



South African Reserve Bank

**An address by Francois Groepe,  
Deputy Governor of the South African Reserve Bank,  
at the Payments Innovation Conference**

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**The South African Reserve Bank's perspective  
on a changing and innovative payments environment**

**Introduction**

Fellow Deputy Governors, other distinguished guests, ladies and gentlemen.

It gives me great pleasure to welcome you to the first Payments Innovation Conference organised by the South African Reserve Bank (SARB), which we are hosting in collaboration with domestic and international payments stakeholders. This conference takes place at an appropriate time as innovation and technology have the potential to spur growth and development.

According to EY's FinTech Adoption Index<sup>1</sup>, South Africa boasts financial technology (FinTech) adoption levels of 33%, which is in line with the global average. The survey respondents expect this type of adoption to increase to an average of 52% globally, with South Africa counting among the countries with the highest intended use among consumers at 71%.

The purpose of this conference is therefore to develop deeper insights into emerging innovations in the payments ecosystem, which we hope will provide a better

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<sup>1</sup> EY. 2017. 'EY FinTech Adoption Index 2017 – The rapid emergence of FinTech'. Available at [http://www.ey.com/Publication/vwLUAssets/ey-fintech-adoption-index-2017/\\$FILE/ey-fintech-adoption-index-2017.pdf](http://www.ey.com/Publication/vwLUAssets/ey-fintech-adoption-index-2017/$FILE/ey-fintech-adoption-index-2017.pdf).

understanding of regulatory frameworks, stimulate debate, and spur development within the payments space in support of our country's developmental objectives.

My address today will focus on the SARB's perspective on the changing and innovative payments environment.

We are in an era of unprecedented exponential change, where rapid advances in technology have the potential to fundamentally change financial services. The International Organization of Securities Commissions (IOSCO), for example, reports that, in 2014, there were 1 800 FinTech companies with a total funding of US\$5.5 billion. This has risen to over 8 800 FinTech companies with investment of US\$100.2 billion by 2016.<sup>2</sup>

Technology's impact extends beyond mere services. It also allows for the democratisation of communication and information, and thus for the transfer of power to the end user. Countries and institutions were previously the main controllers of communication and information due to high barriers to entry, such as information asymmetries and the large capital investment that was required to facilitate access. This has fundamentally changed.

Powerful and super-fast processors, cheaper computing power, wide availability of access devices, and the roll-out of high-speed broadband have created an environment primed for a burst of innovation and ideas. Due to these rapid advances in technology, there has been an increasing effort to take advantage of these developments in service offerings, including within the financial services sector.

The emergence of FinTech, that covers digital innovations and technology-enabled business model innovations in the financial sector, also presents exciting opportunities. Examples of innovations that are fundamental to FinTech today centre around value provision in the lending environment, value storage in the form of wallets and tokens, value protection in the form of insurance and investments, as well as value transfer in the payments and remittances areas. Cryptocurrencies that utilise block chain technologies, new digital advisory and trading systems, artificial

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<sup>2</sup> International Organization of Securities Commissions (IOSCO). 2017. 'Research report on financial technologies'. Available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD554.pdf>.

intelligence and machine learning, peer-to-peer lending, equity crowdfunding and the Internet of things are some of the better-known developments that are normally cited. The drivers of these developments, from the demand side, emanate from shifting consumer preferences and an expectation for more, faster and cheaper services. From the supply side, they emanate from opportunities presented by evolving technology, as well as the changing regulatory environment. Currently, there is intense global interest in these developments, as is evident from numerous research initiatives, consortium efforts, collaborative bank experimentations, venture capital deployment, as well as a number of central bank projects.

According to the Bank for International Settlements (BIS) working paper on *The FinTech opportunity*<sup>3</sup>, these innovations may:

- a) disrupt existing industry structures and blur industry boundaries;
- b) facilitate strategic disintermediation;
- c) revolutionise how existing firms create and deliver products and services;
- d) provide new gateways for entrepreneurship; and
- e) democratise access to financial services

Although FinTech enterprises have changed the way in which financial services are structured, provisioned, and consumed, they have not acquired dominance yet. They do, however, have the potential to significantly change the competitive landscape. The World Economic Forum<sup>4</sup> (WEF) highlights eight factors that have the potential to alter the competitive landscape of the financial ecosystem, namely:<sup>5</sup>

- a. the commoditisation of cost bases;
- b. the redistribution of profit pools;
- c. ownership of the customer experience;
- d. the delivery of financial services through platforms;
- e. the monetisation of data;
- f. automation in the workplace;

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<sup>3</sup> BIS Working Papers [Paper?] No. 655, *The FinTech opportunity*, Thomas Philippon, Monetary and Economic Department, August 2017. Available at <http://www.bis.org/publ/work655.htm>.

<sup>4</sup> World Economic Forum (WEF). 2017. *'Beyond fintech: A pragmatic assessment of disruptive potential in financial services'*. [http://www3.weforum.org/docs/Beyond\\_Fintech\\_-\\_A\\_Pragmatic\\_Assessment\\_of\\_Disruptive\\_Potential\\_in\\_Financial\\_Services.pdf](http://www3.weforum.org/docs/Beyond_Fintech_-_A_Pragmatic_Assessment_of_Disruptive_Potential_in_Financial_Services.pdf)

<sup>5</sup> World Economic Forum (WEF). 2017. *Beyond FinTech: a pragmatic assessment of disruptive potential in financial services*. Available at [http://www3.weforum.org/docs/Beyond\\_Fintech\\_-\\_A\\_Pragmatic\\_Assessment\\_of\\_Disruptive\\_Potential\\_in\\_Financial\\_Services.pdf](http://www3.weforum.org/docs/Beyond_Fintech_-_A_Pragmatic_Assessment_of_Disruptive_Potential_in_Financial_Services.pdf).

- g. systemically important technology firms; and
- h. financial regionalisation due to differing regulatory priorities and customer needs.

These developments also have the potential to rapidly alter the payments space. Innovation in the payments ecosystem is resulting in an expansion of payment services, broadening the reach of payments platforms and networks.

Payment services innovations have recently included the leveraging of mobile devices and connectivity to make payments simpler and more convenient and to reduce the use of cash and make payments less visible to payers.<sup>6</sup> A preliminary analysis conducted by the SARB reveals that the current crop of innovations leverages the existing foundations of the payments infrastructure and that these new firms integrate themselves into existing value chains.

For example, mobile technology has catalysed the introduction of new mobile point-of-sale (POS) players in South Africa. These players have deepened the reach of electronic payment networks by targeting flea markets, self-employed artisans such as plumbers and spaza shops in rural areas – all previously underserved markets in terms of access to card payment networks. The potential of this type of technology means that, in the near future, we could possibly triple the level of the current 600 POS devices per 100 000 citizens to close to 2 000. This vividly demonstrates the potential of FinTech to broaden the network and deepen inclusion.

Other benefits that innovation may bring about include, operational simplification, counterparty risk reduction, clearing and settlement time reduction, liquidity and capital management improvement and fraud minimisation.

It should, however, be recognised that while these developments present tangible benefits, they may also give rise to certain challenges, including, but not limited to issues related to privacy as well as regulation, criminality and law enforcement. Given this reality, a balance necessarily need to be struck when developing regulatory frameworks.

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<sup>6</sup> 'The future of financial services: how fs:h disruptive innovations are reshaping the way financial services are structured, provisioned and consumed'. An industry project of the financial services community. fsc. Prepared in collaboration with Deloitte Final Report, June 2015. Available at [http://www3.weforum.org/docs/WEF\\_The\\_future\\_of\\_financial\\_services.pdf](http://www3.weforum.org/docs/WEF_The_future_of_financial_services.pdf).

## **The innovation trade-off**

The possible benefits of innovation are numerous and broad, and those that are often touted relate to costs, convenience, and speed. Big Data and information analytics that allow financial intermediaries to understand and cater to their customers' needs at an individual level presently exist and already in wide use. These developments have the potential to lead to advances in risk management, credit extension processes and an economy that potentially makes less use of cash. The inclusion of previously under- and unserved consumers into formal financial services through the introduction of novel and bespoke products is a promising and welcome development.

As stated above, the pursuit of these developments, in the absence of appropriate and sound regulatory frameworks, could lead to the emergence of new risks. As an example, with these advances in technology, some of the platforms and systems have moved to the cloud. This is compounded by the rapid improvements and usage of mobile devices.

A WEF white paper highlighted that in order to improve risk management, it is important to highlight that the right tools should be used, including:<sup>7</sup>

- a. data on the emerging new innovation and its potential impact;
- b. assessment tools for the systemic risks introduced by innovation;
- c. a more standardised regulatory treatment framework for new competitors across jurisdictions; and
- d. an improved mechanism for public-private cooperation to combat cyberattacks.

A further key regulatory consideration is to support initiatives that could assist in easing frictional costs, within the system and the economy, and to respond to the need for all interbank payments to be processed and finalised in near real-time.

## **Cybersecurity**

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<sup>7</sup> World Economic Forum (WEF). 2017. *'Balancing financial stability, innovation, and economic growth'*. Available at [http://www3.weforum.org/docs/IP/2017/FS/WEF\\_Whitepaper\\_FSIEG.pdf](http://www3.weforum.org/docs/IP/2017/FS/WEF_Whitepaper_FSIEG.pdf).

There is no doubt that cyber-threats have increased substantially over the past few years. As technology evolves and is more widely embraced and become more accessible, criminal activity is rapidly expanding to the cyber-world. The source of this threat vector is both privately and state-sponsored - the latter is far more difficult to counter. Cybersecurity and strengthening resilience across the entire value chain is therefore non-negotiable. In response to this reality, the SARB hosted a Cybersecurity Conference with the theme of 'Collaboration for building cyber-resilience' last year. The conference was an important event for creating a platform to share experiences from both global and local stakeholders, creating awareness and a common understanding of the fundamental issues, and assisting in determining the deficiencies that needs to be addressed.

Through this Payments Innovation Conference, we will also explore payment threats and security interventions in the digital age, with a focus on the analysis of emerging threats in the payments domain and counteracting threats (the tactics, tools, and techniques) in order to remain safe and secure in the digital age.

It is important to recognise that, in an interconnected world, one is only as safe as the weakest link. It is, therefore, crucial for us to think about how to strengthen the resilience of the wider financial system.

### **Developments in regulations and policy objectives**

The South African Reserve Bank Act 90 of 1989 (SARB Act) bestows the mandate of ensuring the efficiency, safety and soundness of the entire payments value chain and related matters on the SARB. Aligned to this mandate in the SARB Act is the enabling legislation, namely the National Payment System Act 78 of 1998, which “provides for the management, administration, operation, regulation and supervision of the payment, clearing and settlement systems in the Republic of South Africa<sup>8</sup>. In the quest to execute this mandate, the SARB endeavours to increasingly establish an enabling regulatory environment for innovation to take place.

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<sup>8</sup> See the National Payment System Act, available at [www.resbank.co.za](http://www.resbank.co.za) > Regulation and supervision > National Payment System (NPS) > NPS Legislation.

One of the benefits of payments innovation is the potential expansion of access to financial services and achieving financial inclusion to reach the under- and unserved consumers and to reduce transaction costs while providing greater transparency with simpler products and greater convenience and efficiency. By leveraging technology and proactively shaping a conducive environment for innovation through regulation, the payments system can serve as a gateway to achieving financial inclusion and address the need to deepen and strengthen access for both consumers and providers.

As the payments industry becomes increasingly innovative and continues to improve the traditional payments landscape, regulatory and legislative frameworks need to be flexible and adaptable to these changes and provide an enabling environment for innovation to thrive. Furthermore, the regulatory framework should remain robust and resilient to risks that may be posed to the safety and efficiency of the payments system.

A number of developments have necessitated a rethink of the adequacy and relevance of the existing payments regulatory framework. These include global policy developments, relating to financial inclusion, access, financial stability, financial integrity and competition, international best practice and standards, and recommendations from global policy-setting structures, including the assessments undertaken by institutions such as the World Bank and the International Monetary Fund.

### **How the South African Reserve Bank collaborates with the industry**

In 2015, the SARB initiated a project to develop a vision for the national payment system. This process culminated in the drafting of the *National payment system framework and strategy: Vision 2025* document (*Vision 2025*). The SARB is currently in the last phase of consultations with the industry regarding the strategies that will be implemented to advance the development of the national payment system. The *Vision 2025* process has and will continue to be consultative and collaborative.

In March 2016, the SARB Executive approved the establishment of an internal Virtual Currencies (VCs) and Distributed Ledger Technologies (DLTs) Steering Committee (SteerCo) and working group. Subsequently, we established a FinTech SteerCo and working group. These structures are tasked to strategically review the emergence of FinTech initiatives and assess the related use cases. Their primary responsibilities include the facilitation of the development and review of policy positions for the SARB across its regulatory domains. This will be undertaken through an analysis of both the pros and the cons of emerging FinTech innovations, as well as through the testing of appropriate regulatory responses to these developments.

The SARB is also looking forward to exploring the potential for sandboxes and innovation hubs to test the relevance of existing regulatory frameworks and make the necessary changes, where appropriate.

An intergovernmental FinTech working group consisting of various government agencies – including the SARB, National Treasury, the Financial Intelligence Centre, the Financial Services Board and the South African Revenue Service – was also established in December 2016. Its main purpose is to assess different FinTech innovations and their impact on the South African regulatory landscape. This is aimed at fostering safe FinTech innovation in South Africa.

## **Conclusion**

I hope that the focus of the next two days will be on the potential innovative developments within the payments systems environment and the possible benefits that these may give rise to. This calls for critical reflections, including on how we may collaborate in order to advance the development of and growth in our economy. This conference thus presents an opportunity to jointly contemplate the payments system's development potential and the roles that each one of us could play in realising this aspiration. Frank and open discussions are required on our strengths and shortcomings, with a specific focus on where we can do better and how we should position the South African payments system going forward.

As a regulatory authority, the SARB will also continue to focus on areas where policy and regulation may be improved to provide the financial industry with a more enabling regulatory environment. I would like to reassure you that the SARB is committed in its support of innovation and the responsible improvement of the services offered to all our people in a manner that does not give rise to increased threats to the soundness or stability of the wider financial system.

Finally, I would like to encourage the industry to continue collaborating and innovating, while also supporting policy objectives and taking cybersecurity risks into account.

Thank you.