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A clear-eyed view of DeFi for Middle East financial-services executives

Contacts

Abu Dhabi

Aurelien Vincent
Partner
+971-2-699-2400
aurelien.vincent
@strategyand.ae.pwc.com

Dubai

Jorge Camarate
Partner
+971-4-436-3000
jorge.camarate
@strategyand.ae.pwc.com

Vishal Gupta
Senior associate
+971-4-436-3000
vishal.gupta
@strategyand.ae.pwc.com

Riyadh

Dr. Antoine Khadige
Principal
+966-11-249-7781
antoine.khadige
@strategyand.ae.pwc.com

About the authors

Jorge Camarate is a partner with Strategy& Middle East, part of the PwC network. Based in Dubai, he leads the financial-services practice in the Middle East. He has over 15 years of strategy consulting experience in business strategy and operating model design for universal banks and life insurance companies. He specializes in retail and commercial banking, private banking and wealth management, and life insurance.

Dr. Antoine Khadige is a principal with Strategy& Middle East. Based in Riyadh, he leads the payments and financial technology (fintech) platform, part of the financial-services practice in the Middle East.

Vishal Gupta is a senior associate with Strategy& Middle East. Based in Dubai, he is part of the financial-services practice in the Middle East. He has over five years of strategy consulting experience in business strategy and operating model design for issuers, acquirers, processors, and fintechs in the payment industry. He specializes in payment flows, digital payment channels, card payments, and alternative payment methods.

Aurelien Vincent and Nader Haddad also contributed to this report.

EXECUTIVE SUMMARY

Financial-services companies in the Middle East, including banks, insurance companies, and fintechs, have a growing interest in the opportunities and risks posed by decentralized finance (DeFi). As its name suggests, DeFi refers to peer-to-peer financial services with no central authority or intermediary involved in trading, lending, investing, and other activities.

From one day to the next, DeFi appears to be either an inexorable force that is destined to disrupt traditional financial services forever or a component of a crypto-driven economic bubble that is born of technocratic hubris and destined to crash. Even as the crypto ecosystem is expanding at a blistering pace, fueled by keen interest from the investment community, examples abound of extreme volatility, platform failures, criminality, and environmental risk.

DeFi comprises a burgeoning array of platforms that support financial applications for payments, lending, trading, and more. Although only a tiny fraction of financial-services transactions are offered through cryptocurrencies (coins or tokens) compared with those offered through fiat (government-issued) currencies such as the U.S. dollar, that number is soaring; such transactions have grown by 400 percent between January 2021 and December 2021 alone.[1] The total value locked within DeFi applications approached $260 billion in December 2021 and is rising rapidly.[2]

All this interest and activity does not negate the myriad risks associated with DeFi, which are of paramount concern for current and prospective participants. This report discusses the state of DeFi today, its technological underpinnings, its potential applications, the roles financial-services institutions may play in the DeFi ecosystem, and the risks they can expect to encounter.

MAKING SENSE OF IT ALL

DeFi is an important yet confusing topic for Middle East financial-services companies. Even seasoned financial-services executives could be forgiven for struggling to stay abreast of the dizzying new lexicon surrounding the crypto ecosystem, which includes DeFi.[3]

Along with needing to understand the abundant risks, financial-services executives must distinguish between what's technologically feasible and what's economically and commercially viable with DeFi. A mortgage contract, for example, may be transacted by DeFi, yet a contract is useless without enforcement. If the homeowner stops making payments, the eviction process still takes place in the physical world. Contract enforcement is just one of countless considerations to be addressed—others relate to governance, security, taxation, and regulation[4]—before DeFi can operate at scale.

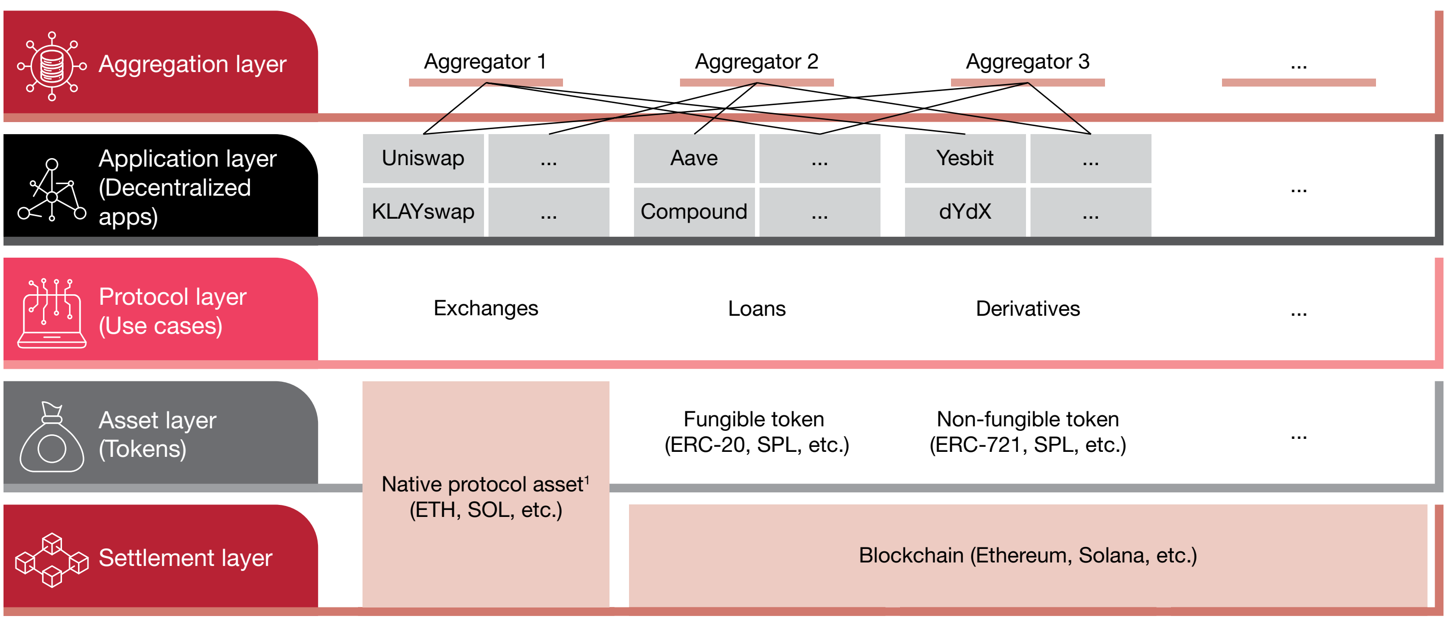
In this environment, financial-services executives must carefully consider their approaches to DeFi—including how, where, and when to invest—while simultaneously acknowledging and mitigating the risks and avoiding costly missteps. Staying on the sidelines is not a viable option given the learning curve, the opportunities to exert influence as the ecosystem develops, and the potential to establish a role that generates substantial returns and staves off competition. For the near future, executives can expect substantial ambiguity surrounding all things DeFi, which they can best confront with an open mind, a level head, and a willingness to roll up their sleeves and get involved.

DISTRIBUTED LEDGERS LAY THE FOUNDATION FOR DEFI

Although distributed ledger technology (DLT) has been around since the 1990s, it rose to prominence with the 2009 launch of Bitcoin, the digital payments system that runs on one type of DLT called a blockchain (*see Exhibit 1*). A blockchain is a combination of digital infrastructure and protocols that enable a transaction (such as a payment) to be simultaneously accessed, validated, and updated to a database that is distributed among multiple computers, called nodes. The blockchain is governed by a set of rules that represent a decentralized autonomous organization; governance tokens issued to members facilitate voting.

EXHIBIT 1

How decentralized finance works



[1] Native protocol assets work off their blockchains.
Source: Strategy&

Today, there are hundreds, if not thousands, of blockchains. DeFi operates primarily, but not exclusively, on the Ethereum blockchain. (Other prominent blockchains are Binance Smart Chain, Cardano, and Solana.) Ethereum was launched in 2013, and in 2015 it added the ability to implement programs—called *smart contracts*—that execute automatically when an established set of terms and conditions are met.

Smart contracts set the stage for more complex transactions than simple payments and are now a core component of many decentralized apps (dApps) used in finance and other domains. With a combination of dApps, DeFi users can perform most of the transactions of traditional finance. To minimize volatility, most dApps are transacted in stablecoins, which are cryptocurrencies whose value is pegged to a fiat currency.

Among the advantages of DeFi:

- Lower fees, due to the lack of intermediaries

- Increased transparency, because all activity is readily accessible and viewable to everyone on the blockchain

- Increased security and validity, because transactions are immutable (that is, once stored, they cannot be altered)

- Seamless exchanges among accounts and entities, a by-product of there being no centralized entity

In the absence of traditional fees, participants are charged a small fraction of the underlying digital asset's market value for the energy needed to create (mine), run, or use dApps. Because every transaction is validated on multiple nodes, DeFi is extremely energy intensive. Without remuneration for the computational power that node owners use to operate blockchains, they would be far less likely to participate.

Although blockchains themselves are fundamentally reliable and function as designed, the broader crypto ecosystem has well-earned notoriety.[5] One of the earliest, and still largest, thefts of bitcoins took place in 2014.[6] In 2017, initial coin offerings, a crowd-based fundraising instrument that lures investors to cryptocurrencies, became popular. However, the value of these initial coin offerings crashed soon afterward. Subsequently, some countries have banned them. According to the *Wall Street Journal*, crypto scammers stole more than $4 billion in 2019.[7]

These and other high-profile scandals haven't tamped down growth in the crypto ecosystem. A 2020 PwC report estimated that blockchain had the potential to contribute $1.7 trillion to the global economy by 2030.[8]

WAYS TO PARTICIPATE IN THE DEFI ECOSYSTEM

DeFi has tremendous potential to expand beyond crypto trading and into traditional finance, including:

- Lending and borrowing: DeFi platforms automatically connect borrowers with lenders, enforce loan terms, and distribute interest. Recently, “yield farming,” or lending crypto assets in exchange for transaction fees or interest, has emerged as a popular strategy for earning passive income.

- Decentralized exchange (DEX): DEXs allow users to buy, sell, or trade cryptocurrencies. When users trade on a DEX, there is no exchange operator, nor are there signups, identity verification, or withdrawal fees. Instead, the smart contracts enforce the rules, execute trades, and securely handle funds through automated market-maker protocols. Unlike centralized exchanges, DEXs often do not require funds to be deposited into an exchange account before conducting a trade, thus eliminating the major risk of exchange hacking.

- Decentralized insurance: Users can purchase insurance to cover losses of digital assets in the crypto ecosystem. A DeFi platform matches those seeking coverage with those willing to insure them in exchange for premium payments without the involvement of a traditional insurance broker or agent.

- Crypto derivatives: In the traditional sense, derivatives are secondary contracts that derive their value from underlying assets such as stocks or bonds. Recently, crypto derivatives—futures, forwards, swaps, and options—have emerged as a new investment class.

Already, the Ethereum blockchain supports the development of dApps for lending, using a protocol called Compound, and for mutual insurance via the Nexus Mutual protocol. These and other DeFi services will appeal predominantly to digital natives (those who grew up with digital technology), a cohort that is growing every year, overall and as a percentage of the total population.

Global crypto companies with an interest in DeFi have begun to expand into the Middle East. Binance, the largest crypto exchange globally, announced plans to set up its Middle East headquarters in the United Arab Emirates (UAE). Likewise, local companies have begun to participate. Rain Financial, a Bahrain-based crypto exchange, recently raised US$110 million in funding, primarily from foreign investors including Coinbase Ventures. CoinMENA, which caters to residents of Bahrain, the UAE, Saudi Arabia, Kuwait, and Oman, was recently granted a cryptocurrency license from the European Union.[9]

Banks and other traditional financial institutions can consider participating in the DeFi market in a variety of ways, including as:

A trusted distribution channel

Banks already have a captive customer base and have invested considerable resources in the digital customer experience, which the DeFi ecosystem is sorely lacking. Banks can act as effective distribution channels for DeFi products including, for example, insurance, providing access to their huge traditional customer bases.

A custodian of digital assets

Banks can offer safe custody services—akin to safe deposit boxes—for cryptocurrency and other digital assets such as nonfungible tokens (NFTs). Already, U.S. Bancorp, the fifth-largest bank in the United States, has begun providing custody services to fund managers to store private keys for bitcoin and other cryptocurrencies.[10]

A bridge between DeFi and traditional finance

Banks and other financial institutions can develop credible and trustworthy pathways between the centralized financial-services ecosystem and DeFi. For example, Goldman Sachs recently announced it will facilitate client investment in digital assets, including bitcoin.[11] Another example is crypto-enabled cards, whereby payment systems convert cryptocurrency to fiat currency in real time to enable users to employ cryptocurrency for real-world payments.

A source of operational efficiency

Banks can use DeFi to streamline traditionally cumbersome transactions. For example, the typical cross-border payment goes through six institutions—two central banks, two correspondents, an originator bank, and a receiver bank—before it is settled and generally takes one to two days depending on the banks and currencies involved. Alternatively, a bank could settle the payment within minutes using stablecoin. Companies could therefore make substantial savings on cross-border payments costs by using a multi-central bank digital currency network.

In considering the roles they may play in the DeFi ecosystem, financial-services institutions cannot ignore the risks—to themselves and customers. For example, smart contracts are only as sound as the rules that define them, and such contracts have been known to cause problems when they are poorly written. Most DeFi hacks have resulted from either a weakness in smart contract source code or mismanagement of the private keys that limit access to them.

Gulf Cooperation Council governments are signaling their intent to regulate the region's nascent cryptocurrency ecosystem, including DeFi, with a wave of new initiatives. In late 2021, the UAE issued a new stored-value facilities regulation covering cryptoassets.[12]

The Central Bank of Bahrain now allows cryptocurrencies as an official method of payment (not legal tender), and permits established banks to interoperate with crypto-exchanges so that customers can easily withdraw and deposit their money.

However, the DeFi ecosystem still lacks the regulatory frameworks—for example, for anti-money laundering and know your customer (AML/KYC) policies—that are well-established in traditional finance. Given the complexity of DeFi, regulators will need time to clarify their role and provide the oversight needed to boost confidence in the system. Similarly, the decentralized community that governs DeFi is still in its inception stage and will evolve as the industry matures. Banks and other financial-services companies should commit themselves to participating in discussions about these and other issues that are prerequisites for a viable DeFi industry segment.

> “Gulf Cooperation Council governments are signaling their intent to regulate the region’s nascent cryptocurrency ecosystem, including DeFi, with a wave of new initiatives.

CONCLUSION

The DeFi ecosystem has reached its early-adopter stage, yet it is premature to say with any certainty that it will become mainstream and be adopted at scale. How traditional financial institutions integrate this new technology will significantly impact its growth trajectory and long-term success. It behooves them to experiment with DeFi at this early stage, before it grows from yet another unwelcome disruption into a threat.

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