

This report—which is based on the notes and commentaries shared by the participants of the workshop “Cryptos: Distinguishing Hype and Realities in Islamic Finance”, held at SOAS, University of London on 16th June 2022—discusses the above-mentioned topic in some detail. Although the full commentaries are extremely valuable and beneficial, this ‘summary of commentaries’ aims to discuss the most crucial concerns regarding cryptos that the world faces today. The report gives some insights regarding the crypto-asset industry and sheds light on some legal and shari‘ah issues that can arise in cryptocurrencies. To serve this purpose, this report is a brief compilation, with selective editing, of the notes and commentaries shared by individuals prior to the workshop. A list of contributors is placed at the end of this report.

The report is divided into four sections: the first section provides an overview of cryptocurrencies and the relationship between Islamic finance and crypto assets. The second section discusses the legal and technical issues in cryptocurrency, while the third section deliberates stablecoins and central bank digital currencies (CBDCs). The fourth section reports the shari‘ah ruling on cryptocurrencies and the way forward.

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Cryptocurrencies: An Overview

Crypto assets and cryptocurrencies are becoming an increasingly pervasive aspect of financial activity. They are considered an innovative virtual form of money that is different from a traditional form of money. Crypto assets can be classified into three types: cryptocurrencies, or payment/exchange tokens, that are used as a means of value exchange; utility tokens that grants access to a digital product, service or platform; and security tokens representing an investment instrument.

One of the most significant characteristics of cryptocurrencies such as Bitcoin is decentralisation, which means that no government or private entity supervises their issuance. Likewise, cryptocurrencies are characterized by being encrypted and having no tangible physical existence or presence. Transactions involving them might entail trading between parties without intermediaries, which is known as a peer-to-peer system. Most cryptocurrencies exist and function on blockchain technology. Blockchain is a decentralized digital ledger technology which operates without the need for a central authority or third party. More specifically, blockchain is a computer protocol that tracks and records data using a distributed digital ledger system. The importance of this technology is evident in the fact that it allows many participants of the same network (the so-called nodes) to store and verify information/data on a single shared ledger so that everyone can see the same data.



Unlike fiat currencies, no central public authority issues cryptocurrencies, and their quantity and value are beyond the purview and control of the state. Instead, they are based on the interactions of decentralised actors and on technologies such as cryptography, which ensures their security, and blockchain, which prevents counterfeit and fraud.

Cryptocurrencies need to be distinguished from digital or electronic currencies, known also as electronic money (e-money). While the latter is an electronic representation of existing fiat currency, the former is an alternative currency that is supported by cryptography and blockchain. In other words, e-money is issued through authorized financial institutions and represents the nominal value of banknotes in a different form, whereas cryptocurrencies can be issued by anonymous individuals or groups that are independent of the state's authority. The Sharī 'ah Advisory Council (SAC) of Bank Negara Malaysia at its 201st meeting and 26th special meeting on 29 January and 30 January 2020 has made a ruling that: "electronic money (e-money) is a permissible payment instrument under sharī 'ah, provided that the e-money is structured based on appropriate sharī 'ah contract(s) to preserve the rights and obligations of the contracting parties".

It is worth noting that transactions in crypto assets would not have taken off unless there were perceived advantages over other tradable assets. Their success was due to clever exploitation of new technologies which had clear advantages over the traditional bundled assets in financial portfolios. The aim of the instigators was not to replace managed funds but, rather, to propose digital alternatives that had much lower transaction costs. In other words, crypto assets are not quoted in national currencies but in their own unit of account everywhere; thus, the need for exchange rate transfers is eliminated. The second advantage is that data from crypto transactions, including orders and transaction notifications, are encrypted. This converts the original information into ciphertext which only authorised users can read. As a result, the scope for fraudulent activities is drastically reduced. In addition, a third safeguard, blockchain, prevents unwanted entry or access. This refers to a global network of computers which possess all the data or transactions pertaining to a particular block. In other words, because full records have been retained, any abuse of the system by unauthorised parties can be quickly traced and appropriate action taken. This ensures transaction security with electronic records always available.

Islamic Finance and Crypto Assets

Islamic finance and crypto assets have little in common. To elaborate, Islamic finance involves risk sharing, the aim being to encourage and facilitate social assistance with a stress on mutual endeavour. Islamic finance is socially centred, whereas the placement of crypto funds is self-centred, with each investor on their own. Ironically, despite the goal being to reduce risk, crypto is much more risky than Islamic finance. Risk avoidance and mitigating risk are standard features of Islamic finance, often through teamwork. In contrast with crypto assets there is no collective endeavour; rather, there is concern that rivals could damage one's own financial returns and business prospects.

Islamic finance offers a wide range of products, catering for both families and investment in small and medium-sized enterprises (SMEs). Most Islamic finance is provided by Islamic banks, which although sharī 'ah compliant, is organised on the basic model of conventional banks. In contrast, crypto assets are usually acquired through exchanges, which have more in common with stock or commodity exchanges.

Islamic financial institutions make considerable efforts to build client relationships which can last over decades. In contrast, the buying and selling of crypto assets is largely transactional, with clients searching for the best bargains. There is no loyalty to a particular exchange; these only cater for transaction orders and do not provide client advice.

In Islamic finance, investors take an interest in how and where their funds are invested. The how refers to the investment vehicle such as an Islamic equity fund or a *sukuk*, which is similar to a bond in its fixed-income nature but links to a specified asset. Such disclosure is helpful to investors seeking to share risk. In contrast, purchasers of crypto assets have little interest in what the assets represent and what is actually being financed. The assets may be designated currencies, whose price reflects macroeconomic conditions but not company-level microeconomic data. Such investments are not viewed as productive, the main gain being the liquidity provided to the market for the assets. It should be stressed that there is no inherent immorality in cryptocurrencies; rather, the concern is with high-risk practices in very speculative markets. Speculation is the driver, and it becomes the dominant market force.

Legal and Technical Issues in Cryptocurrency

The basic premise that cryptocurrencies are money can be questioned. While cryptocurrencies such as Bitcoin can be used for transactions, their general use in the wider economy is very limited. A key feature of cryptocurrencies is the high volatility of their prices, which makes it difficult to use them to store value and to measure the value of other things. Given the price volatility and relatively higher transaction costs relative to fiat currencies, cryptocurrencies fail to perform the functions of money, which are: unit of account, medium of exchange, and store of value. There are several legal and technical issues involved in dealing with cryptocurrencies. The most important of them are:

- ❖ **Hacks and Cybersecurity Issues:** The virtual system is still prone to attack and the possibility of tampering. Hacking and cybersecurity threats are not new to the digital world; however, their occurrence may be more frequent in the crypto space because this space is still in its infancy. Consequently, the use of cryptocurrencies (e.g., Bitcoin) as an alternative to the existing monetary system may not be secure as they are not asset backed.
- ❖ **Legal Risk:** Most cryptocurrencies are not considered as legal tender that an authority like a government supervises the issuance of. Without legal recognition of cryptocurrencies and the patronage of official authorities, they will be exposed to the harsh volatility of market price fluctuations.

- ❖ **Tax Evasion Risk:** The exchange of goods and services through virtual platforms using Bitcoin make it susceptible to the risk of tax evasion as there is no room for oversight by the relevant authority.
- ❖ **Consumer Risk:** The decentralized nature of cryptocurrencies and the instability of the market price may harm the consumer. Cryptocurrencies' high volatility makes trading in them highly risky, rendering investments in them a gambling-like business, which raises a sharī 'ah issue. The high fluctuation of market value can result in cryptocurrencies losing purchasing power and, thus, exposes consumers to the inability to retain the value of money and store wealth.
- ❖ **Black Market and Illegal Transactions:** The crypto-asset industry is one of the largest unregulated markets in the world. Some research finds that, as of 2018, approximately one-quarter of users were involved in illegal activities in this space.
- ❖ **Market Competition for Islamic Finance:** As a P2P decentralized system, crypto assets have posed a challenge to financial intermediaries. Should Islamic financial institutions consider this seriously? Many large banks have already started offering crypto products and related services to their clients, realising that they cannot win the war against it. How should Islamic banks seize this opportunity



and remain competitive? What would be the ultimate economic impact of this phenomenon on the OIC countries?

- ◆ **Regulatory Risk:** The absence of effective supervision and regulatory frameworks can create regulatory arbitrage and curtail enforcement. Changing the Bitcoin protocols requires consensus among miners rather than a monetary authority that makes policy.
- ◆ **Electricity Consumption and Environmental Impact:** The cryptocurrency mining industry has serious environmental ramifications due to the energy-intensive process through which coins are created. Cryptocurrencies require large amounts of energy—more than is used by entire countries in order to perform the computations associated with crypto mining.²
- ◆ **Shari‘ah Screening Criteria:** Since there are various types of crypto assets, screening crypto assets for shari‘ah compliance before investing is essential. In fact, cryptocurrencies still do not possess the necessary shari‘ah characteristics of a valid currency, and the high risks associated with their trading give them a gambling nature. It is only if those issues are resolved that the shari‘ah may recognize them as valid currencies, similar to what fiqh scholars did for paper (fiat) money.

Stablecoins and Central Bank Digital Currencies (CBDCs)

As discussed above, cryptocurrencies are characterized by high price volatility, which makes them incapable of performing the three functions of money. Although the aggregate market value of cryptocurrencies now exceeds USD 2 trillion, extreme price volatility, strong price correlation to Bitcoin, and often slow transaction confirmation times have impeded their utility as a practical means of value exchange. Consequently, stablecoins have been introduced as an attempt to overcome the volatility problem and to address these shortcomings by pegging their value to a unit of an underlying asset, often issued on blockchains, and backing the coins wholly or partially with state-issued tender (such as the dollar, pound, or euro), highly liquid reserves (like government treasuries), or commodities such as precious metals.

It worth mentioning that the Bank for International Settlements (BIS) conducted a survey in which central banks were asked about their perception of the future potential of different types of stablecoin. The finding of the survey shows that stablecoins pegged to and backed by a single currency are perceived as having the highest potential to become a widely accepted and used method of payment. Some stablecoins are fully backed by legal-tender money to which they are pegged, whereas others are only partially or fractionally backed by legal-tender money or equivalent liquid assets. To demonstrate, there are two competing forms of private stablecoins: stable coins backed by a reserve pool of assets, and algorithmic stablecoins. In a reserve dollar stablecoin, the dollar

² This raises questions on the adverse impact that cryptocurrencies can have on the environment. While some argue that the electricity used in cryptocurrency mining can be sourced from green sources, it remains unethical to use such a large quantity of electricity when large segments of the population in the developing countries do not have access to electricity. From a *maqāsid* perspective, the use of resources to mine an unproductive asset and potential adverse impact on environment raise questions related to preservation and justice.

proceeds from a newly-issued stablecoin are used to purchase an equivalent value of high-quality, short-term, liquid dollar-denominated assets held by the stablecoin sponsor as a “reserve.” There are also private dollar-linked stablecoins that hold cryptocurrencies as their reserve assets. These stablecoins need to maintain a reserve pool of cryptocurrencies that have a greater market value than the dollar value of stablecoins sold. Over-collateralisation of the reserve pool is necessary because cryptocurrencies like Bitcoin have a dollar value that fluctuates daily, sometimes by large amounts. It is presumed that a stablecoin fully backed by cash and short-term treasury securities should be immune from run risk as long as treasury securities retain their safe-asset status. Stablecoins will address problems related to plain vanilla cryptocurrencies such as volatility, lack of government supervision, and authorisation as legal tender.

It should be noted that some of the efforts to create CBDCs³ have been born out of reservations about the impact of privately issued stablecoins on financial stability and traditional monetary policy, and with the goal of improving access to central bank money for private citizens, creating greater financial inclusion and reducing payments inefficiency. Thus, many see the current development of CBDCs as a response to the challenge private sector stablecoins could pose to central bank prerogatives, and as evidence of the desire of institutions to address long-term goals such as payment system efficiency and financial inclusion.

Overall, private stablecoins cannot serve as the basis for a sound monetary system. There may yet be meaningful specific-use cases for stablecoins. But to remain credible, they need to be heavily regulated and supervised. They need to build on the foundations and trust provided by existing central banks, and thus to be part of the existing financial system. Moreover, if digital currencies are needed, central banks should be the ones to issue them. It is a new form of money and how it could improve retail payments in the digital area should be in line with central bank mandates.

Major central banks across the world are exploring the possibility of delivering a credible version of a central bank digital currency. However, there is a wide acknowledgement that the full realisation of such a digital currency will take time. Thus, according to the US Secretary of the Treasury Janet L. Yellen, “CBDC would likely present a major design and engineering challenge that would require years of development, not months”.⁴ On a similar note, one member of the Executive Board of the European Central Bank (ECB) noted that “the bank launched in October 2021 a two-year investigation phase to define the design features of the digital currency, and it is projected that by the end of 2023 the bank could decide to start a realisation phase to develop and test the appropriate technical solutions and business arrangements necessary to provide a digital euro, which

³ The US Federal Reserve defines CBDC “as a digital liability of the Federal Reserve that is widely available to the general public”. In this respect, it is analogous to a digital form of paper money. Likewise, the Atlantic Council, a think tank that is focused on international security and global economic issues, defines CBDC as a digital form of a country’s fiat currency that is also a claim on the central bank. Instead of printing money, the central bank issues electronic coins or accounts backed by the full faith and credit of the government.

⁴ Janet Yellen, ‘Remarks from Secretary of the Treasury Janet L. Yellen on Digital Assets’ (United States Department of Treasury, April 7, 2022) <<https://home.treasury.gov/news>>

could take three years. Only thereafter the bank will decide whether to actually issue a digital euro.”⁵

Cryptocurrency from a Sharī‘ah Perspective

A number of fatwas have been issued by Islamic scholars around the world on the legality of cryptocurrencies from a sharī‘ah point of view. Many sharī‘ah scholars claimed that cryptocurrencies such as Bitcoin (BTC) are not acceptable as a medium of exchange and are banned under Islamic law, as declared by a number of countries.

For example, the Indonesian National Council of Sharī‘ah Scholars (MUI) issued a fatwa banning all cryptos based on the fact that there is the element of uncertainty, speculation, and potential harm to the society. The Religious and Charity Institution in the United Arab Emirates issued a fatwa about cryptocurrencies and stated that, cryptocurrencies are not permissible (*hara m*) because they are not accepted and recognised by states and international authorities as money.

Shawky Ibrahim Allam, the Grand Mufti of Egypt’s Da r alIfta’, stated that all uses of cryptocurrencies, including trading, buying, selling, and leasing are religiously prohibited (*harām*) because of their negative effects on the economy, disruption of the market equilibrium and the concept of work, and the lack of required legal protections and financial oversight for traders. The Grand Mufti also concluded that cryptocurrencies infringe on the rights of those in authority, dispossessing them of their special prerogatives in this domain, and may give rise to damages from uncertainty, ignorance, and fraud in novel banking processes, standards, and values. Likewise, the General Authority of Islamic Affairs and Endowments in Egypt issued a Fatwa on Bitcoin and Other Digital Cryptocurrencies. The fatwa declared that ‘A currency is not legitimate and legal unless it meets the following criteria: that it is issued by the state and enjoys guarantee and protection of the law to reassure people, when dealing with them, to guarantee their rights, and fulfil their obligations’.

The Syrian Islamic Council has also issued a fatwa asserting that the use of cryptocurrencies is inherently high-risk, as their digital-only format renders them susceptible to loss in the event of technical malfunction or hacking. The ambiguity of cryptocurrency production, as well as the lack of reference points for the evaluation of cryptocurrency in trading and pricing prevents any authority or regulatory body from controlling market liquidity. Furthermore, their decentralisation and the lack of regulation regarding their circulation means they can be used for money laundering and other illegal activities.⁶

⁵ Fabio Panetta, ‘Central bank digital currencies: defining the problems, designing the solutions’ (US Monetary Policy Forum, New York, 18 February 2022) <<https://www.ecb.europa.eu>>. Fabio Panetta is a Member of the Executive Board of the ECB. His talk was part of a panel discussion on central bank digital currencies at the US Monetary Policy Forum.

⁶ The Syrian Islamic Council thus prohibits the use of cryptocurrencies as they currently stand—as high-risk ventures with unknown variables, fluctuating values, and a resemblance to gambling. However, it also notes that if these risks were removed and a centralized bank or other reliable authority put various mechanisms in place to set cryptocurrency prices and prevent their manipulation, then using cryptocurrencies would not be forbidden as long as it was not mixed up with excessive interest (*ribā*) or other forbidden financial transactions”.

Likewise, prominent scholars in Islamic economics and finance such as Ali Muhyudin Al-Quradaghi mentioned that supervisory authorities in most countries either prohibit dealing with electronic currency or have not adopted it. He has issued a fatwa that cryptocurrencies such as Bitcoin are prohibited because they are not issued as a legal tender and do not fulfil the function of money.

On the other hand, other fatwas do not declare cryptocurrencies as impermissible, but mainly cautioned against their volatile nature. For instance, Turkey's highest council of religious authority – the Directorate of Religious Affairs, also known as the Diyanet – declared that buying and selling of digital currencies is at odds with religion due to their lack of regulation and close connection to criminal activities.

In its 24th symposium, the Council of the International Islamic Fiqh Academy of the Organization of Islamic Cooperation stated that the legal ruling on cryptocurrency needs more examination and research to understand its nature and whether these currencies are commodities or usufruct (*manfa'ah*).

In Malaysia, the Sharī 'ah Advisory Council of Malaysia's Securities Commission (SC) has advised that it is permissible, in principle, to invest and trade cryptocurrencies and tokens on registered and approved digital asset exchanges or cryptocurrency exchanges.⁷ So far, four cryptocurrency exchanges have been approved: Luno Malaysia, Sinegy Technologies, MX Global Sdn Bhd., and Tokenize Technology.⁸ The Securities Commission Malaysia (SC) has issued the Guidelines on Digital Assets pursuant to section 377 of the Capital Markets and Services Act 2007. The guidelines set out the requirements that all offerings of digital tokens be carried out through an initial exchange offering (IEO) platform operator registered with the SC.⁹

The Way Forward: Conditions to Accept Crypto Currencies

Cryptocurrencies should be evaluated by considering their advantages and harms. In other words, evaluating all cryptocurrencies using just Bitcoin will lead to incorrect judgments as the characteristics of each crypto are different. Cryptocurrencies should not be denied as a whole, and the technological developments should not be neglected. The sharī 'ah principle with regards to business transactions (*mua'āmalat*) is that every transaction is permissible except when there is a clear text which prohibits it. The permissibility principle provides flexibility regarding new practices in business and financial transactions. Thus, all innovations in *mu'āmalat* are considered permissible and

⁷ A crypto exchange is a platform on which you can buy and sell cryptocurrency. In other words, the Digital Asset Exchange (DAX) is an electronic platform that facilitates the trading of digital assets. DAX platforms allows investors to trade permitted digital asset such as Bitcoin (BTC), Ether (ETH), Ripple (XRP), Litecoin (LTC) and Bitcoin Cash (BCH). See also: Securities Commission Malaysia, 'Frequently Asked Questions on Digital Asset Exchanges (DAX) Framework' (SCM, n.d.)

<<https://www.sc.com.my/api/documentms/download.ashx?id=251575c0-2e17-45a1-a3b8-fce9b113ee9d>>.

⁸ See: Securities Commission Malaysia, 'List of Registered Digital Asset Exchanges' (SCM, n.d.)
<<https://www.sc.com.my/regulation/guidelines/recognizedmarkets/list-of-registered-digital-asset-exchanges>>.

⁹ See: Securities Commission Malaysia, 'Guidelines on Digital Assets' (SCM, 28 October 2020)
<<https://www.sc.com.my/api/documentms/download.ashx?id=aeb10f62-944b-4d83-8aa0-4ed492dc1109>>.

welcomed unless there is clear evidence from the primary or secondary sources of shari‘ah to the contrary. Having said that, a number of conditions must be met to accept cryptocurrencies. This includes:

- ♦ The presence of supervisory bodies that supervise the issuance of a cryptocurrencies and guarantee their value, stability and purchasing power. An example of this is the existence of a coinage house in the history of Islam to convert gold and silver into dinars and dirhams, which indicates that the issuance of currency is one of the state's responsibilities. In this regard, the initiative taken by the SC of Malaysia which allows investment and trade in digital currencies and tokens on registered digital asset exchanges is worth assessing. This is also similar to the notion of issuing digital currencies by the central banks which is known as central bank digital currencies (CBDC). The key innovation with CBDC is the potential for non-banks (individuals and firms) to hold direct accounts with the central banks or to transact directly with one another using the CBDC as a legal tender. This has been made possible by the technology used in private digital currencies, namely the distributed ledger technology (DLT).
- ♦ Crypto should have the function of money or currency that is generally accepted as a medium of exchange, a unit of account, and a store of value in an economy. In



other words, crypto must have an intrinsic value as in dirhams or in dinars, or a nominal value granted by central banks or other monetary authorities. To achieve that, cryptocurrencies should be backed by real financial assets such as currency backed by any type of assets or services. The unpredictable price swings of most cryptos discourages many investors from taking part in the market. Asset-backed cryptos will avoid high price volatility and bring the stability that is distinctly lacking in the current crypto market. Therefore, investors will have the chance to invest in digital currency without having to deal with the uncertainty (*gharar*) of market changes.

- ♦ From a shari‘ah perspective, a currency whose value is technical and not intrinsic has to be properly backed by real valuable assets or be supervised by a trustworthy financial authority, in order to protect people dealing in it from possible fraud and excessive fluctuations in its value. Cryptocurrencies which are not backed by any type of assets or services should not be used as an instrument of investment or speculation. This is to preserve people’s rights and assets, which would be safeguarded with the existence of a solid legal and regulatory framework.
- ♦ Nonetheless, asset-backed tokens have suffered from fraud and lack of regulatory enforcement. Authorities should clearly take more stringent action to enforce their rules on asset and security tokens. A challenge in doing so is that those tokens are issued cross-border while authorities still have a strong local focus, making them rather ineffective to act.
- ♦ Robust and comprehensive regulatory frameworks should be developed to ensure the operation of crypto is in total compliance with shari‘ah, minimize shari‘ah non-compliance risk to firms and individuals who utilize it, and minimize dispute and conflict. In addition, regulatory frameworks must also be developed that address consumer protection and market conduct issues as well as the technological impact on the orderly functioning of financial markets. Such frameworks should promote benefits (*maslahah*) to the general public. According to an IMF report ‘a sound regulatory framework for crypto assets, and decentralized finance markets more generally, must be a priority on the global policy agenda. This is particularly pressing for stablecoins, for which some business models have been subject to the risk of sudden and severe liquidity pressures. A regulatory level playing field is a key priority’¹⁰.
- ♦ Most projects regarding CBDC are in their early stages and the shari‘ah position regarding CBDC is yet to be determined. However, Islamic financial institutions and finance support institutions such AAOIFI, the IFSB, the Islamic Fiqh Academy and the IsDB Institute are urged to work closely with central banks and be part of the change.

¹⁰ International Monetary Fund, ‘The Crypto Ecosystem and Financial Stability Challenges: Chapter 2 - Global Financial Stability Report, COVID-19, Crypto, and Climate: Navigating Challenging Transitions’ (IMF, October 2021).



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