Getting Policies Right in the Digital Era: Competition and Innovation as Policy Objectives

The introduction of new technologies and players is a game changer for financial policymakers, regulators, and supervisors.

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The digital revolution has allowed new actors, such as non-bank financial service providers (FSPs) (like mobile money providers) and fintechs (companies that apply new technologies such as Artificial Intelligence to the provision of financial services and products), to leverage connectivity, new technologies, and data analytics to bring innovative financial solutions to market. This has resulted in dramatic transformations of the financial sector in both mature and emerging economies. New products such as nano-credit and mobile person-to-person (P2P) transfers have allowed alternative market players to reach consumers that formal banking and payments providers had never served before.

Such innovative solutions have often brought real competition to segments of the financial services industry, resulting in greater consumer choice, lower retail prices, higher quality of service and **increased financial inclusion**. Mobile money in Sub-Saharan Africa is a good example, due to its dual functionality as payments and low-cost value-storage vehicle, which matches poor peoples' uneven cash flow. When Safaricom first launched M-Pesa in Kenya, it offered an innovative way for the middle class to send money home, competing with formal and informal providers of remittances services. That innovation and competition has turned out to be one of the greatest game-changers in the pursuit of financial inclusion that emerging countries have seen in the past half century.

Today, fresh on the heels of mobile money and digital credit, there is a much larger fintech wave challenging incumbents and creating new markets based on novel technologies, such as artificial intelligence, big data, and geospatial intelligence. These solutions range from robo-advising (such as StashAway and Autowealth) and crowdfunding (e.g., Kiva) to virtual currency-based remittances (Bitpesa) and blockchain-enabled capital raising platforms (Capexmove). At the same time, super platforms such as **Google**, **Facebook**, and **Amazon** are entering the financial services sector, leveraging their massive databases of customer data to do so.

Traditional, established players have been stepping up to these competitive challenges by innovating. For example, by using a combination of technology, data analytics, and client research, traditional FSPs are identifying patterns in customers' financial behaviors and decisions in order to determine which customer segments may benefit from cross-selling and what cross-sell strategies are appropriate for each segment. Cooperativa Acreimex, Banco WWB, Capital Aid Fund for Employment of the Poor (CEP), and SAJIDA Foundation are examples of FSPs in Mexico, Colombia, Vietnam, and Bangladesh, respectively, that are intentionally pursuing cross-selling strategies that impact the institutions and their customers.

Some innovative products, however, raise concerns that supervisors should monitor and regulators consider carefully. For instance, the rise of digital lending in Kenya has raised the risk of over-indebtedness. Moreover, the World Bank's Consultative Group to Assist the Poor (CGAP) has pointed out that at least one digital credit product in the country resembles a Ponzi scheme.

The digital revolution can render financial sectors extremely competitive at different levels of the value chain. The nimble fintechs, which are often not regulated by the primary financial authority, use technology as a way of tackling distinct parts of the financial services value chain, thereby undercutting incumbents that have relied on economies of scale and customer inertia for market share. At the same time, super platforms make formidable competitors to both incumbents and fintechs alike, due to the intrinsic network effects that they exhibit (whereby each new member exponentially increases the value of the platform), their lack of interoperability among themselves and their tendency towards standardization of service features, to the exclusion of small players. Lastly, traditional players, increasingly aware of these competitive threats, are repositioning themselves to remain competitive through collaborations via accelerators and joint ventures, as well as by undertaking acquisitions and internal reorganizations.

The vigorous competition triggered by technological innovation and the entrance of new players in financial services can bring a multitude of benefits to financial inclusion. Effective competition in price makes financial products more affordable, which is essential to drive adoption among low-income populations. Competition equally drives up quality and service standards, which helps adopters remain active users, and encourages the development of new products that are often targeted at specific consumer needs, including those of low-income individuals. Lastly, competition and innovation reinforce each other in a circular manner, as competition promotes further innovation, which may foster financial inclusion.

However, there is a dark side of unchecked market innovation and competition that regulators and supervisors must heed. In particular, the increasing significance of digital channels as the way to access financial services, the rise of customer data as a critical asset for business development, and the existing market power in the sector of origin of many new actors may require closer scrutiny from financial authorities. For instance, in a sector where the value of data has significantly increased, given its utility for credit scoring or customer targeting purposes, the entities that control these data have important market advantages. Similarly, the control of the USSD channel grants an advantage to mobile network operators (MNOs) for downstream digital financial services.

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Unfair leverage of these assets could ultimately stifle competition, rendering existing customers worse off and curbing the market's incentives to reach untapped customers, including those at the bottom of the income pyramid. Traditional incumbents may also be pressured to undertake problematic actions that preserve their market share, including unfairly bundling products, preventing interoperability with competitors in regard to their proprietary platforms or to other payment infrastructure, such as switches, **creating opaque pricing structures** or inappropriately forcing exclusivity on their agents and distributors.

Prioritization

Prioritization of Financial Inclusion Alone May Not be Sufficient to Achieve Success

The focus on financial inclusion by financial sector policymakers and regulators has borne fruit in many countries. According to CFI's **recent review** of the 2017 Global **Findex**, there are 22 "surge" countries in emerging markets that, starting from very low inclusion, saw dramatic increases in the number of people with access to accounts in the past three years.

However, not all countries have seen growth in formal financial inclusion in recently, even against the backdrop of financial inclusion mandates. Nigeria, Mexico, and 14 other countries actually saw a decline in the numbers of individuals with access to formal financial services since 2014 in the Findex data. This emerged even though many of their financial authorities have been explicitly tasked with implementing policies and strategies around financial inclusion, alongside their core responsibilities for promoting micro- and macroprudential stability, financial integrity, and consumer protection.

Nigeria would seem to be a perfect candidate for achieving financial inclusion using new business models that leverage widespread connectivity, **mobile phone penetration**, and agents, given that it boasts 84 percent mobile phone penetration yet only 4.9 bank branches per 100,000 people. And indeed, from 2011 to 2014, Nigeria's formal financial inclusion numbers jumped from 30 to 54 percent, no doubt at least partially fueled by the launch of its **National Financial Inclusion Strategy** as well as its "**Cashless Nigeria**" policy in 2012. Yet the 2017 Findex reported a drop in those formally financially included to 49 percent, even after the Central Bank of Nigeria established the Financial Inclusion Steering Committee and the Financial Inclusion Technical Committee in January 2015, and launched the three-year Digital Financial Services Project in January 2016.

Meanwhile, the mobile money market remains undeveloped. As of 2017, fewer than 6 percent of Nigerians had a mobile money account, compared with 73 percent of Kenyans. The regulatory framework limits competition in the provision of digital financial services; mobile network operators (MNOs) are not permitted to provide mobile money services either directly (as in Kenya) or through subsidiaries (as in Ghana, Tanzania, Ivory Coast, and many other countries); while issues around fair access to the Unstructured Supplementary Service Data (USSD) channel also remain unresolved.

In Mexico, the number of individuals who were formally financially included decreased to 37 percent from 39 from 2014 to 2017 according to the Findex. All forms of savings and borrowing fell, with "saved any money" falling to 41 percent from 58 and "borrowed any money" to 32 percent from 51. These decreases occurred despite the fact that Mexico launched its National Financial Inclusion Strategy in June 2016 and enacted a financial reform law in 2014 that strengthened the country's banking and securities regulator to **increase competition and lower the cost of borrowing**. Several factors suggest there are market structure issues at play in this decline, including that the financial sector is dominated by handful of major banks with low incentives to invest in inclusion, while the rest of the sector is fragmented, featuring numerous, and **often informal**, small financial institutions with limited capacity.

And even in countries where financial inclusion has been seen as a success, such as Kenya – where the number of individuals formally financially excluded has decreased from 58 percent to 18 percent from 2011 to 2017 according to the Findex – competition issues are inhibiting financial inclusion from achieving its full potential. The last decade has seen the unchecked rise of Safaricom in mobile telecommunications and mobile money markets in Kenya, with a **currently reported** 73 percent market share in mobile telephony and a 81 percent market share in mobile money held by its mobile-money service M-Pesa. Although initially Safaricom's market strength in mobile telecommunications created the conditions for the successful roll-out of mobile money, this dominance is now arguably resulting in **lower innovation** and **higher prices** and is increasingly drawing the attention of the market regulators such as the Communications Authority of Kenya as well as the Kenyan Parliament.

Mandate

The Mandate of Financial Authorities: The Case for Adding Competition and Innovation

The nature of the mandates of financial policymakers, regulators and supervisors has evolved significantly. Until the mid-1990s, financial authorities were primarily tasked with ensuring price stability and preserving the soundness of the financial system, although some also aimed to promote the deepening of the financial sector. Throughout the 1990s, their mandates expanded to incorporate additional agendas, in part to accommodate a new global regulatory governance framework for international financial markets.

During the last two decades, mandates in many countries have broadened to include financial integrity and consumer protection. The push for greater integrity in financial markets was driven, in part, by a growing awareness of the extent and pernicious effects of money laundering and terrorist financing. The Financial Action Task Force (FATF) emerged in the late 1980s to define internationally agreed-upon standards for anti-money laundering (AML) and combating the financing of terrorism (CFT). Major incidents, such as the terrorist attacks of September 11, 2001 and revelations about widespread tax avoidance through opaque legal arrangements (e.g., “Panama Papers”), added urgency to the effort.

Financial consumer protection also became a prominent objective for regulation and supervision around this time, with several financial authorities taking action to better protect and empower customers. The 2008-2010 global financial crisis accelerated this trend, as it showed how closely consumer protection entwines with financial stability. In 2010 the G20 called for the establishment of G20/Organization for Economic Co-operation and Development (OECD) Task Force on Financial Consumer Protection and called on the Basel Committee for Banking Supervision (BCBS) to explore linkages between consumer protection and stability in mortgage lending. Some governments created or strengthened specialized financial conduct units within their central banks or separate authorities that field complaints, oversee firm behavior, and investigate reported misconduct. The passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act in the United States in 2010 and the establishment of the Financial Conduct Authority (FCA) in the United Kingdom in 2013 are symbolic of this trend.

In the last decade, financial inclusion has also received new global recognition from standard-setting bodies, international organizations, and financial authorities. Many countries are making international commitments, formulating national strategies, and implementing regulatory reforms to foster inclusion. Starting in 2012, financial inclusion advocacy organizations such as CGAP and initiatives such as the Global Partnership for Financial Inclusion (GPFI) introduced the "Inclusion – Stability, Integrity and Protection (I-SIP)" framework to assess the linkages among the four objectives, which could be either synergies or tradeoffs depending on the context. They argued that an inclusion mandate could contribute in numerous ways to the other three mandates, potentially forming a mutually interlocking and supportive approach, or could actually be harmful to the other objectives if there is no attention paid to potential synergies and tradeoffs – consider, for example, how directed lending in India contributed to the Andhra Pradesh microfinance meltdown. According to the BCBS, "Financial inclusion can introduce potential benefits to the safety, soundness and integrity of the financial system. However, it can also bring potential risks to providers and customers alike, and entail the transfer of well-known **risks to new players**." The Alliance for Financial Inclusion (AFI) noted, "the importance of policymakers' understanding of these linkages. From a policy perspective, much can be gained from a better understanding of these **interrelationships and coordinated policy approaches**." Some countries have also adopted the I-SIP framework at the national level.

However, the numbers from Nigeria, Mexico and others suggests that solely adding financial inclusion as a top objective to the traditional policy objectives of financial sector regulators has not been sufficient to ensure progress in certain countries. The changes the financial sector is undergoing – discussed below – suggest that competition and adaptation to innovation are becoming equally important policy objectives that financial authorities should assess and pursue when developing and promulgating policies that aim to achieve financial inclusion.

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The digitization of financial services, and innovation more broadly, much of it with financial inclusion aims or potential, is transforming financial markets, affecting all four I-SIP objectives and the linkages among them. Moreover, innovative regulatory frameworks (such as the European Union's Second Payment Services Directive and the United Kingdom's Open Banking initiative) may be the trigger for further innovation, modifications of competition dynamics and access to formal financial systems in the long-run. The landscape is radically transforming with these developments, and the linkages (positive or negative) between competition, innovation and the four I-SIP objectives are too complex, too various, and too important to be managed so as to maximize synergies and minimize tradeoffs, unless financial authorities add attention to innovation and competitive dynamics to their mandates.

In this article we argue that recent market developments and evidence from the field call for additional mandates to be added to the financial authorities' span of concern to make their mandate more comprehensive. Specifically a "C" for competition and another "I", for innovation should be added to the I-SIP framework. In doing so, financial authorities should intentionally consider and address the relative synergies and trade-offs of competition and innovation with the I-SIP objectives in a structured, manageable manner, investing in tools – like the regulatory impact analysis (RIA) framework (to determine the change affected by regulations and policies and isolating the right variables for achieving the regulator's objectives), the OECD competition assessment toolkit (to identify unnecessary restraints on market activities and developing alternative, less restrictive measures that still achieve government policy objectives), regulatory and supervisory technology (RegTech for regulators and SupTech) solutions (to harness the power of data and technology to develop intelligence for supervision and policy/regulatory development), and modern data architectures (to convert voluminous raw data into easily digestible insights) – to systematically assess those complex linkages between all six policy objectives and master the new era of digital finance.

Two Additions to the Policy Mix

An Overview

Certain financial authorities already have overarching competition and/or innovation mandates in their foundational legislation, which actively support their policy approaches in this area and have helped to insure the health of their financial sectors. The Financial Conduct Authority (FCA) in the United Kingdom, for example, has three operational objectives – consumer protection, integrity and competition, as per Article 1 of the Financial Services Act. Moreover, since its establishment in 2013, the FCA has worked closely with the newly established Competition and Markets Authority (CMA) to actively promote competition in financial services.

Further, some central banks in the European Union (EU) are explicitly required in their foundational legislation to abide to the various European treaties, which include competition and technological advance as key objectives of economic policy. For example, the Estonian Central Bank is required to abide to the Treaty on the European Union (TEU) – which sets out "a highly competitive social market economy" and the promotion of "scientific and technological advance" as key objectives of the European Union – and to the Treaty on the Functioning of the European Union (TFEU) – which states that the activities of the Member States shall include "the adoption of an economic policy which is [...] conducted in accordance with the principle of an open market economy with free competition." Similar references are made in the Central Bank of Malta Act. A recent review of Estonia's financial system by the OECD has not identified any wide problems relating to competition in the banking sector since its accession to the EU in 2003, while Malta has a robust and competitive financial services sector, with the banking sector having grown in the last two decades from 4 local banks to 27 licensed banks in 2016 and a 58 percent increase in the number of new financial services providers from 2015 to 2017.

The objective of promoting financial innovation, even though it is not explicit in their mandates, is prominent in many initiatives that financial authorities have undertaken. Fintech regulatory sandboxes are a clear example of this trend. The objective of the Monetary Authority of Singapore (MAS) sandbox is to "grow a smart financial center where innovation is pervasive and technology is used widely to enhance value, increase efficiency, manage risks better, create new opportunities and improve the lives of Singaporeans." Therefore, "MAS is encouraging more fintech experimentation so that promising innovations can be tested in the market and have a chance for wider adoption, in Singapore and abroad." Similarly, the objective of Bank Negara Malaysia's (BNM) sandbox is to provide a regulatory environment that is conducive for the deployment of fintech. This includes reviewing and adapting regulatory requirements or procedures that may unintentionally inhibit innovation or render them non-viable. As part of this process, the Financial Technology Regulatory Sandbox Framework is introduced to enable innovation of fintech to be deployed and tested in a live environment, within specified parameters and timeframes."

Given how fast the financial landscape is changing in emerging and frontier markets, the increasing importance of innovation in fostering financial inclusion and of competition in the development of healthy financial sectors, financial authorities should have both the mandates and the tools to intentionally consider and address the relative synergies and trade-offs of competition and innovation with the I-SIP objectives in a structured, manageable manner, as we discuss in the following paragraphs. In keeping with the I-SIP framework's approach, the assessment, monitoring, and evaluation of any policy or regulatory intervention should evaluate – and possibly measure – the impacts of such interventions on financial inclusion, stability, integrity, consumer protection, innovation, and competition.

Below, we lay out some linkages between innovation and competition, and between those objectives and the current objectives in the I-SIP framework.

Competition and...

Competition and Innovation

Most of the time the linkages between competition and innovation in financial services are positively reinforcing. While competition can be price- or quality-driven depending on the market, in financial services competition often drives increased innovation, as new business models and new technological solutions displace or build upon old ones in the market. (For example, although the mobile money services M-Pesa has ultimately conferred a quasi-monopoly power on to Safaricom in mobile money, it has also set the foundation for further competition in the newly-developed digital credit market, with M-Shwari – a credit product offered by the Commercial Bank of Africa and Safaricom – currently competing with KCB M-PESA– Equity Bank's short-term loans and M-Co-op Cash.) At the same time, innovation is critical to boosting competition across the spectrum of financial services as it allows new players to enter a market that normally has high barriers to entry and pushes incumbent players to respond with more varied and better-priced offerings. It should, however, be noted that sometimes innovation must be fostered by the granting of exclusive intellectual property rights (such as patents), as companies otherwise are likely to be unwilling to invest in the innovative process (often the case in research-intensive industries such as pharmaceuticals). Innovation can also be used to stifle competition, such as when a significant player is able to enter a market, offer an innovative service, and then corner that market due to its market power.

Competition, Financial Inclusion And Financial Sector Development

There are numerous linkages between competition and financial inclusion. The entry, capitalization, and growth of new firms in a market economy is positively associated with more efficient allocation of capital, financial sector development, and greater financial access for both individuals and enterprises. Financial inclusion also has a positive effect on the growth of new firms in all industries, and this correlation is magnified when bank markets are less concentrated, a proxy for more **competition in financial services**. One reason for this is that the development of financial inclusion can mitigate credit constraints on entrepreneurial activities by reducing **information asymmetry** in financial transactions. It should be noted, however, that as financial inclusion is multidimensional, so its linkage with competition is equally multidimensional. The effect of competition on financial inclusion will vary by country and specific sector, as will the effect of financial inclusion on the growth of various firms and industries. Thus, a more in-depth analysis of these linkages is essential.

Competition and Financial Stability

The relationship between competition and stability is more complex; as stated by Allen and Gale, "Sometimes competition decreases stability and sometimes perfect competition is compatible with the socially optimal level of stability." Research on Chilean banks has shown that losses on small loans created by new entrants in a market pose less systemic risk than the large, infrequent, but also less predictable losses associated with the large loans of market incumbents. Thus, as noted by CGAP in its 2012 brief on financial inclusion and stability, "Greater financial inclusion in terms of access to [retail] credit might also coincide with greater stability at the level of providers of financial services." On a more macro-level, the process of bank consolidation and the resulting financial conglomerates have resulted in stability concerns, as "the size and complexity of these institutions might undermine proper regulation and supervision" as they are "too big to fail." On the other hand, certain studies have found that increased bank competition for deposits erodes profits, thus lowering the market power of banks and encouraging them to take on new risks, which endangers financial stability. Further, consumer microcredit markets have overheated due to intense competition, and this has led to financial instability in some markets. Given this complex relationship, regulators would "benefit significantly from regularly assessing the combined effect of competition and innovation on financial stability."

Competition and Consumer Protection

Consumer protection and competition are also interdependent. Although historically often viewed as a subset of competition policy (in the EU, consumer protection became a policy objective only in 1993 with the Treaty of Maastricht, 36 years after the introduction of competition policy by the Treaty of Rome), consumer protection is now seen by regulators, including competition authorities, as policy objective on par with competition policy. It has even been argued that the concept of "consumer sovereignty" links both areas of law, with competition laws striving to ensure that consumers have an adequate range of options, and consumer protection laws guarantying that consumers can choose effectively from among those options and that they are satisfied with the standards of quality and safety available. One of competition policy's aim is to protect the consumer, and market conduct regulation contributes to the fair and even playing field where all actors may compete. If a competitor wishes to contend in a given market, it must ensure that, at a minimum, it meets legal consumer protection obligations. As per the OECD, "Competitive pressure is needed to encourage providers to offer competitive products, enhance innovation, and maintain high service quality." Thus it comes as no surprise that national legislation often combines competition and consumer protection in the same act (for example Australia's Competition and Consumer Act) or delegates their implementation to the same authority (e.g., Zambia's Competition and Consumer

Protection Commission). But consumer protection can also play an added role in financial services, as enhanced consumer protection can be a differentiating factor for certain actors in the market, given customer preferences for services they can trust. For example, Apple's reputation for security, reliability and strong privacy standards has given its ApplePay solution a clear advantage over its competitors.

Competition and Financial Integrity

The relationship between competition and financial integrity is multifaceted. The trend towards the demutualization (when a company transitions from a member-owned to a shareholder-owned firm) and privatization of stock markets, for example, has led to greater efficiency in these services without compromising (and indeed often enhancing) financial integrity.

In some cases, competition can even enhance integrity. FATF has recognized, for example, that financial exclusion is a money laundering and terrorist financing risk. When competition leads to financial inclusion it can potentially increase financial integrity. However, allowing less well-capitalized market players to enter the sector may increase the risks for money laundering and terrorism financing if the new players have fewer resources for proper AML/KYC compliance, and by increasing the supervisory burden on AML supervisors.

Innovation and...

Innovation and Financial Inclusion

As set out above, the introduction of mobile money services, such as Safaricom's M-Pesa in Kenya, has been a catalyst for financial inclusion; following the launch of M-Pesa in 2007, financial inclusion in Kenya rose from 27 percent in 2006 to 83 percent in 2016. In Tanzania, only 21 percent of adults have traditional bank accounts while 38 percent have mobile money accounts. Further progress regarding financial inclusion has been made through the innovative use of data analytics and alternative credit scoring, which have increased the types of financial products available to the bottom of the pyramid as well as the use cases that can incentivize inclusion and adoption. Novel technologies such as artificial intelligence and blockchain are on the cusp of delivering a new generation of innovations that may drive financial inclusion even further. However, whereas an innovation that establishes a robust digital transactional platform could provide the base on which to build an entire ecosystem of inclusive products, an innovation that allows insurers, for example, to micro-segment risk could lead to massive exclusion – as bad risks are excluded from the pool.

Innovation and Financial Stability

Technology-enabled innovation in financial services could both support and undermine financial stability. For instance, while mobile money does not increase traditional systemic risk to the financial sector (due to its relatively low value), it could increase operational risk to systemically important payments infrastructure, due to the large increase in the volume of transactions processed through the national payments system and the speed of money circulation. The use of mobile money accounts to store value, as well as new digital savings and credit products, could also strengthen financial stability by increasing aggregate savings in the formal financial sector and enabling financial institutions to diversify their deposit bases and loan portfolios. On the other hand, rapid credit expansion without proper controls could reduce financial stability through over-indebtedness and high nonperforming loan ratios. According to the Financial Stability Board (FSB), "Fintech innovations can bring many opportunities. Innovations may already broaden access to finance for individuals and small businesses. New applications may enhance business processes, such as payments and settlements, compliance and risk management. At the same time, fintech may lead to a number of practical issues from a financial stability point of view that regulatory and supervisory authorities should consider in order to support the development of a strong and sustainable financial system as innovations in financial services mature and are more broadly adopted." It should be noted, however, that the FSB's comments are focused on a sample of specific fintech activities, including digital credit, robo-advisors, wholesale payments innovations, digital currencies, artificial intelligence and machine learning, and that regulators should analyze each fintech activity individually for its effect on financial stability.

Innovation and Consumer Protection

Assessing the impact of innovative products on customer experience and customer exposure to risk (including fraud, mis-selling, and theft) is particularly challenging. The rise of digital lending requires supervisors to monitor the risk of aggressive marketing practices, over-indebtedness, transparency of product cost, awareness of terms and conditions, availability of recourse, and discrimination and bias – all of which are risks with traditional models, but which take on new guises with digital models, due to the erroneous application of artificial intelligence, machine learning and big data models for credit scoring. On the other hand, the adoption of digital financial services also enables FSPs to offer financial services that are often safer and more convenient than informal ones, to provide more understandable information to users, to embed financial literacy and suitability tests in products, and to deploy new systems to request the user's informed consent to the collection and usage of their data.

Innovation and Financial Integrity

Finally, technology-enabled financial innovation can play a very important role in promoting the integrity of the financial system, increasing the traceability of financial transactions, and increasing the quantity and quality of information related to user identity available for AML/CFT supervision. Digital KYC may significantly reduce the cost of compliance for financial services providers while generating information that allows supervisors and financial intelligence units to fulfil their financial integrity mandates. Some new risks arise, however, when new payment channels (such as the internet and the mobile phone) and new technologies (e.g., virtual currencies) are deployed. On a different hand, some of the provisions in AML/CFT regulatory regimes could greatly discourage the deployment of new business models – identity verification can be a difficult and costly process and AML/CFT compliance requires extensive resources – and render innovative solutions commercially unattractive.

Conclusions

Only 15 years ago, the formal financial sectors in most countries were dominated by banks and a few payments providers, with a number of non-bank deposit and credit institutions such as microfinance institutions (MFIs) and savings and credit cooperatives organizations were active under limited oversight from the financial authorities. The rapid digitization of finance, the fast pace of technology advancement and the rise of data-driven innovation has transformed financial sectors and created opportunities for financial authorities that are pursuing financial inclusion to adapt their approaches by, for example, creating windows of opportunity for mobile money providers and sandboxes for fintech firms.

It has been said that, "Finance is nothing more than a long chain of innovations leading to development of novel financial products and processes used to improve allocation of capital and risk management." These innovations change market dynamics, creating new benefits and risks for financial stability, integrity, inclusion, innovation, consumer protection, and market competition. Policymakers and regulators should specifically assess these impacts when designing their policy or regulatory interventions and monitor each to evaluate the ongoing results of their work. Including a detailed and systematic assessment of competition and innovation impacts would allow supervisors and regulators to better understand and address these dimensions that are critical for the realization of their financial inclusion objectives since new policies, regulations, and changes in supervision can hamper innovation and distort competition dynamics. This is particularly important in emerging and developing countries, where innovation within a freely competitive environment can help leapfrog several stages of market development.

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It is becoming clear that achieving financial inclusion also hinges on the capacity of regulators and supervisors to integrate competition and innovation objectives into their mandates and activities to unleash and manage the potential of new technologies and business models, and to maintain the financial system sound and resilient. We believe that for the financial authorities that pursue financial inclusion, it is now time to invest in the full and formal adoption of an evolved version of the I-SIP framework that includes innovation and competition.

The authors are grateful to Tim Lyman (CGAP/The World Bank) and Philip Rowan (Cambridge Centre for Alternative Finance) for their review of early drafts of this paper.

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