



REPUBLIC OF KAZAKHSTAN

FINANCIAL SECTOR ASSESSMENT PROGRAM

April 2024

TECHNICAL NOTE ON REGULATION AND SUPERVISION OF CRYPTO ASSETS

This Technical Note on Regulation and Supervision of Crypto Assets for the Republic of Kazakhstan Financial Sector Assessment Program was prepared by a staff team of the International Monetary Fund and the World Bank as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed in April 2024.

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TECHNICAL NOTE

REGULATION AND SUPERVISION OF CRYPTO ASSETS

Prepared By
**Monetary and Capital Markets
Department, International
Monetary Fund**

This Technical Note was prepared by Parma Bains under the supervision of Pierpaolo Grippa in the context of a joint IMF-World Bank Financial Sector Assessment Program (FSAP) mission in Kazakhstan during April 2023 led by Pierpaolo Grippa, IMF and Pietro Calice, World Bank, and overseen by the Monetary and Capital Markets Department, International Monetary Fund, and the Finance and Markets Global Practice, World Bank. The note contains the technical analysis and detailed information underpinning the FSAP assessment's findings and recommendations. Further information on the FSAP program can be found at <http://www.imf.org/external/np/fsap/fssa.aspx>.

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Glossary

AFSA	Astana Financial Services Authority
AIFC	Astana International Financial Centre
AML / CFT	Anti-Money Laundering / Combating the Financing of Terrorism
ARDFM	Agency for Regulation and Development of the Financial Market
ASIC	Application-Specific Integrated Circuits
BCBS	Basel Committee on Banking Supervision
BFA	Bali Fintech Agenda
CBDC	Central Bank Digital Currency
DeFi	Decentralized Finance
DLT	Distributed Ledger Technology
EMDEs	Emerging Market and Developing Economies
FMA	Agency for Financial Monitoring
FSB	Financial Stability Board
GSC	Global Stablecoin
GPU	Graphics Processing Unit
FSAP	Financial Sector Assessment Program
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
KISC	Kazakhstan Interbank Settlement Centre
MDAI	Ministry of Digital Development, Innovations and Aerospace Industry
MoU	Memoranda of Understanding
MMoU	Multilateral Memorandum of Understanding
NBK	National Bank of Kazakhstan
NPC	National Payment Corporation for Kazakhstan
PFTDC	Payments and Financial Technologies Development Centre
PoW	Proof of Work

EXECUTIVE SUMMARY

The crypto asset market in Kazakhstan is relatively small and dominated by the presence of crypto miners. As of April 2023, crypto asset activities in Kazakhstan remains small, with approximately 1–3 percent of residents in Kazakhstan buying or selling crypto assets, with most of these transactions occurring through global exchanges that are not subject to regulatory oversight. While substantially smaller than its peak in 2021, the crypto ecosystem continues to be dominated by the presence of crypto miners that contributes roughly 13 percent of the global Bitcoin hashrate. These miners are required to store a majority of their crypto assets in exchanges registered in the Astana International Financial Centre (AIFC), a separated international market located within the territory of the Republic of Kazakhstan.

The circulation of many types of crypto assets are banned in Kazakhstan, and they are not allowed to be used for payments, but supervision and enforcement are challenging.¹ The circulation of so-called unsecured digital assets² is banned in Kazakhstan. These are broadly akin to unbacked crypto assets (Bitcoin, Ether etc.), stablecoins (USDT, USDC etc.) and security tokens. The circulation of so-called secured digital assets is allowed in Kazakhstan, although as of April 2023, there is currently no underpinning regulation, active market, and little demand. These are broadly akin to tokenized assets, although not including tokenized securities or tokenized deposits. While crypto assets are not used for payments, enforcing the broader prohibition against buying and selling is challenging, and authorities seem to tolerate a certain degree of circumvention.

There is a crypto pilot project in the AIFC, a Jurisdictionally Separated International Financial Center. The aim of the AIFC is to attract foreign capital and help develop domestic financial markets. The Astana Financial Services Authority (AFSA) has regulatory powers in the AIFC. A pilot project on crypto assets launched in the AIFC allows for the circulation of unsecured digital assets, with significant restrictions, but serves largely residents in Kazakhstan and utilizes the fiat settlement rails of commercial banks domiciled and registered in Kazakhstan. Uptake so far has been small, with approximately 6000 users and \$6million of transactions as of April 2023 and users are restricted in terms of the amount they can invest, the type of crypto assets they can trade, and the activities they are able to conduct. The transition from pilot project to live launch will likely alter some regulatory requirements and restrictions.

There are limited short-term financial stability implications from crypto assets in Kazakhstan, but this can change quickly. The market is currently small in terms of both retail and professional clients and, as of April 2023, there seemed to be little demand from residents as well as banks to

¹ Following the conclusion of the mission, in June 2023, domestic authorities, through the Financial Stability Council, signaled a shift towards legislating for a future regulatory framework for crypto assets. Should authorities pursue this approach, any future regulatory framework should be aligned with global standards and recommendations.

² We refer to these as crypto assets and only use the term “digital assets” when referring to specific terminology in legislation or regulation in Kazakhstan. It is not the digital nature of these products that makes them unique as many assets can be digital and not use distributed ledger technology (e.g., e-money, dematerialized securities). What distinguishes them is the fact that they are cryptographically secured and often deployed on DLT.

increase their exposures to crypto assets. However, should global crypto asset markets grow, and crypto prices rise, demand in Kazakhstan could quickly grow, and financial stability implications could change. The expansion of a pilot regime in the AIFC into a live launch could also legitimize the market, providing greater incentives for users to engage in crypto assets going forward and potentially having implications for financial stability in Kazakhstan.

Through the prohibition, currency control regulations, and oversight of commercial banks, authorities are currently able to manage risks. While not having direct oversight of crypto markets, 'domestic' authorities are able to shape and influence crypto markets in Kazakhstan through their oversight of commercial banks that provide fiat settlement rails for crypto exchanges, and their collaboration with authorities in the AIFC. It is also likely that the prohibition, even if lightly supervised and enforced, has dampened market activity.

The ultimate goal for authorities should be to move towards a comprehensive regulatory framework for crypto assets, although this might not be a regulatory priority. Prohibitions, while useful in the short-term, may not be a viable long-term solution given the incentives users have to circumvent bans using technology that obfuscates the location of users, the ability to conduct peer to peer transactions, and the ability to use cross border intermediaries to access crypto markets. Existing prohibitions are often, and easily, bypassed, leading to an underground market that is approximately 100 times larger than the legitimate market for crypto. Although not a regulatory priority, a transition from prohibition to a robust regulatory framework should be the ultimate goal for authorities, although the speed of this transition should be contingent on a growing local market, upskilling of supervisors, and as part of a global move to regulating crypto markets, including the development of global standards and recommendations. Regulation should be in line with global standards and could be combined with targeted restrictions, including existing restrictions on using crypto assets for payments, or restrictions on crypto marketing.

To move towards a comprehensive regulatory framework and to have effective oversight of crypto markets, authorities will first need legal powers and to upskill staff. Currently, legislation prohibits the circulation of certain crypto assets within Kazakhstan, but domestic authorities should be empowered to have oversight of crypto markets if the local market grows. Should domestic authorities be required to oversee crypto markets, they will need to upskill staff. As of April 2023, most domestic authorities identify and respond to the risks of crypto assets, and other technology enabled innovation in financial services, through existing supervisory structures. This is a sensible approach and authorities should upskill within these supervisory structures as opposed to creating new institutional arrangements such as sandboxes specifically for crypto.

Regardless of a prohibition or regulation, authorities should improve their domestic collaboration and international cooperation in relation to crypto assets. Domestic authorities should formalize and regularize meetings of their existing domestic interagency working group. This working group should have standing meetings to ensure that domestic authorities are able to better monitor risks from crypto assets and observe the evolving market. Authorities may consider constituting working level subgroups to ensure the burden of upskilling, monitoring, and responding to risks is shared across all relevant domestic authorities. Domestic authorities should

also play a proactive role in fintech and crypto based subgroups of global and standard-setting bodies, joining relevant subgroups to share their insights of the local market, while observing global trends, and monitoring regulatory responses.

Authorities should improve user education through joint communication to markets and consumers. In the short-term, authorities should work to ensure that users are informed of the trade-offs from using international crypto exchanges that are not registered, are operating illegally, but may provide more options and more competitive pricing, and AIFC-registered crypto exchanges that may provide regulatory protections. This approach should be wide reaching through online media outlets to reach users most likely to engage with crypto assets. Over the long-term, users should be able to consider trade-offs and make informed decisions on their preferred approach.

Table 1. Republic of Kazakhstan: Main Recommendations

Recommendation	Priority¹
1. Domestic authorities together with AFSA should formalize and regularize meetings of the interagency working group on crypto assets and create active sub-groups on areas of interest and concern. (¶28)	Immediate
2. Domestic authorities should extend their membership of crypto and broader fintech subgroups of global and standard-setting bodies and consider signing and making use of Fintech Cooperation Agreements with peer international regulators to upskill staff and better monitor developments. Domestic authorities should also leverage AFSA's membership of global bodies and Fintech Cooperation Agreements to better understand global developments. (¶28)	Immediate
3. Domestic authorities should work closely with AFSA to improve and standardize user education and communication, to ensure users have a better understanding of trade-offs when using AFSA-registered crypto exchanges or international exchanges. (¶45)	Immediate
4. Domestic authorities should better understand and respond to possible interconnections between banks and exchanges, and potential interlinkages between domestic and international exchanges through enhanced monitoring using the interagency working group, and take regulatory action where necessary through greater engagement of regulation and supervision, and in conjunction with AFSA where appropriate. (¶43, 44)	Immediate
5. Domestic authorities should begin upskilling supervisors to better recognize risks from crypto markets, in relation to banks, but also broader risks to mandates. (¶44, 56)	Near term
6. Authorities should have the legal powers to regulate crypto markets—should demand in Kazakhstan grow—while imposing targeted restrictions. (¶61)	Near term
7. Although not a regulatory priority, the broad prohibition on crypto assets could be replaced by a robust regulatory framework, contingent on market growth, upskilling supervisors, and a globally coordinated move to implementing conduct and prudential regulation. (¶61, 62)	Near term
8. Bank exposures to crypto assets should be limited in line with developing global standards. While banks don't face demand to have or increase their exposures, this could change in the near term. Should demand from banks arise, authorities may consider allowing banks to have exposures to crypto assets. In such a case, the exposures should be subject to developing global standard and guidelines. (¶55)	Near term
1/ Immediate (within 1 year), Near-term (1-3 years)	

INTRODUCTION³

A. Scope and Approach of This Note

1. This technical note (TN) covers the regulation and supervision of crypto assets in the Republic of Kazakhstan and potential implications for financial stability as of April 2023. The focus of the TN is on the potential financial stability implications of crypto asset activities carried out in the Republic of Kazakhstan, and it also explores risks to users and markets. The TN only assesses the approach of authorities within the Republic of Kazakhstan, but it considers spillover and contagion effects from crypto asset activities conducted by entities based in the AIFC to firms and residents in Kazakhstan⁴, particularly where it might impact financial stability, user protection, and market integrity. This TN focuses on prudential and conduct regulation of crypto assets in financial markets including the role of issuers, crypto asset service providers, and other crypto intermediaries, but does not cover financial integrity issues including anti-money laundering / combating the financing of terrorism (AML/CFT), infrastructure including payment systems and central bank digital currencies (CBDCs), or crypto mining (unless it interacts with the domestic financial system), some of which are covered in separate TNs. This TN covers the crypto ecosystem as of April 2023.

2. The TN draws from developing global standards, recommendations, and best practice to support the analysis and policy recommendations. While global standards on the prudential and conduct regulation of crypto assets are still being developed or are not yet binding, there exists finalized standards, guidelines, and best practice that have been used to anchor the policy analysis and recommendations. Most relevant, as of April 2023, are the Basel Committee on Banking Supervision (BCBS) standards on the prudential treatment of crypto asset exposures,⁵ the International Organization of Securities Commissions (IOSCO) recommendations on crypto asset trading platforms,⁶ the World Bank–International Monetary Fund (IMF) Bali Fintech Agenda (BFA),⁷ and IMF publications including Fintech Notes on Regulating the Crypto Ecosystem^{8,9} and the Board endorsed Elements of Effective Policies for Crypto Assets.¹⁰ As of April 2023, the proposed Financial Stability Board (FSB) recommendations on crypto assets,¹¹ the revised FSB high-level

³ This Technical Note was prepared by Parma Bains

⁴ The role of the AIFC is further explored in the Technical Note ‘The Astana International Financial Centre and the Kazakhstan financial system’

⁵ [Prudential treatment of cryptoasset exposures \(bis.org\)](https://www.bis.org/publ/prud/202001.htm)

⁶ [FR02/2020 Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms \(iosco.org\)](https://www.iosco.org/publications/working-papers/Pages/FR02-2020-Issues-Risks-and-Regulatory-Considerations-Relating-to-Crypto-Asset-Trading-Platforms.aspx)

⁷ [The Bali Fintech Agenda \(imf.org\)](https://www.imf.org/en/Publications/WP/Pages/2017/02/01/bali-fintech-agenda)

⁸ [Regulating the Crypto Ecosystem: The Case of Unbacked Crypto Assets \(imf.org\)](https://www.imf.org/en/Publications/WP/Pages/2018/02/01/regulating-the-crypto-ecosystem-the-case-of-unbacked-crypto-assets)

⁹ [Regulating the Crypto Ecosystem: The Case of Stablecoins and Arrangements \(imf.org\)](https://www.imf.org/en/Publications/WP/Pages/2018/02/01/regulating-the-crypto-ecosystem-the-case-of-stablecoins-and-arrangements)

¹⁰ [Elements of Effective Policies for Crypto Assets \(imf.org\)](https://www.imf.org/en/Publications/WP/Pages/2018/02/01/elements-of-effective-policies-for-crypto-assets)

¹¹ [International Regulation of Crypto-asset Activities: A proposed framework – questions for consultation \(fsb.org\)](https://www.fsb.org/wp-content/uploads/2018/04/International-Regulation-of-Crypto-asset-Activities-A-proposed-framework-questions-for-consultation.pdf)

recommendations on global stablecoins (GSCs)¹² are still in the consultation stage, which are referred and used to guide the discussions with the authorities.^{13,14}

3. The TN is structured in three main sections and is based on documentation provided by the authorities and on-site meetings with the authorities and industry. The first section provides some background on the crypto asset market in the Republic of Kazakhstan. The second section provides an overview of the regulatory approach to crypto assets in the Republic of Kazakhstan, as well as other relevant considerations, including potential impacts from the regulatory approach of AFSA. The final section focuses on key risks and provides recommendations for authorities to implement to manage those risks. To produce this TN, the mission reviewed authorities' response to a questionnaire on the regulation and supervision of crypto assets and other documentation made available by the authorities, including laws, regulation, communication, reports on crypto as well as supervisory and enforcement files where available.

4. The author is grateful to the authorities and private sector participants for their cooperation. The author benefitted greatly from the valuable inputs and insightful views from meetings with regulators, supervisors, and market participants in the Republic of Kazakhstan and the AIFC.

CRYPTO IN KAZAKHSTAN

5. Following the ban on crypto asset activities in China, Kazakhstan saw a significant increase in crypto activities in 2021. Crypto activities in Kazakhstan, largely crypto mining, steadily grew from 2017 as the global prices of crypto assets increased. The industry grew rapidly from May 2021 following the imposition of a series of restrictions and then a broad ban of crypto activities in China. In particular, the availability of relatively cheap energy through abundant coal deposits, unused industrial buildings, and receptive authorities acted as incentives for crypto mining entities that had moved out of China to open operations in Kazakhstan. At its peak in October 2021, Kazakhstan accounted for an estimated 27.3 percent of the global Bitcoin hashrate, briefly making it the second largest country in the world for Bitcoin mining.¹⁵

¹² [Regulation, Supervision and Oversight of "Global Stablecoin" Arrangements: Final Report and High-Level Recommendations \(fsb.org\)](#)

¹³ While other guidelines and standards exist such as the Financial Action Taskforce Standards of Virtual Assets, and CPMI-IOSCO guidelines on systemic stablecoins, these are outside the scope of this TN as it does not cover AML/CFT issues or payments and market infrastructure. Crypto assets are banned as a means of payment in the Republic of Kazakhstan.

¹⁴ Following the conclusion of the assessment, in July 2023, the FSB finalized their two sets of high-level recommendations. In May 2023, IOSCO began consulting on policy recommendations for crypto assets: High-level Recommendations for the Regulation, Supervision and Oversight of Crypto-asset Activities and Markets: Final report - Financial Stability Board (fsb.org)
Review of the FSB High-level Recommendations of the Regulation, Supervision and Oversight of "Global Stablecoin" Arrangements: Consultative report - Financial Stability Board CR01/2023 Policy Recommendations for Crypto and Digital Asset Markets (iosco.org).

¹⁵ [Cambridge Bitcoin Electricity Consumption Index \(CBECI\) \(ccaf.io\)](#)

6. Volatility in crypto markets and energy shortages have reduced the size of the crypto market in Kazakhstan. Power use grew considerably in 2021 turning Kazakhstan from a country with an energy surplus to one with a deficit resulting in power outages. At least some of this was driven by the growth of crypto mining—some estimates suggest up to 7 percent of Kazakhstan’s generating capacity was used for crypto mining in 2021.¹⁶ Miners were distinguished between so-called “white” miners that registered with authorities and paid tax (benefiting from tax breaks), and so-called “grey” miners that operated illegally. In response, the government shut down “grey” crypto mining operations throughout the country, while incentives for “white” crypto mining entities were reduced with access to the electricity grid severely constrained. In May 2022, the so-called stablecoin, TerraUSD, collapsed with extended ramifications across crypto markets including the failure of several crypto entities and a fall in the price of crypto assets, including Bitcoin, which further reduced the profitability of crypto mining. As of March 2023, Kazakhstan accounts for 13.2 percent of the global Bitcoin hashrate according to authority estimates. One authority estimated that about 70 percent of mining companies have left Kazakhstan since the peak of activities, with about 265 registered mining firms remaining.

Box 1. Bitcoin Mining

Bitcoin mining is the process through which Bitcoin are created (minted) and new transactions are verified, which requires agreement across distributed networks. Consensus mechanisms underpin the effective operation of blockchains and ensure a single, consistent, and reliable ledger. Consensus mechanisms in DLT systems guarantee that a state, value, or piece of information is correct and agreed on by most nodes.

As the fundamental underpinning of the Bitcoin Blockchain developed by Satoshi Nakamoto, Proof of Work (PoW) is the most frequently used and well-known consensus mechanism. PoW involves “nodes” solving cryptographic hashes (asymmetrical mathematical puzzles) to produce new blocks in a process known as mining—thereby showing proof of work. The Bitcoin protocol adjusts the difficulty of these puzzles to ensure that a new block is produced every 10 minutes. Although the puzzles are designed to be hard to solve, they are easy for the network to verify.

To solve the mathematical puzzles generated by the Bitcoin protocol, nodes need to use “brute force,” through trial and error, which, in turn, consumes considerable energy because it requires specialized computing systems to run through all possible solutions until the winning solution is found—an effort that uses significant power—but has the potential to generate Bitcoin as reward. This keeps the network secure and incentivizes participation.

In its initial stages crypto mining was relatively democratized and almost anyone could set up their own mining operation; however, over time mining has become affordable only to those with access to greater resources, often requiring graphics processing units (GPUs) or specialized application-specific integrated circuits (ASICs) to carry out the computations.

¹⁶ [Bitcoin mining was booming in Kazakhstan. Then it was gone. | MIT Technology Review](#)

Box 1. Bitcoin Mining (concluded)

The need for energy means crypto miners often look for jurisdictions where the provision of energy is relatively cheap. During the rapid growth of crypto mining in Kazakhstan, crypto miners were paying \$0.0023 per Kwh, as well as benefiting from various tax breaks, which provided a strong incentive for miners to relocate.

However, following energy shortages in the country, the government increased the cost of electricity for crypto miners to \$0.01 per Kwh, implemented a tax on crypto mining equipment like GPUs, and removed mining hardware from an exemption from certain taxes.

One impact of the move of crypto mining to Kazakhstan was a change in the energy composition of Bitcoin mining. In China, access to hydro power resulted in an energy mix that contained a greater proportion of renewable energy. However, in Kazakhstan crypto mining was driven largely by the country's vast coal deposits, altering the global Bitcoin mining energy mix, reducing the proportion of renewables at the expense of fossil fuels.

Bitcoin is not the only crypto asset that uses PoW as a method of generating consensus, although it is the largest. However, recently some networks have shifted to less energy intensive methods of generating consensus, most famously the Ethereum Network which has shifted to Proof-of-Stake.^{1/} If more networks begin to move away from PoW, it is likely that revenues from mining may fall in the longer term.

Sources: [IMF Fintech Note: Blockchain Consensus Mechanisms: A Primer for Supervisors](#)

Cambridge Bitcoin Electricity Consumption Index

^{1/} A Proof-of-Stake consensus mechanism relies on network participants staking a proportion of their crypto asset holdings in order to 'win' the opportunity of validating new blocks and generating a reward.

7. Retail holdings of crypto assets remain limited but have the potential to grow. While data are difficult to verify in crypto markets, the estimated retail holding of crypto assets in Kazakhstan is small (1-3 percent of the population are holders), with relatively small activity in both centralized and decentralized crypto ecosystems, and AIFC-registered exchanges and non-registered international exchanges as of April 2023. While most authorities and market participants agree on this broad figure, one market participant gave an upper estimate of 8 percent. Most market participants thought about a quarter of crypto users were considered active monthly users. Potentially half of crypto asset owners in the country are Russian citizens that have moved to Kazakhstan since the start of the Russian invasion of Ukraine. If crypto prices were to rise, it is likely the domestic crypto market would also grow.

8. An ongoing pilot project in the AIFC could create a larger market for retail crypto assets in the future. One estimate suggests total transaction volumes in the pilot project of around \$6 million between August 2022 and February 2023 involving all participants in the AIFC pilot project, while total retail clients under registered exchanges is around 6,000. Those crypto exchanges carry out estimated daily transaction values of around \$30,500 with the most popular

trading pairs involving some of the largest crypto assets in the market (Bitcoin, Ether, and Tether), and popular global and regional fiat currencies (Kazakhstani Tenge, U.S. Dollar, and Russian Ruble).

9. There might be several reasons why residents in Kazakhstan hold crypto assets. A study by AFSA of retail participants in the AIFC pilot suggests that most factors for retail holdings are similar to other jurisdictions, for example, the growth of crypto markets; growing interest in holding crypto assets for speculative or investment purposes; a belief that the underlying technology could create efficiencies, transparency, and financial inclusion; and the possibility of high yields, particularly through decentralized finance (DeFi). The number of crypto users in Kazakhstan is similar to the number of users that invest in capital markets and there is likely to be overlap as capital markets investors are also likely to purchase crypto assets. A possible reason unique to Kazakhstan is the growing mining industry in Kazakhstan, which is allowed under national legislation, and could both raise awareness, and potentially create incentives to buy crypto assets given that the presence of crypto mining has created a broader crypto ecosystem. Authorities, banks, and crypto exchanges believe that users hold crypto assets primarily for speculative purposes, although one exchange mentioned demand for dollar denominated stablecoins, largely from import-export businesses that want quick settlement.

10. There are also several reasons why the retail market for crypto assets is small. Authorities, banks, and crypto exchanges highlighted weak underlying demand for crypto assets from retail clients due to the inherently risky nature of trading crypto assets and a lack of use cases given a relatively mature fintech ecosystem and the availability of quick, digital, and trusted domestic payment rails. The use of crypto assets for payments is banned in Kazakhstan, and other than AIFC-registered exchanges, the issuing, trading, and storage of unsecured digital assets is also prohibited which has also dampened market growth. In comparable emerging market and developing economies (EMDEs) crypto assets have higher adoption rates, driven by the popularity of dollar denominated stablecoins as a way of hedging against weak local currencies and gaining indirect exposure to the dollar through a quasi-dollar like instrument. However, in Kazakhstan residents have quick and easy access to dollars through exchange bureaus which are common through large cities, and banking applications, so there is little need to access instruments that aim to mirror the dollar but can deviate from their peg (as nearly all major stablecoins have). Finally, authorities and industry participants both pointed to a risk averse nature of Kazakhstani culture, which is also reflected in limited participation in capital markets, and an additional mistrust of crypto given past associations with fraud and scams.

11. There is limited bank involvement in crypto assets, but this can change quickly. Banks in Kazakhstan are not able to invest in crypto assets directly or indirectly so there is little to no institutional involvement in crypto assets. Some commercial banks in Kazakhstan are part of the AIFC pilot project, providing fiat settlement services for crypto exchanges, and have the potential to get direct exposure to crypto assets (only if their operations are limited to the AIFC), generating some interconnections with the banking sector which could grow quickly depending on the outcomes of the pilot project. One large bank mentioned weak demand from customers and the risky nature of crypto assets as a reason for not getting involved in crypto markets, including the

pilot project, while others mentioned a desire to better understand crypto markets, while staying away from direct exposures. Banks generally did not believe there was large demand from their customers for crypto services, but a growth in crypto prices, or easier ways for users to access crypto markets could potentially generate change.

12. According to authorities and industry, users generally understand the risks of crypto but broader digital literacy is low, and projects are in place to further increase awareness.

Regulatory authorities have published articles and communications of the dangers of investing in crypto assets highlighting potential fraud in the sector, and volatility of the crypto assets. The Astana Hub (an international techno-park of IT start-ups), together with the Center for the Development of Payment and Financial Technologies at the NBK, launched the Blockchain Center which is aimed at supporting the blockchain industry through the development of digital projects built on distributed ledger technology (DLT). Among other goals, it aims to launch educational initiatives together with industry market players, as well as the introduction of educational programs in higher educational institutions. In February 2023, the Binance Academy launched an online training of teachers with the aim to allow them to ultimately train students on blockchain to facilitate the nurturing of local talent and expertise.

REGULATORY APPROACH

A. Institutional Setting and Approach to Crypto

13. The circulation and use of most types of crypto assets are currently prohibited in Kazakhstan, and crypto is banned as a means of payment. The “Law on Informatization” prohibits the circulation of unsecured digital assets and has been in force since July 2020, and also bans it as a means of payment. Similar prohibitive approaches are enshrined in the new Law of the Republic of Kazakhstan “On Digital Assets in the Republic of Kazakhstan,” which came into force on April 1, 2023. Unsecured digital assets are crypto assets received in the form of a reward from mining, not expressing monetary obligations, and can be traded in digital form on a crypto exchange (Box 2). These are more commonly known as unbacked crypto assets, crypto tokens, or cryptocurrencies and include Bitcoin, Litecoin, Ether etc. Furthermore, the use of stablecoins and security tokens are also prohibited. These crypto assets cannot be traded, stored, lent, staked, or used for payments within Kazakhstan. Banks help implement this prohibition by blocking customers’ fiat transfers to non-AIFC-registered crypto exchanges or wallets. However, users are still able to circumvent the prohibition and access international crypto exchanges to buy and sell crypto assets. The prohibition is lightly monitored and enforced by authorities, who face resource constraints and technology challenges.

14. Legislation allows for crypto mining and certain types of crypto assets. The “Law on Digital Assets in the Republic of Kazakhstan” creates a regime for crypto miners to register with the Ministry of Digital Development, Innovations and Aerospace Industry (MDAI) and be subject to oversight. The regime, which went live on April 1, 2023, will eventually require miners to deposit

75 percent of their mining rewards in AIFC-registered exchanges in a phased-approach.¹⁷ Additionally, the circulation of secured digital assets is allowed as part of the same legislation. These are crypto assets that provide rights to tangible, intellectual services, and assets, except for money and securities. These are more commonly known as tokenized assets, but the definition does not include tokenized securities or stablecoins. Although a legislative regime exists, as of April 2023, a regulatory framework has not been developed to permit the circulation of secured digital assets.

15. Authorities have published a roadmap for the development of a crypto asset and blockchain industry within Kazakhstan. Working closely with the private sector, authorities in Kazakhstan have developed a roadmap toward a hybrid infrastructure in financial services that combines elements of traditional finance and blockchain infrastructure, this includes a “green paper” published jointly by the National Bank of Kazakhstan (NBK) and Binance on the future of DeFi in Kazakhstan. The first step of this roadmap was the development of a pilot project for crypto assets, followed by financial and crypto literacy programs before moving toward national regulatory frameworks that ensure interoperability, with the potential for a CBDC, tokenization of real sector assets, and the development of DeFi services.

16. While the government and some authorities support a more open approach to crypto, other authorities are more conservative. The government has taken an approach to growing and fostering a crypto ecosystem, with aims to create a blockchain based infrastructure in certain areas of financial services. The AIFC is a key part of this approach as it allows for the experimentation of crypto-based services. Some authorities (like the Agency for Regulation and Development of the Financial Market (ARDFM)) have taken a cautious approach to crypto asset activities or to allow the firms subject to their oversight to engage with crypto assets, given the risky nature of many types of crypto assets and a potential conflict against first order mandates such as financial stability, market integrity, and market conduct.

Box 2. Kazakhstan’s Crypto Taxonomy

There is currently no common global taxonomy for crypto assets with most jurisdictions setting out their own approaches to categorizing crypto assets, often based on structural features, common groupings of risks, and use cases.

The Law on Digital Assets in the Republic of Kazakhstan sets out the following categories:

- Digital asset—property created in electronic-digital form with the assignment of a digital code, including the use of cryptography and computer calculations, registered and provided with the immutability of information based on the technology of a distributed data platform.
- Secured digital asset—a digital asset registered through a digital platform for the storage and exchange of secured digital assets, which certifies the rights to tangible, intellectual services and assets, with the exception of money and securities.

¹⁷ Miners will be expected to deposit 50 percent of their mining rewards in AIFC-registered exchanges by January 2024, and 75 percent of their mining rewards by January 2025.

Box 2. Kazakhstan's Crypto Taxonomy (concluded)

- Unsecured digital asset—a digital asset received in the information system in the form of a reward for participation in maintaining consensus in the blockchain and not expressing anyone's monetary obligations that can be traded in digital form on a digital asset exchange.

These categories broadly reflect common global groups, although the concept of a secured digital asset is relatively unique. A digital asset is broadly the equivalent of a digital asset or crypto asset as set out by the FSB, various standard setting bodies, and global bodies such as the IMF.

An unsecured digital asset is similar to the concept of unbacked tokens, crypto assets, or cryptocurrencies. Often, this category includes crypto assets with the largest market capitalization such as Bitcoin and Ether, although what is considered an unbacked crypto asset might differ between jurisdictions. In Kazakhstan, stablecoins such as Tether and USDC are considered unsecured digital assets.

A secured digital asset is broadly equivalent to a tokenized asset (i.e., a tokenized representation of a real-world asset). Uniquely, this category does not include certain tokenized assets like tokenized securities and security tokens, nor does it include stablecoins, some of which may be tokenized representations. An example of a secured digital asset would be a tokenized piece of real estate.

The taxonomy used by AFSA in the AIFC is slightly different; a crypto asset is described as a digital representation of value that:

- can be digitally traded and functions as (a) a medium of exchange; or (b) a unit of account; or (c) a store of value,
- can be exchanged back-and-forth for fiat currency, but is neither issued nor guaranteed by the government of any jurisdiction, and
- fulfils the above functions only by agreement within the community of users of the digital asset; and accordingly,
- is to be distinguished from fiat currency and e-money

This definition is more similar to e-money-like tokens, which is an approach several authorities have taken, although in some jurisdictions for a token to be considered an e-money-like token while being separate from e-money, a direct claim on the issuer, a requirement to redeem on demand at par, and a requirement to back with a single fiat currency are also important.

Sources: Law of Digital Assets in the Republic of Kazakhstan

FSB: Regulation, Supervision and Oversight of Crypto-Asset Activities and Markets

IMF Fintech Note: Regulating the Crypto Ecosystem—the case of unbacked tokens

IMF Board Paper: Elements for Effective Crypto Policies

17. A pilot project for crypto assets has been launched in the AIFC, a jurisdictionally separated international financial center. The “Law on the Astana International Financial Centre” establishes the AIFC as an international economic free zone based on English and Welsh common law, with an aim to attract investment and grow capital and digital markets. AFSA is the financial regulator in the AIFC. As part of its aim to grow digital markets, AFSA, in conjunction with domestic authorities such as the MDAI, the NBK, and ARDFM, have launched a pilot project to foster the development of a crypto asset market. This project allows the circulation of crypto assets within the AIFC, through registered local exchanges, serviced by commercial banks located in the Republic of Kazakhstan. Unlike the approach of many international centers that aim to increase capital inflow and attract new investment serving global users, the crypto framework seems largely to serve the domestic market and any impact is likely to be on domestic banks and users.

18. Authorities deliver crypto oversight in line with their mandates. The MDAI is tasked by the President of the Republic with coordinating the overall approach to crypto assets. It also has oversight of crypto mining, as well as secured digital assets – both of which are achieved through the “Law on Digital Assets”, although no regulatory framework underneath that legislation exists for the latter. The ARDFM regulates the banks that serve crypto exchanges as part of the AIFC pilot project and oversees compliance with financial integrity rules. The NBK is tasked with regulating payment systems, including any potential future crypto payments infrastructure, as well as considering the macro financial implications of crypto assets. The Kazakhstan Interbank Settlement Centre (KISC) and the Payments and Financial Technologies Development Centre (PFTDC), both subsidiaries of the NBK, focus on digitization and financial innovation. Both entities are expected to merge to create a new National Payment Corporation for Kazakhstan (NPC) by June 2023. AFSA leads on the implementation and delivery of the pilot project for crypto assets including the regulation and supervision of crypto asset service providers, working closely with its domestic partners. The Agency for Financial Monitoring (FMA) is tasked with policing the crypto asset prohibition within Kazakhstan, as well as monitoring and enforcing against entities that might contravene the prohibition.

19. Coordination occurs through an interdepartmental working group that involves key authorities. To facilitate the operation of the pilot project, minimize spillover effects into domestic markets, and ensure comprehensive oversight of the domestic prohibition and experimentation within AIFC, an interdepartmental working group at Deputy Chair level involving the AFSA, the NBK, and the ARDFM works closely together, supplemented by an exchange of information tripartite agreement. The group also includes the FMA and the Association of Financiers of Kazakhstan. While the group met regularly in the lead up to the launch of the pilot project, meetings are now ad-hoc and infrequent, in response to a demand or necessity. AFSA also has a Memorandum of Understanding (MoU) with the FMA on the financial integrity implications of crypto assets.

20. The NBK and ARDFM work closely to manage risks to domestic banks from the pilot project. Both authorities are mandated by the “Law on Digital Assets in the Republic of Kazakhstan” to harmonize the rules for the interaction of crypto exchanges registered in the AIFC with commercial banks located in Kazakhstan. The ARDFM sets requirements in relation to market

conduct, due diligence, and financial integrity matters, while the NBK focuses more closely on monetary policies and payment systems.

21. The Fintech Division of AFSA leads on the work related to crypto regulation in the AIFC. As of April 2023, the division consists of eight members of staff, including a director that reports directly to the Chief Executive Officer of AFSA. The division works closely with other divisions within AFSA, including the Regulatory Office Division, the Enforcement Division, the Policy Division, and the Legal Division.

22. The ARDFM uses existing supervisory structures to monitor crypto risks. Given the relatively small size of the domestic crypto market, ARDFM uses existing supervisory structures to monitor and respond to crypto risks. This sensible approach allows supervisors to contextualize crypto risks as part of their broader supervisory duties, while receiving specialist in-house training to improve their knowledge of crypto and the underlying technology. Should markets grow more quickly and ARDFM-regulated banks gain greater exposure to crypto assets, authorities might need to rapidly increase their resources, but a separate crypto / fintech unit is not necessary.

23. The NBK also uses existing structures to monitor and respond to crypto risks. The NBK determines that each function within the authority should have consideration of crypto (and wider fintech) matters, although the Payment Systems Department is the key unit that leads and responds on risks that involve crypto assets. The department also chairs an internal task force that considers the future policy of the central bank and includes members from departments such as Monetary Policy, Payment Balance (currency regulation), and Financial Monitoring (currency control).

24. The KISC and PFTDC expect to merge and add additional staff members for the proposed new NPC. As of April 2023, the KISC has 150 staff members while the PFTDC has 22. The proposed NPC entity will add additional resources and expects to have 250 staff working across a broad remit that includes Real-Time Gross Settlement, functioning of the interbank system of money transfers and interbank clearing, Faster Payments, Digital ID, Open Banking, SWIFT, Secured Data Exchange, as well as other projects such as improving data analytics. Currently, approximately 10 staff work on blockchain based projects, including a proposed CBDC, although there is no pure in-house blockchain specialists.

25. The MDAI has a specific division that concentrates on crypto markets. The Division for the Development of Crypto Assets consists of four staff that are generalists but are subject to monthly trainings on crypto assets by working with global donors and private crypto entities.

26. The FMA is split into two broad areas, with crypto focused staff working in the Financial Intelligence Unit (FIU) and the Economic Investigations Service (EIS). Within the FIU there are six staff members that focus on crypto assets, and these are generalists that are subject to training by international donors. The EIS has staff spread out through 20 regions in Kazakhstan and each region has at least one staff member that has a crypto specific focus. While there are no crypto specific roles, the FMA aims to attract IT graduates from universities to help design analytical

systems and software to help monitor crypto markets. The FMA also has partnerships with third-party vendors to provide blockchain analysis software.

27. AFSA has signed Fintech Cooperation Agreements but there is little involvement from domestic authorities in international fora related to crypto assets. While ARDFM is a member of IOSCO and the NBK is a member of certain Basel Committee working groups, neither authority plays a proactive role in the crypto (or broader fintech) work being carried out by these organizations. Although they are not members of the relevant subgroups in those bodies, authorities aim to monitor the latest challenges and recommendations of the various SSBs as part of their broader membership.

28. Authorities should work to improve domestic collaboration and international cooperation. The interagency working group provides a foundation from which authorities might want to improve their domestic collaboration. Currently, the working group meets infrequently on an ad-hoc basis, but authorities should consider a more regular form of collaboration that allows authorities to monitor trends, identify risks and quickly determine regulatory responses. The interagency working group should also set up subgroups consisting of working level staff that can explore specific issues in more detail, reducing the burden for individual entities. This will be more important if authorities are eventually granted powers to regulate crypto markets within Kazakhstan. Authorities should also improve international cooperation, primarily through playing more proactive roles in fintech related international fora; this includes joining fintech related working groups or subgroups as global and standard-setting bodies, where feasible. Authorities may want to consider signing Fintech Cooperation Agreements with peer regulators in jurisdictions where authorities face similar crypto market conditions to better monitor developments and improve information sharing.

AREAS OF FOCUS AND KEY RISKS

A. Impact of AIFC Pilot Project on Domestic Financial Markets

29. The pilot project on crypto assets has important ramifications for domestic financial markets. The pilot project, although located in the Fintech Lab of AFSA in the AIFC, involves commercial banks and investors based in the Republic of Kazakhstan and so there is potential for impacts on domestic financial markets (Box 3). The pilot project allows for entities registered within the AIFC to offer, trade, and store unsecured digital assets while being subject to prudential and conduct regulation.

Box 3. The AIFC Fintech Lab

The AIFC Fintech Lab is a product testing regulatory sandbox that provides an environment for entities to test and develop fintech driven innovations in a live market while benefitting from some regulatory reliefs and exemptions.

To be a part of the Fintech Lab, entities must meet the eligibility criteria, which is split between “testing” and “developing” activities. If an application is accepted, the firm must first be licensed, and during the testing phase the firm is subject to close supervision and ongoing monitoring, with the expectation that the firm will

Box 3. The AIFC Fintech Lab (concluded)

submit both interim reports and a final report. At the conclusion of the test, a testing firm must either migrate to a full authorization, continue as a non-regulated entity, or cease carrying out business.

Sandboxes are commonly used by authorities around the world to allow the private sector to test new business models and technologies with real consumers (product testing sandboxes), or new rules and regulations (policy sandboxes). Often, sandboxes place restrictions on the testing firm to manage risks to users and markets. These can include restricting the level of a certain activity the firm can conduct (e.g., volume of transactions), the type of user that can test their products (e.g., through suitability tests), or the type of product or service testing firms can deliver (e.g., restricting leverage-based products).

While many sandboxes have the option of offering some regulatory relief, this approach can lead to poor outcomes for testing firms, users, and markets, and domestic authorities should ensure they are able to manage any contagion risks where users or banks testing in the sandbox might be located in the domestic market. Regulatory relief, if implemented incorrectly, can open users and markets to unnecessary harm, increasing reputational risk for the authority. Where multiple entities, particularly large firms, are involved in a test, the potential exists for risks to financial stability. From a testing perspective, it can also reduce the usefulness of the test as neither authorities nor the firm have accurately reflected real market conditions (to which the firm will be subject to if a test is successful).

Sources: AIFC Financial Technology Rules, AFSA Fintech Lab Supervision Procedures, AFSA Fintech Lab Authorization Procedures, and [IMF Fintech Note: Institutional Arrangements for Fintech Regulation](#): Supervisory Monitoring.

30. The pilot project has the potential to absorb domestic crypto mining rewards. The growth of the crypto mining industry in Kazakhstan created an environment where crypto mining entities could locate their hardware within Kazakhstan, use the local energy supply with subsidized rates, generate Bitcoin rewards, and store these rewards with international crypto exchanges. These rewards could then be exchanged to fiat currencies other than the Tenge. While providing a small amount of tax income from white miners, this approach is likely to have supported capital outflows. Under the “Law on Digital Assets in the Republic of Kazakhstan,” crypto miners are mandated to store up to 75 percent of their mining rewards (in a phased approach) with crypto exchanges licensed in the AIFC; this aims to keep rewards within domestic markets, which are ultimately cashed out into Tenge. To achieve this, authorities felt the need to create an environment that supports the launch of domestic crypto exchanges, and the pilot project in the AIFC allows for this to happen in their international financial center, while continuing to prohibit unbacked crypto assets within the domestic market.

31. Authorities are using the pilot project as a first stage to creating a more tokenized ecosystem in Kazakhstan. The ability to work closely with crypto entities and domestic banks provides authorities with a better understanding of crypto markets, the operation of crypto entities, and their impact on financial stability, user protection, and market integrity. It can help authorities determine the potential benefits and risks of crypto assets, their underlying technology, and any potential future approach to broadening the pilot project. The pilot project was initially set to run

until December 2022 but has been extended until the approval of the mechanism for interaction between AIFC registered crypto exchanges and commercial banks registered in the Republic of Kazakhstan. If the project is deemed successful, AFSA, in coordination with the NBK and ARDFM, will launch a full regulatory framework within the AIFC for regulating the inter-jurisdictional crypto-fiat system.

32. The pilot project has created a new crypto ecosystem within the AIFC. As of April 2023, there were nine crypto asset entities licensed by AFSA. Seven of these crypto entities offer exchange and custody services, while two offer intermediation (brokerage) and custody services although not all these entities are live. These entities serve 110 professional clients and 6363 retail clients, with most of these clients being resident in Kazakhstan. Since launching, the pilot project has facilitated \$6 million worth of crypto transactions until April 2023. Entities registered within the AIFC may also have exposures to crypto assets.

33. For the purposes of the pilot project, AFSA has taken a seemingly conservative approach to risk management, although supervision can be difficult. To minimize risks, the customer journey when interacting with AIFC-registered crypto exchanges contain some frictions but allows authorities to have more effective oversight. To purchase crypto assets, users must first open a bank account at a domestic commercial bank that is part of the pilot project (which is subject to customer due diligence), and an account with AIFC-registered crypto exchanges (which are also subject to customer due diligence). In the absence of a central clearing counterparty, settlement risk is mainly mitigated by the pre-funding requirement of fiat and crypto assets of investors. When a user wants to purchase a crypto asset, fiat funds are transferred from the bank to the exchange and the user can carry out the transaction. To generate liquidity, crypto exchanges are also expected to act as market makers, although in practice these exchanges rely on global exchanges as market makers. When a transaction is completed, the purchased crypto asset is stored in a digital wallet (usually with the exchange), while the fiat funds are exchanged with seller, which holds separated fiat accounts with domestic commercial banks involved in the pilot project. However, it can be difficult to supervise a market as new and challenging as that of crypto assets, and one exchange mentioned that private keys stored in cold wallets can be stored overseas in a pool where the underlying crypto assets can potentially be lent out.

34. There are restrictions on certain activities, products, and crypto assets. The pilot project only allows for entities to trade and store crypto assets, and additional activities such as staking, lending, or yield investing are prohibited. It restricts retail users from investing more than \$1,000 each calendar month, to a maximum of \$12,000 each year, and does not let customers transfer assets to anonymous wallets, non-AIFC-registered exchanges, exchanges not served by domestic commercial banks, or conduct peer-to-peer transfer (miners are exempt from financial restrictions). Crypto exchanges are also not able to offer margin or leverage services to users. AFSA is able to restrict the type of crypto assets that are listed on a crypto exchange subject to its oversight.

35. The sandbox approach also grants certain waivers from existing rules. There is a waiver on the requirement to maintain a minimum capital (regulatory capital) when providing custody services, although there is no complete waiver of minimum capital requirement, as all companies

operating under FinTech Lab environment are required to have minimum capital that must be equivalent to at least 12 months of operational expenses.

36. Crypto exchanges located in the AIFC are subject to prudential and conduct regulation. All entities carrying out crypto asset activities in the AIFC are subject to AFSA's regulatory framework for crypto assets (Box 4). The current crypto framework relies on existing regulation for financial market participants, and rules are spread across several AIFC acts. The acts provide coverage of key crypto asset activities including trading and storage. The rules are approved by AFSA but coordinated with the MDAI, NBK, ARDFM, and the FMA. On prudential and conduct regulation these rules include, but are not limited to, capital requirements, governance requirements including managing conflicts of interest, risk disclosures and complaints management, cyber and operational resilience (including a designated Chief Technology Officer), and safeguarding and segregating client assets. The rules ensure that only crypto assets approved by AFSA can be listed on AIFC-registered crypto exchanges.

Box 4. Crypto Regulation in the AIFC^{1/}

AFSA, as the competent regulatory authority in the AIFC, is charged with the regulation and supervision of crypto assets as part of the pilot project. AFSA applies existing regulation to crypto assets contained within the following acts:

- AIFC Financial Services Framework Regulations (in its entirety)
- AIFC General Rules (in its entirety)
- AIFC Conduct of Business Rules (in its entirety for custody businesses, and COB2, COB3, and COB17 for other crypto asset entities)
- AIFC Anti-Money Laundering and Counter-Terrorist Financial Rules (in its entirety)
- AIFC Authorised Market Institution Rules (AMI1, AMI2, AMI5, and AMI6)
- AIFC Market Rules (in its entirety)
- AIFC Prudential Rules for Investment Firms (in its entirety)
- AIFC Financial Technology Rules (in its entirety)

AFSA is currently consulting on enhancing the digital asset frameworks to strengthen governance requirements, operational and cyber resilience, safekeeping and segregation of client assets, conflicts of interest for multifunction crypto entities, disclosure, pre and post trade processes and settlement risk. The consultation also proposes to allow users that own crypto assets to more easily be certified as professional investors, as well as making the process of listing a crypto asset on a crypto exchange easier.

Box 4. Crypto Regulation in the AIFC (concluded)

Any potential changes would likely occur ahead of transitioning from a pilot project to a live regime. As part of the consultation, AFSA is considering creating a bespoke crypto asset rule book that will allow them to better tailor their regulation to address the characteristics and risks of crypto markets.^{2/}

^{1/} This TN does not assess the efficacy of the crypto asset regulatory framework in the AIFC as it is not within the perimeter of Kazakhstan's domestic financial regulatory structure, which is the object of this financial sector assessment (FSAP). However, given the growing interlinkages with the domestic market, as well as potential international linkages, it is important that the framework is sound and robust to protect against risks to user protection, market integrity, and potentially financial stability. This box provides a description of the regulation of crypto-related activities in the AIFC.

^{2/} Following the conclusion of the mission, in August 2023, AFSA published consultations on regulatory frameworks for security tokens and stablecoins.

37. AFSA aims to take a proactive approach to monitoring crypto activities within the AIFC. AFSA uses a traditional template-based approach to supervision through periodic reporting in-line with their supervision for firms operating within the Fintech Lab, combined with newer RegTech solutions such as blockchain analytics firms to better tailor their monitoring to crypto markets. The authority has taken three enforcement actions for compliance failures in relation to AIFC-registered crypto entities, including two compliance failures at a single exchange, and a notice to delist a crypto asset that acquired privacy enhancing features as part of a code update.

38. Despite the pilot regime, and prohibition on the circulation of certain crypto assets in domestic markets, some users are still buying and selling crypto assets on non-registered exchanges. Crypto exchanges registered in the AIFC serve a smaller market and therefore can't offer liquidity that is as deep as in international exchanges, which results in broader spreads and poorer prices for users. Furthermore, these exchanges are limited in terms of number / type of crypto assets that they offer to users, as well as placing restrictions on volume and location of transfers. This provides users with incentives to use international exchanges, and they are able to achieve this, evading the prohibition through various methods such as the use of virtual private networks, cross-border intermediaries, and potentially even through miscoding of transfers at domestic banks.

39. AIFC-registered crypto exchanges might suffer from shallow liquidity. Some crypto exchanges rely heavily on Bitcoin miners depositing their holdings in AIFC-registered crypto exchanges to create liquidity. One exchange mentioned that up to 60 percent of their Bitcoin liquidity is generated by Bitcoin miners depositing their mining rewards with the exchange, although such activity can fluctuate depending on the price of Bitcoin. Liquidity for other crypto assets is created either by market makers (global exchanges) operating on the exchanges, through connections with global exchanges including shared order books, or where the AIFC-registered exchange is able to "tap" the liquidity of the larger exchange through master accounts or partnerships.

40. There are likely to be connections between AIFC-registered crypto exchanges and international exchanges. While there are requirements on AIFC-registered crypto exchanges to have legal separation from any parent companies—whether it is through their role as market makers, providers of liquidity through master accounts and shared order books, or shared systems and controls with parent companies—there are connections between AIFC-registered crypto exchanges and larger international crypto exchanges. These connections have the potential to generate risks to domestic exchanges, particularly where those large exchanges hold considerable market power or are not subject to conduct and prudential regulation in any jurisdiction. These connections also undermine the domestic prohibition as global entities might serve domestic users without AIFC-registration but may partner with AIFC-registered exchanges or have subsidiary operations within the AIFC, while still offering access to the global exchange. Authorities must be able to monitor these interconnections and take action where necessary.

41. Risks to domestic markets from the AIFC pilot project remain limited but have the potential to grow. As the project transitions from a pilot to the live launch, the potential exists for market legitimization and the growth of the circulation of crypto assets within the domestic market, particularly if global crypto prices were to increase. While the domestic market remains small and the project remains in a pilot stage, risks to domestic markets are well contained. A rapid growth of the market, or greater interconnections with domestic commercial banks could result in a buildup of risk, and domestic authorities should ensure this risk is monitored and mitigated ahead of any crystallization. Where growth is impacting the domestic market, authorities should ensure they have the appropriate powers and tools to oversee crypto markets. The potential exists for AFSA to alter certain restrictions or constraints as the project moves from a pilot to a live launch. If such changes impact users or banks in Kazakhstan, domestic authorities should be in a position to take action.

42. Impacts might be greatest if crypto exchanges begin to offer additional services, and restrictions on client investments are lifted. Currently, exchanges are restricted from offering additional services such as lending, staking, and investment – but do offer market making. Crypto exchanges are also restricted from offering leverage-based products and services, and clients are restricted from investing more than \$1,000 each calendar month, but the small number of users that are trading crypto assets are using their full allowance, so the potential exists for these users to invest significantly more, should restrictions ease. One exchange mentioned that on their global platform where residents of Kazakhstan are still accessing crypto assets, despite the prohibition, they invest on average \$5000 a month. Where additional products or services are offered, authorities must be able to manage the risk by ensuring regulation is imposed along the activity – risk spectrum, such as greater prudential requirements, suitability tests and governance requirements. Domestic authorities should proactively monitor the impact of exchanges offering market making services as an additional activity and consider whether their investors and banks might be exposed to market integrity risks. Risk management should be proportionate to the size, risk, complexity, and systemic importance posed by the crypto market in Kazakhstan.

43. In the meantime, authorities should ensure they are working closely together in the domestic and international market. The involvement of domestic authorities and AFSA in

coordinating the “Rules of pilot project” has provided a foundation for interagency coordination across both markets. The presence of MoUs, agreements and the interagency working group ensures dialogue between authorities; moreover, the ability of AFSA to share regulatory reporting submissions from AIFC-registered crypto exchanges with domestic authorities ensures that authorities have an up-to-date overview of emerging risks. It is important that authorities continue to cooperate and coordinate with each other, and, with evolving business models, the type of cooperation also evolves to ensure that new risks are appropriately addressed. Such cooperation might include formalizing and regularizing the interagency working group on crypto assets. This might also entail domestic authorities taking a more active role in assessing the potential risks from a growing number of retail users. Authorities might also request further information from crypto exchanges to help improve risk assessment.

44. Should crypto markets in Kazakhstan grow, domestic authorities should be more actively engaged in the regulation and supervision of crypto markets. Should the domestic market grow, closer collaboration between all authorities will be required including domestic authorities having greater oversight of crypto asset regulation, with a firm legal underpinning. To achieve this, domestic authorities, as well as AFSA, should take clear steps to upskill their staff, including through joining and playing a pro-active role in global and standard-setting bodies, receiving training from a mix of public and private entities, and working closely with peer regulators, including through Fintech Cooperation Agreements.

45. Authorities should increase user education, providing clear information on where regulatory protections exist. While users trading with international exchanges receive more competitive prices and a larger variety of crypto assets to buy and sell, they do so against current prohibitions at the expense of regulatory protections. Greater user awareness of these risks will likely allow them to make more informed decisions. Economic incentives might still result in users accessing crypto markets through non-registered international exchanges, but users will do so clearly knowing the risks. Conversely, it might result in some users migrating to registered exchanges. Importantly, aligning approaches to crypto assets in both domestic and international markets could improve messaging. Given that the circulation of crypto assets is prohibited in Kazakhstan, but residents can still purchase crypto assets in the AIFC, there is a risk of confusion and so a consistent approach to crypto assets is preferable over the longer-term.

B. The Role of Domestic Banks in Crypto Markets

46. The pilot project introduces interconnections between AIFC-registered crypto exchanges and domestic banks. As of April 2023, five commercial banks were involved in the pilot project and these banks are subject to oversight by domestic regulatory authorities. These banks provide services for crypto asset exchanges located in the AIFC, other AIFC participants that might hold crypto assets, and investors from both the AIFC and domestic market that engage with the pilot project. This allows crypto exchanges to have access to fiat settlement services, while also ensuring that transactions are subject to the national currency control regime.

47. There are risk management frameworks in place for banks to minimize impacts to domestic financial markets. The “Rules for the formation of the risk management and internal control system for commercial banks” require enhanced due diligence that banks are expected to carry out when interacting with crypto asset entities registered in the AIFC. The “Rules of the Pilot Project” require that fiat funds of customers are placed in customer accounts of crypto exchanges opened in commercial domestic banks. Banks are not allowed to use fiat funds, as well as crypto assets of customers or crypto exchanges for their own purposes, and these funds are ringfenced from the banks’ other funds.

48. Banks are mostly engaging with the pilot project to improve their knowledge of crypto markets. Most banks have not experienced significant customer demand for crypto assets, with a small number of clients requesting further information or access to crypto markets. Banks have largely joined the pilot project to get hands on experience with providing services to crypto markets.

49. Most banks are reluctant to engage more deeply in crypto markets. Commercial banks highlighted the risky nature of crypto assets, particularly its volatility, as reasons for their conservative approach. Many banks are unsure whether crypto markets will become embedded within financial markets and are reluctant to expend significant resources in this area. Banks also felt that a lack of regulatory certainty is another reason to avoid significant experimentation in this space. Only one bank was actively experimenting with blockchain for their internal processes.

50. Banks report to ARDFM and the NBK, while crypto exchanges report to AFSA and the NBK. As part of the pilot project, banks are required to report directly to both ARDFM and the NBK. Crypto exchanges report to AFSA, (and other regulatory authorities depending on mandate, for example, the FMA on AML/CFT submissions). AFSA provides access to this regulatory reporting of crypto exchanges to the NBK to assess threats to the financial stability of the country. Where necessary, reporting is shared with partner authorities. This reporting extends to the number of retail and professional clients of a crypto asset exchange, volume of transactions, breakdown of crypto asset trading pairs, and banks used to settle fiat transactions. Currently, exchanges submit reports monthly to AFSA, while banks submit reports monthly on their crypto asset activities to their authorities. Domestic authorities also have the powers to cut off fiat rails for AIFC-registered crypto exchanges based on returns of reporting requirements. However, reporting is limited to information pre-agreed in the Tripartite Agreement between AFSA, ARDFM and the NBK. Should crypto markets grow quickly, following the conclusion of the pilot project, domestic authorities may need access to further information, or may have to play a more proactive role in the regulation and supervision of crypto assets, given that impacts will be largely felt by residents and banks in Kazakhstan.

51. Banks can quickly terminate business relations with a crypto exchange if risks grow quickly. The regulatory requirements within the framework of banking legislation and AML/CFT legislation regarding the formation of risk management systems and internal compliance controls allows domestic banks to terminate the offering of their services to AIFC-registered crypto exchanges in response to scenarios where risk increases beyond their tolerance or appetite, particularly in relation to financial integrity concerns.

52. Domestic banks are not able to invest in crypto assets or crypto asset entities, but there are exceptions. Domestic commercial banks are not allowed to have any direct or indirect exposures to crypto assets, although entities registered and with branches in the AIFC can have exposure to crypto assets as long as they limit their activities to the AIFC. Domestically, this means that banks can neither hold crypto assets on their balance sheet, nor invest in companies that engage with crypto assets. There is one domestic bank registered in the AIFC that can have direct and indirect exposure to crypto assets as a result of registering in the AIFC – although this is subject to clearance from domestic bank regulators. Banks can invest in firms, including fintech driven firms, and although the ARDFM prohibits those firms, or clients of those firms to engage in crypto assets, it accepts that even with the best of monitoring there is likely to remain some residual risk of small indirect exposures.

53. Authorities do not believe there are large risks from potential capital outflows using crypto assets. The small size of crypto markets in Kazakhstan, combined with the requirement for registered crypto mining firms to deposit a proportion of their mining rewards in AIFC-registered crypto exchanges, and the ability to impose currency control regulation on banks that act as fiat settlement rails has led authorities to conclude that there are no large risks to capital outflows. While risks to capital outflows remain small now, if crypto prices rise quickly, or should the Tenge lose value relative to other currencies, and particularly the dollar, capital flight could be made easier through the operation of international crypto exchanges, and potentially through AIFC-registered exchanges.

54. As key entry points to domestic crypto markets, targeted restrictions on the ability of banks to facilitate crypto transactions can dampen market growth. While broad prohibitions might be difficult to enforce, limiting the ability of banks to facilitate crypto asset transactions can keep market size manageable. However, should banks see a growth in demand from customers to purchase crypto assets, authorities might transition to allow banks to provide that service and avoid activities moving underground where they are less transparent, and users may be at greater risk of harm. This would require legislative change, and while it should not be a regulatory priority, authorities should monitor the evolution of the crypto market to determine whether such an approach is warranted in the future.

55. Bank exposures to crypto assets should be limited in line with developing global standards. Currently, banks are not able to have direct or indirect exposures to crypto assets in Kazakhstan, and there appears to be little demand from banks to take part in such activities. AIFC-registered banks can hold crypto assets, but domestic authorities do not allow domestically regulated banks to carry out activities involving crypto assets. However, should demand from banks rise, authorities may consider allowing banks to have exposures to crypto assets; in such a case, though, the exposures should be subject to developing global standards and guidelines, in particular the BCBS standards on the prudential treatment of bank exposures for crypto assets. However, such a change would require the legalization of crypto assets in domestic markets and should only be done following extensive risk assessment, robust risk management and appropriate

capital and liquidity requirements in line with developing international standards in relation to banks under the oversight of domestic authorities.

56. There are also connections between exchanges and banks. Most exchanges and banks in the pilot project are separate legal entities with little connections between the two sets of entities other than contractual relationships for the commercial bank to provide fiat settlement rails. However, some exchanges might have the same beneficial owner as commercial banks, and this could introduce complex interlinkages and new risks. Domestic authorities that regulate banks should ensure effective conduct rules are in place, particularly around transparency, disclosure and conflicts of interest to minimize risks to markets and consumers.

C. Enforcement of Prohibition

57. The FMA monitors the efficacy of the domestic prohibition of unsecured digital assets. The prohibition of the circulation of unsecured digital assets in Kazakhstan is enforced by the FMA. This prohibition extends to using both centralized and decentralized crypto asset entities, as well as peer-to-peer transactions within the domestic market.

58. The FMA has some powers to enforce against circumvention of the prohibition of unsecured digital assets in Kazakhstan. The FMA has some administrative and criminal powers to enforce against firms and users that circumvent the prohibition, and some enforcement action has been taken recently against crypto exchanges serving the domestic market without being registered in the AIFC. There are no crypto specific clauses in legislation to allow enforcement action, and so enforcement is carried using broader administrative codes on illegal entrepreneurship and broader criminal codes.

59. Monitoring and enforcement of crypto activities is limited. Given the small size of the market and the authorities having competing priorities, there continues to be crypto exchanges that serve the local market despite not having AIFC registration. The FMA believes additional enforcement powers specific to crypto assets, and the transition from a pilot regime in the AIFC to a live regime, will allow it to play a more proactive role in supervising and enforcing against the prohibition. Some market participants mentioned the prohibition existed more in theory than practice and one market participant estimated that less than 2 percent of crypto related fraud involving domestic markets is presented to courts.

60. Prohibitions can dampen market growth, but the incentive for circumvention is strong. Broad bans and prohibitions can impact the size of the market, and it is likely that the prohibition on the circulation of unsecured digital assets within Kazakhstan has impacted market size. However, prohibitions can be circumvented through various means and an active "underground" market approximately 100 times the size of the legitimate AIFC market for the circulation of crypto assets exists. Currently the prohibition, whether effectively enforced or not, is likely to have added frictions for users to purchase crypto and dampened growth. However, should crypto markets grow rapidly, it could be present difficult challenges for authorities given fast growing risks to domestic markets and users. An alternative approach might provide domestic

authorities with the relevant powers to regulate crypto markets, or to collaborate with AFSA more closely in line with respective mandates. While this would legitimize the market, over the longer-term, and particularly if the domestic market grows post pilot project, an effective regulatory regime will provide greater protection to market integrity and user protection.

61. Legalizing the circulation of crypto assets in domestic markets should not be a regulatory priority, but authorities should be prepared to make such a transition. Given the challenges of prohibition and the largely domestic nature of the pilot project, authorities should consider upskilling their supervisors, improving domestic collaboration and cross border cooperation, and preparing institutional structures to ensure they are able to quickly provide oversight of crypto markets if empowered by the relevant authorities. Consistent, comprehensive, and coordinated regulation in line with peer global regulators is preferred to broad bans and prohibitions, but these can be supplemented by targeted restrictions. In particular, restricting the use of crypto assets for payments and restricting the marketing of crypto assets are sensible steps for managing growth. Restricting the ability of banks to easily facilitate crypto transactions can also help to manage growth, however, if crypto asset prices rise, restrictions on banks could lead to consumers using alternative means to access crypto markets, which could generate greater risks and such a restriction should only be transitional until a live domestic regulatory framework is implemented.

62. If authorities decide to transition to regulation, it should be done in line with global standards and best practice, and in response to increasing risk in domestic crypto markets. A transition from prohibition to comprehensive regulation should be made in response to a growing domestic crypto market (retail and institutional), upskilling of supervisors, the acquisition of appropriate legal powers, and as part of a global transition to coordinated prudential and conduct regulation on crypto markets. In the absence of these factors, authorities risk prematurely legitimizing the market, if they move too quickly and removing the frictions created by prohibition that has managed market growth. Regulation should be implemented in line with developing global standards and should reflect the risk and complexities of different business models. All entities in crypto markets carrying out key activities should be subject to regulatory oversight, and multifunction crypto intermediaries that carry out multiple activities should be subject to greater prudential requirements and oversight. Regulation should aim to ensure the stability and soundness of financial markets, market integrity, financial integrity, and market conduct including consumer protection. Regulation should ensure effective risk management, governance frameworks, reporting requirements, disclosures and transparency, safety and security of users' assets, as well as addressing dependencies and interconnections within crypto markets and broader financial services.

D. Circulation of Secured Digital Assets and Crypto Asset Roadmap

63. The Government of Kazakhstan has issued a roadmap toward a greater tokenized economy. This five-step processes begins with the pilot project in the AIFC, with aims to improve financial and digital literacy across Kazakhstan, create domestic regulation around crypto to fiat channels, implement a digital-financial assets and CBDC bill, and improve international cooperation.

Eventually, the aim is for a national CBDC or stablecoin to act as a settlement instrument, including for DeFi services, and tokenization of real sector assets.

64. As part of the path toward greater tokenization, authorities allow secured digital assets to circulate within Kazakhstan. The “Law on Digital Assets” allows for the circulation of secured digital assets – these are more commonly known as tokenized assets. The MDAI is responsible for oversight of secured digital assets and the “Rules on the Issuance and Turnover of Secured Digital Assets” sets out the key requirements for issuers and entities that support the circulation of secured digital assets in Kazakhstan. The MDAI determines which secured digital assets are able to circulate within domestic markets through a “green list” of permissible crypto assets.

65. There currently does not exist a comprehensive regulatory framework for entities involved in the circulation of secured digital assets. While there is legislation in place to allow the circulation of secured digital assets in Kazakhstan, as of April 2023, there is no comprehensive regulatory framework for entities that issue, trade, and store secured digital assets, which will be created in upcoming by-laws. Tokenized securities and security tokens are prohibited from circulation within domestic markets.

66. Authorities are unclear on the future regulatory framework for secured digital assets. Despite the legalization of secured digital assets, authorities are not yet clear on which authorities should be the relevant competent authorities. Currently, the MDAI envisions to provide permits to issuers, but are unsure how this would work in practice and is likely to work with financial market regulators to create a regulatory framework. In many jurisdictions, certain tokenized assets would fall out of the purview of financial services regulation, but domestic authorities should monitor closely the development of securitization of such projects which might be easier in tokenized form.

67. Authorities should ensure that there is a mix of public and private entities that help deliver the roadmap. Should authorities decide to move forward with the roadmap, it is important that they consider the views of a broad set of stakeholders. Authorities should not rely on one firm, or a small number of firms, to provide training, infrastructure, research, and the development of a local crypto asset ecosystem. Working with private sector entities is important and can generate positive outcomes, but these partnerships must be transparent, with clear disclosure to markets and users, especially where there are impacts to users, such as authorities having the ability to directly inspect wallets. Authorities should be aware of providing excessive incentives to private sector participants in exchange for subjecting firms to regulation and should regulate in line with their mandates, while aiming to provide a level playing field that does not provide advantages for one, or a small number of, entities. Authorities should be aware that regulation through incentives can lead to reputational risks as entities may still avoid regulatory requirements.¹⁸ Authorities should also consider the unintended consequences of the roadmap facilitating the delivery of new crypto products and services, such as crypto payment cards.

¹⁸ <https://www.cftc.gov/PressRoom/PressReleases/8680-23>

68. Authorities should be prepared for all eventualities. Where a market exists and demand rapidly grows, authorities should have in place comprehensive, consistent, and coordinated regulation, working closely with other financial authorities as well as regulatory authorities from other industries, depending on the underlying asset. Conversely, authorities should consider whether expending significant resources on tokenization is warranted where authorities might have other priorities. Regular third-party independent reviews of blockchain and tokenization projects can help authorities determine ongoing viability of their projects. Aims such as deepening capital markets and improving payments infrastructure might be achieved more cheaply through alternative approaches and technologies.