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THE RISE OF MOBILE MONEY:
Regulatory issues for Australia

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As the use of mobile money continues to grow around the world, this paper examines several key lessons on mobile money regulation from emerging markets that are relevant to developed countries such as Australia. The paper also demonstrates the regulatory impact of the differences between mobile money and banking, focusing on prudential regulation and anti-money laundering rules.

Mobile money involves customers using electronic money and mobile phones to buy and sell goods and services. This form of financial service is growing rapidly in emerging and developed countries, which is prompting regulators to explore how to regulate this sector. Australian regulators should also begin this process, and should be guided by regulatory experiences in emerging markets, particularly Kenya. These markets tend to have more experience with mobile money than comparable developed countries such as the US and the UK, and so provide insights into regulatory challenges and methods of dealing with these challenges.

The global popularity of mobile money

Mobile money involves customers using mobile phones and electronic money ('e-money') to buy and sell goods and services. The customer deposits money with an 'e-money issuer', which is usually a non-banking institution such as an internet or telecommunications company, in exchange for e-money. Through the use of mobile phones, customers can use this e-money to trade with other customers. Customers can also convert their e-money back into regular money through 'agents' of the e-money issuer, which tend to be post offices, shops, and other retail outlets. These agents take the place of bank branches and automated teller machines (ATMs) commonly used in traditional banking systems.

In a number of emerging markets, e-money is increasingly used as an alternative currency that operates largely or entirely outside the banking system. This process is marginalising banks in the payment process.

This development is particularly pronounced in Kenya. In 2007, Safaricom, a telecommunications company and the e-money issuer in this scheme, launched M-Pesa, the world's first major mobile money service. Customers buy a SIM card which has an M-Pesa e-money account. They use cash to buy e-money which they convert back into cash at cash merchants, usually retail shops that are scattered throughout Kenya. Customers also use e-money to trade with other M-Pesa account holders. Safaricom and its cash agents profit on M-Pesa through fees charged on transfers of e-money, and the conversion of this money into cash.

The uptake of M-Pesa was remarkable. Within five years of its launch, 15 million users signed up to M-Pesa, over half of Kenya's adult population. M-Pesa now represents a rival payment system to that provided by banks. Almost 58 per cent of the total number of electronic payments in Kenya go through M-Pesa. Kenyan banks felt so threatened that in 2008 they lobbied unsuccessfully to have M-Pesa shut down.[2]

E-money issuers have also launched mobile money in other emerging markets such as Afghanistan, Indonesia, Malaysia, the Philippines, Rwanda, Sierra Leone and Sri Lanka. More than 120 mobile operators now offer mobile-money services of various kinds, and it is estimated that another 90 will soon join them.[3] The growth potential for mobile money is enormous. Mobile payments are expected to increase from $US48 billion in 2011 to $US630 billion by 2014, and the World Bank estimates that by 2020 such payments could reach 2 billion currently unbanked people.

Mobile money is also beginning to gain a foothold in developed countries. For example, in October 2012, Walmart, in partnership with American Express, announced the launch of a prepaid debit card called Bluebird in the US. Like M-Pesa, Bluebird can be used without an associated bank or credit account. Funds can be added with cash at any Walmart checkout and, like M-Pesa, customers can use the card to pay bills with their mobile, send and receive money, and withdraw money from ATMs, which take the place of M-Pesa's cash merchants.[4]

Mobile money is also beginning to operate in Australia. For example, e-money issuer mHITS enables its customers to transfer money onto their bank accounts, order and pay for food and drink, and send money to customers within Australia and overseas.[5] Like M-Pesa in Kenya, mHITS does not require the involvement of banks, because customers can trade solely with their e-money.[6] mHITS' international connections demonstrate the growing global significance of mobile money. For example, customers can remit money to the SMART mobile money service in the Philippines, an e-money issuer that is connected to 13 partner banks, 10,000 ATMS, and over 5,000 cash agents.[7]

Regulators and policy makers in developed countries are beginning to debate the appropriate content and form of mobile money regulation. For example, in the US, Budnitz argues that specific regulation should be developed for mobile money.[8] Akindemowo claims that the US scheme for regulating emerging payment systems is piecemeal and merely postpones 'looming inefficiencies'.[9] Regulators have moved further in Europe. In July 2009, the Council of the European Union adopted a new directive on electronic money.[10] As an anti-money laundering (AML) precaution, there is now an initial capital requirement of EUR 350,000 for issuing e-money and a maximum storage value of EUR 250 on non-rechargeable devices.[11]

The rise of mobile money and associated debates on mobile money in other developed countries suggests that this could be an important area of study for Australian regulators, particularly those in the finance sector (such as the Reserve Bank of Australia, the Australian Prudential Regulatory Authority, and the Australian Securities and Investments Commission) and the technology sector (such as the Australian Communications and Media Authority). The next section explores a fundamental question for regulators based on the experiences of regulators in emerging markets that have sophisticated and well-developed mobile money sectors.

Is a new regulatory paradigm needed for mobile money?

Emerging markets tend to have more sophisticated mobile money sectors than developed countries. Mobile money has grown relatively slowly in developed countries because traditional banks tend to provide financial services to the majority of the population. Conversely, banks have tended to find it too expensive and risky to expand their operations in many emerging markets, with the result being that large numbers of households remain unserved by traditional financial institutions. Many of these people are then highly receptive to the concept of mobile money, and have embraced this form of financial service.

The evidence from emerging markets suggests that research on mobile money is so limited that a regulatory paradigm for this form of financial service is yet to develop. As a result, regulators in emerging markets tend to try to use banking regulation for mobile money. This approach is unlikely to deliver effective outcomes because, often, justifications for the regulation of banking do not apply to mobile banking. For example, prudential regulation of banks is deemed necessary primarily because banks function on a small capital base and hold a large proportion of illiquid assets, which makes them susceptive to failure. The interbank market also tends to be made up of a network of large, unsecured creditor and debtor relationships, so the failure of one bank could lead to the collapse of others.[12]

Mobile money schemes around the world continue to evolve, so it is not possible to outline any one 'model'. However, overwhelmingly, e-money issuers do not accept deposits and channel those deposits into lending activities, either directly by lending or indirectly through capital markets. For example, in the M-Pesa model, one form of money (cash) is simply exchanged for another (book entry model) and the e-money issuer does not then on-lend this money.

The inapplicability of some of the central concepts behind bank regulation to mobile money means that until recently regulators have tended to design ineffective rules and principles for this sector, or not address this sector at all. Regulators began to question this approach in May 2012 when it emerged that employees of Telco MTN Uganda had stolen around US$3.5 million from an account used to store cash incorrectly sent through its mobile money service. This event has made many regulators from emerging and developed countries, banks, and international institutions such as the World Bank increasingly eager to develop appropriate rules, principles and institutions for mobile money.

Without a regulatory paradigm for mobile money, at this stage, regulators must rely on banking regulation. This means that regulators are faced with two fundamental questions. First, can banking regulation be used for mobile money and, if so, how? Second, what should be the driving regulatory principles, rules and institutions for mobile money? The experiences of regulators in emerging markets that have highly advanced mobile money markets, such as Kenya and the Philippines, provide some guidance for regulators in seeking to answer these questions — both in emerging and developed countries.

The next section explores three specific questions in relation to mobile money regulation that have been faced by regulators in emerging markets. Despite some differences in regulatory infrastructure and capacity, the ways in which regulators have

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addressed these questions highlight key areas of Australia's banking regulation that would need to be amended if and when mobile money emerges as a significant part of the payments system here.

Question 1: What approach should be used for mobile money?

Mobile money requires a different regulatory approach to regular banking. Traditionally, regulation of the payments process was organised along institutional lines, focusing on banks. This was appropriate because banks provided most or all of the component parts of the payment process. This is the approach taken in Australia. As outlined below, the *Banking Act 1959* focuses on assigning rules to institutions that are operating a 'banking business'.[13]

The first major question for consideration is whether the institutional approach to regulation is appropriate for mobile money. Early research from developments of mobile money in emerging markets suggests it is not, for two reasons. First, mobile money breaks the payments system into its components parts, consisting of the exchange, storage, transfer and investment of money. Second, e-money issuers, which arguably do not conduct a banking business, provide some or all of these component parts. This process is called 'unbundling'.[14]

M-Pesa's model demonstrates how e-money issuers cause the unbundling of the payment system. Customers can use their mobile phone to *transfer* money through transactions with other M-Pesa account holders. Customers can *exchange* e-money for cash and vice versa. The Central Bank of Kenya requires customers' funds (meaning the cash that customers provide to Safaricom in exchange for e-money) to be placed in a bank. This means that banks still retain a role in *storing* and *investing* money. However, in other jurisdictions, e-money issuers can also be account providers and so can also store money, as is the case with Celpay in Zambia.

Unbundling means that banks and e-money issuers share the risks involved in the payments process and so the institutional focus, particularly one that focuses exclusively on banks, is no longer appropriate. Instead, regulation such as the *Banking Act 1959* would require a *functional* approach. This approach would involve identifying the specific risks created in each component part of the payments process, regardless of the institution (e-money issuer or bank) providing that part.

Question 2: Should mobile money issuers be prudentially regulated?

The second key question is whether e-money issuers should be prudentially regulated, or at least prudentially regulated in the same way as banks. Answering this question involves deciding whether e-money issuers operate as banks. *Australia's Banking Act 1959* addresses this issue by determining whether an institution carries on a banking business, which broadly involves accepting deposits and on-lending them.[15]

As outlined above, e-money issuers do not tend to on-lend customers' funds, thereby removing some of the central justification for prudential regulation. However, prudential regulation in some form may be appropriate if e-money issuers accept deposits. This key concept in banking broadly means rights under any contract under which a sum of money (whether or not denominated in a currency) is paid on terms under which it will be repaid, with or without interest or a premium, and either on demand or at a time or in circumstances agreed by or on behalf of the person making the payment and the person receiving it.[16]

Given that it must usually be repaid upon demand, e-money appears to be a deposit. However, some commentators have suggested that mobile money should be viewed as stored value which can later be used or cashed in, rather than as a deposit. Akindemowo holds this view and cites confusion on this topic as additional evidence that new regulatory paradigms must be developed to allow for the unique nature of mobile money.[17] Most Japanese mobile money escapes traditional banking regulation because it is technically registered as prepaid vouchers and subject to the more lenient regulation of the Prepaid Card Law.[18]

Regulatory experiences in emerging markets provide a novel answer to this question. For M-Pesa, physical currency collected from customers must be placed into two prudentially regulated banks pursuant to a prior agreement with the Central Bank of Kenya.[19] This requirement means that essentially M-Pesa acts as a 'conduit of deposits'[20] for banks. Because M-Pesa is not permitted to store the funds in its own accounts, the banks take on the storage and investment risk. Ultimately, prudential regulation of the bank, not the e-money issuer, is required.

Question 3: What anti-money laundering requirements should apply to mobile money?

Anti-money laundering rules are particularly important for mobile money. As noted above, the capacity of mobile money to enable customers to quickly transfer money without the delay of the central banking clearing system is one of the main reasons for its popularity. This also means that it might become an attractive method through which to engage in money laundering. So the third question is about how banking AML rules should apply to e-money issuers, if at all.

In Australia, the main rules relating to AML are contained in the *Anti-Money Laundering and Counter-Terrorism Financing Act 2006 (Cth).* This legislation requires regulated businesses to identify and verify customer identity, notify authorities of suspicious matters, keep records of transactions and customer identification, and maintain an AML program for their businesses.

Literature from emerging markets suggest that AML standards should be decided by the size of 'floats' used in mobile money and, at this stage, such standards should be less stringent than for banks. The float describes the total outstanding amount of e-money issued by an e-money issuer.[21] If the total amount of floats in an economy is small, little e-money is being transferred around the payments system, so there is limited opportunity for large-scale AML, and AML rules should therefore be more limited than for regular banking.

Studies in emerging markets, particularly those in Mexico and Kenya, suggest that at this stage, floats and mobile money transactions are small, and so provide less opportunity for large-scale AML than cash and regular banking.[22] As a result, there should be less rigorous client identity requirements, capped transaction amounts and reporting thresholds for mobile money than those used for regular money provided by banks.[23] Only customers with high-volume or high-frequency transactions should be subject to heavy AML requirements. However, if mobile money continues to grow in emerging and developed markets, and floats become bigger, AML rules should become more consistent with those of regular banking.[24]

Conclusion

The use of mobile money is growing in emerging and developed countries around the world, including in Australia. As a result Australian regulators should be alert to the operation of this form of financial service. The experience of mobile money in emerging markets provides guidance on important regulatory questions that Australian regulators may face.

This paper has highlighted several important questions relating to the appropriate regulatory approach to mobile money, including prudential regulation and AML rules. In these areas it is important to determine how the driving forces of banking differ from mobile money to enable an appropriate adaptation of existing banking rules to mobile money. As mobile money continues to grow, other important questions will arise, such as licensing procedures, and the interoperability and interconnection between telecommunication networks. ■

Notes

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