SOUTH AFRICAN RESERVE BANK

Opening address by Lesetja Kganyago,
Governor of the South African Reserve Bank,
at the launch of the Project Khokha 2 report

6 April 2022

Good day, ladies and gentlemen.

Welcome to the virtual public release of the Project Khokha 2 (PK2) report.

The project was launched in January 2021 as an initiative under the Innovation Accelerator of the Intergovernmental Fintech Working Group (IFWG) led by the South African Reserve Bank (SARB) through its Fintech Unit.

PK2 explored the implications of tokenisation in financial markets through a proof-of-concept (PoC) that issued, cleared and settled SARB debentures using distributed ledger technology (DLT). In doing so, PK2 built on Project Khokha 1 (PK1), which many of you are familiar with.

PK1 was our initial financial technology (fintech) policy exploration and technical trial in the use of DLT for interbank settlements; it explored the use of DLT for interbank settlements by successfully replicating some functions of the South African real-time gross settlement (RTGS) system on DLT.

Innovation in financial services in general, and in *digital* financial services in particular, has made significant progress since the launch of the PK1 report in June 2018.

One of the most noteworthy trends affecting financial markets over the last half-century is what is referred to as ‘dematerialisation’. Following advances in computer technology since the 1960s, financial markets started to move away from recording

securities ownership in a physical ledger to recording ownership on centralised digital ledgers. Over time, this led to centralised financial market infrastructures such as central securities depositories and central counterparties evolving to play a critical role in recording the ownership of assets and, by extension, managing the risks involved in the process of recording the transfer and ownership of value.

Building on this initial convergence towards the digitalisation of financial markets, tokenisation goes one step further by representing different forms of traditional assets (such as money and securities) as tokens on DLT-based platforms. Such DLT-based platforms move the recording of transfer and ownership of value from individual ledgers kept by centralised financial market infrastructures to shared distributed ledgers.

DLT-based infrastructures may require fit-for-purpose money which is appropriate for such DLT-based platforms. This has resulted in several central banks opting to further explore the viability of tokenised central bank money in financial markets. Such exploration – although largely conceptual at this stage – is important given the growth in technological innovation and the use of new forms of payment instruments facilitated by the rapid pace of innovation.

In our experimentation during PK2, two forms of tokenised money were created to allow for settlement.

The first form of money was a tokenised form of central bank money which was a liability of the central bank issued onto a specific DLT owned and operated by the SARB in the PoC. This form of money was used to purchase SARB debentures in the primary market.

The second form of money was issued by commercial banks as a stablecoin and used for purchasing SARB debentures in the secondary market.

In this way, PK2 explored and expanded on how settlement in central bank money and commercial bank money can happen on DLT.

The debenture token market benefitted from having a riskless settlement asset in the form of a wholesale central bank digital currency (wCBDC) used for settlement. This reduced the settlement risk, particularly that payment might fail or might be uncertain due to riskiness in the settlement asset.

The wCBDC prototype developed in PK2 was also the preferred asset in other instances. It served as the reserve asset guaranteeing the value of the wholesale stablecoin issued by commercial banks, and it was used to make payment to debenture token holders upon the maturity of the debenture. The role of the central bank in the tokenised debenture token market was therefore similar to the current role played by the central bank.

Our attempts to learn more about the relevant technology have been guided by a few principles that can also be referred to as ‘the five Ps of fintech policy exploration’.

Purpose-driven projects

From a central banking perspective, practical exploration should always be conducted with a purpose. Central banks should therefore ‘play’ to learn and gain deeper insights into technology-based innovation and its potential impact on their mandate as well as on any relevant policy and regulatory frameworks in the financial system.

I refer to the term ‘playing’ deliberately because our exploration with technology often happens in a controlled environment, whether it is a PoC such as Project Khokha or whether it is a ‘regulatory sandbox’ in the event of live transactions on a confined basis.

Since DLT-based innovation is still quite nascent, it is difficult to reach definitive conclusions on its potential implications. In this way, practical experimentation helps inform our thinking about different scenarios which may arise in the future.

PK2 was an experimental research project. It followed an exploratory approach, which enabled the PoC to contribute to the complex discussion surrounding tokenisation in financial markets.

PK2 does not signal support for any particular technology, nor does it signal any specific shift in policy direction. The project was not about replicating the status quo. Rather, it was about challenging our thinking around designing for a different future.

Playing in collaboration

This has been a guiding principle for much of our work has been the following African proverb: “If you want to go fast, go alone, but if you want to go far, go together.” The technical teams are continuing to explore how they can build different applications in addition to the ones built for the prototypes during the main phase of PK2. This is to ensure that we can get the maximum shared learning out of our collaboration.

The PK2 report is the SARB’s contribution to broader discussions surrounding the regulatory treatment of crypto-assets and financial market innovation. We hope that it provides meaningful insight to the discussions taking place between policymakers and regulators as they continue to consider the most appropriate way to amend the existing domestic legal and regulatory frameworks.

We recognise that digital currency innovation cannot be explored in isolation. The SARB continues to draw on the insights emerging from various initiatives, including (but not limited to) our ongoing study into the feasibility, desirability and appropriateness of a retail central bank digital currency (CBDC), to enrich our understanding of digital currency implications.

It is also important to acknowledge the inherently borderless nature of DLTs and the critical importance of international collaboration. The SARB was a proud participant in the Bank for International Settlements (BIS)-led Project Dunbar, which considered how a multi-CBDC platform could be used for international settlements. The Project Dunbar report was released two weeks ago, and I would like to strongly encourage you to read it, as it provides insightful supplementary views and information to the PK2 report. Such initiatives further emphasise the need to consider interoperability and integration between various digital currency and transfer-of-value platforms.

Pondering the outcomes

This outcome explores the implications of DLT-driven innovation through practical exploration. Such exploration leads to practical insights which require further analysis, research and dialogue. However, pondering on the lessons learnt and the insights gained should not lead to ‘analysis paralysis’ or unnecessary pontification.

It is important to interrogate the efficiencies and benefits that new technology may introduce. In the context of DLT-based platforms in financial markets, potential efficiencies relate to:

- increased transparency in the holding of securities;
- reduction in costs due to automation; and
- the removal of multiple manual reconciliation processes across a network of intermediaries.

One of the primary risks stems from the lack of regulatory certainty as the existing legal and regulatory frameworks for financial markets were not designed for trading, clearing or settling on DLT.

Promoting responsible innovation

This looks at how innovation should be done in a way that the financial system is taken forward to benefit society as a whole. This includes contributing to achieving objectives such as:

- improving efficiency;
- lowering barriers to entry for financial activity; and
- addressing any challenges restricting access to meaningful financial services.

Policy and regulatory implications

The insights gained through practical exploration should lead to greater regulatory clarity – both for innovators and for regulators – and should be in the broader interest of ensuring a level playing field for all market participants.

As financial services regulators in South Africa, we follow an activity-based and technology-neutral approach, although we are not technology-blind. It may well be that innovation enabled by DLT may change the risks involved in a particular business

process, for instance reducing or even eliminating counterparty risk, which may in turn require us to reconsider the appropriateness of specific regulations.

Regulators need to move with caution when considering developments before they implement any regulatory changes. They should be fully appreciative that regulated entities require clarity before fully committing to entering DLT-based markets.

Conclusion

As I conclude, some may ask whether central banks and regulators will still be relevant in a world based on some of the decentralised principles explored in Project Khokha.

From a regulatory perspective, I think it is unlikely that decentralised markets will be suitable in all instances or that decentralisation will guarantee the achievement of public policy objectives such as consumer protection, financial stability as well as safety and soundness, which fall within the mandates of central banks and regulators.

The role of central banks, regulators and policymakers should, however, evolve with financial markets to ensure that we continue to fulfil our mandates in future financial markets.

Central banks, regulators and policymakers can – and indeed must – play an active role in shaping a potential move to DLT-based markets through playing with purpose, playing in a collaborative way, pondering the implications of innovation, promoting responsible innovation for the public good, and informing an appropriate policy and regulatory response.

Thank you.