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PROMOTING FINANCIAL INCLUSION BY ENCOURAGING THE PAYMENT OF THE INTEREST ON E-MONEY

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PROMOTING FINANCIAL INCLUSION BY ENCOURAGING THE PAYMENT OF INTEREST ON E-MONEY

CHENG-YUN TSANG,* LOUISE MALADY** AND ROSS P BUCKLEY***

I INTRODUCTION AND BACKGROUND

E-money is electronically stored value that is sent and received using an electronic device. E-money is widely regarded as having great potential to advance financial inclusion and reduce poverty, particularly in rural areas of developing countries.[1] The term 'e-money' can be broadly defined to 'denote value paid in conjunction with a wide variety of electronic retail payment mechanisms'[2] and therefore is also often described as a 'stored-value' product.[3] E-money has the following characteristics: '(i) issued upon receipt of funds in an amount no lesser in value than the value of the e-money issued; (ii) stored on an electronic device; … (iii) accepted as a means of payment by parties other than the issuer; and (iv) convertible into cash'.[4] Mobile money is a form of e-money deriving its name from the fact that the value is transferred via mobile networks

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1 Global System for Mobile Communications Association ('GSMA') has reported that in 30 markets in 2016, there were 10 times more active mobile money agents than bank branches, and the number of registered customer accounts grew 35 per cent to a total of 556 million globally: GSMA, 'State of the Industry Report on Mobile Money – Decade Edition: 2006–2016' (Report, March 2017) 17–18 ('Industry Report 2006–2016'); GSMA, '2015 State of the Industry Report: Mobile Money' (Report, February 2016) 6 ('Industry Report 2015').

2 Benjamin Geva and Muharem Kianieff, 'Reimagining E-Money: Its Conceptual Unity with Other Retail Payment Systems' in International Monetary Fund ('IMF') (ed), *Current Developments in Monetary and Financial Law* (IMF, 2005) vol 3, 669.

3 Ibid.

4 Alliance for Financial Inclusion, 'Guideline Note on Mobile Financial Services: Basic Terminology' (Guideline Note, 2012) 4 <http://www.afi-global.org/sites/default/files/publications/MFSWG%20 Guideline%20Note%20on%20Terminology.pdf>.

and recorded on the SIM cards in electronic and mobile devices.[5] For ease and clarity of discussion, we use the term 'e-money' throughout the article.

E-money has been the principal means of increasing access to financial services in many developing countries.[6] E-money is used by people to pay bills, meet daily expenses and remit money to relatives and friends living in remote rural areas. Governments use e-money accounts to pay welfare benefits, replacing cash handouts which are costly due to 'leakage' from inefficient processes or corruption. Numbers of e-money accounts have shown strong and steady growth for the past few years.[7] However, the active usage of these accounts remains low.[8] Accounts are often used to simply receive payments which are quickly withdrawn as cash. This does not lead to the development of a vibrant digital financial ecosystem that truly supports financial inclusion.

Low usage is attributable to a range of reasons, with a principal one being economic disincentives to store money electronically.[9] Customers in developing countries may have more incentive to store funds in their e-money accounts if they receive interest on the balance. If the e-money account is non-interest bearing there is little incentive to store what little money these customers have as e-money. This effect is compounded when e-money customers are charged fees for cash-in and/or cash-out transactions.[10] Simply put – when non-interest bearing accounts attract fees, no matter how minimal the fees, customers are likely to be discouraged from storing funds in those accounts and may instead choose to store their money as cash. When customers of M-PESA (mobile money's 'poster child') were asked what additional services they would like, the most frequent response was to earn interest.[11] Interest payments, even on small balances, can act as an effective incentive to enrol and retain users by providing low-income customers with an opportunity to earn a return on the little amount of money they have.[12]

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5 Ibid.

6 GSMA, 'Industry Report 2006–2016', above n 1, 17–18.

7 According to GSMA's reports year-on-year growth in the number of registered mobile money accounts has remained strong: 35 per cent (2016), 31 per cent (2015) and 33 per cent (2014): GSMA, 'Industry Report 2015', above n 1, 6, 32; GSMA, 'Industry Report 2006–2016', above n 1, 17.

8 In December 2016, there were 556 million registered mobile money accounts globally – of which 174 million were active on a 90-day basis: GSMA, 'Industry Report 2006–2016', above n 1, 17. This was approximately the same proportion of active accounts as in 2015: GSMA, 'Industry Report 2015', above n 1, 6.

9 A recent study by FinMark Trust found that, for example, in Zimbabwe customers viewed mobile money accounts as having insufficient return because no interest is paid on such an account. They viewed an opportunity cost of storing the money electronically for which they were not recompensed: FinMark Trust, 'Why Use Accounts? Understanding Account Usage through a Consumer Lens' (Report, 2016) 43.

10 Mireya Almazán and Nicolas Vonthron, 'Mobile Money for the Unbanked: Mobile Money Profitability: A Digital Ecosystem to Drive Healthy Margins' (Report, GSMA, November 2014) 18.

11 Tilman Ehrbeck and Michael Tarazi, 'Putting the Banking in Branchless Banking: Regulation and the Case for Interest-Bearing and Insured E-money Savings Accounts' in World Economic Forum, 'The Mobile Financial Services Development Report 2011' (Report, May 2011) 37, 38, citing Caroline Pulver, Tavneet Suri and William Jack, 'The Performance and Impact of M-PESA: Preliminary Evidence from a Household Survey' (Presentation, Financial Sector Deepening Kenya, June 2008).

12 Ehrbeck and Tarazi, above n 11, 38.

Regulators globally often prohibit interest payments on e-money accounts.[13] This may be because of the concern that allowing interest payments will result in e-money funds resembling bank deposits which may mislead customers into believing their funds will be treated and protected as deposits. It may also be because e-money providers will then seem to have an unfair advantage over traditional deposit-taking institutions that are already burdened by prudential regulation and may be finding it difficult to compete with lightly regulated e-money providers. However, these reasons are flawed and cannot be used to support the prohibition of interest payments on e-money accounts. In this article we analyse these flaws, for what we believe is the first time, from a legal perspective. Our legal analysis is based on a common law framework. However, the policy implications presented in this article can be applied globally. We conclude that many financial regulators should be doing more to encourage e-money providers to use the interest revenue from the e-money float[14] for the benefit of their customers. Interest revenue should be used to promote the frequent and sustained use of e-money products. Frequent and sustained usage of e-money products is a critical feature of successful digital ecosystems. Channelling the interest revenue for the benefit of customers will see low-income customers reap real economic benefits from being financially included.

To date, there has been insufficient focus on the potential of encouraging the payment of interest on e-money. One reason is that providers (also referred to as 'issuers' in the literature and in this article) often ignore this revenue when determining the profitability of their e-money businesses.[15] This is because: (a) some regulators set restrictions on how e-money providers can use interest earned on the e-money float;[16] (b) some providers forgo the interest as a form of compensation to the commercial banks with which the customers' funds are deposited;[17] and (c) as this is a fee-driven business, it is easy to overlook the potential for interest on the float to be meaningful, particularly when designing a system that will of necessity commence with a very small float. Yet assuming the provider still receives some interest revenue on its float, irrespective of how small the amount may initially be, providers should be encouraged to either pass this interest through to customers, or use it to offset and reduce certain transaction costs. Either option should, in turn, encourage customers to more

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13 See, eg, the Philippines: Bangko Sentral ng Pilipinas, 'Circular No 649: Series of 2009' (Guidelines, 9 March 2009) s 4(c); the United Kingdom ('UK'): Financial Conduct Authority, 'The FCA's Role under the Electronic Money Regulations 2011: Our Approach' (Report, June 2013) 4; Kenya: Michael Tarazi and Paul Breloff, 'Nonbank E-Money Issuers: Regulatory Approaches to Protecting Customer Funds' (Report No 63, Consultative Group to Assist the Poor ('CGAP'), July 2010) 7; Malaysia: Payment Systems Policy Department, 'Guideline on Electronic Money (E-Money)' (Guidelines, Document No BNM/RH/GL 016-3) Guideline 13.1(iii); *South Africa: Mobile Money* (17 March 2015) Norton Rose Fulbright <http://www.nortonrosefulbright.com/knowledge/publications/126891/mobile-money>; and Brazil and Peru: Xavier Faz, 'A New Wave of E-Money in Latin America' on *CGAP* (11 June 2013) <https://www.cgap.org/blog/new-wave-e-money-latin-america>.

14 The e-money float refers to the total amount of issued stored value represented electronically or as e-money in customers' and agents' e-money accounts.

15 Almazán and Vonthron, above n 10, 6.

16 Ibid.

17 Ibid.

actively use e-money services.[18] For example, cash-in is often free of charge for customers, but this is typically subsidised by much higher cash-out charges.[19] Fees for a cash withdrawal with no offsetting benefits, such as interest, severely limit the actual and perceived value to customers of e-money services.

Reducing, and particularly eliminating, charges on deposits and withdrawals, has the potential to boost patronage of an e-money ecosystem.[20] The interest on the float will never of itself replace all charges, so a fee-free service for cash-in and cash-out requires a business model in which the provider is earning their income from ancillary services such as fees for payments, micro-loans and micro-insurance. Nonetheless, for as long as charges remain, some compensation by providers for customers' transaction costs will encourage more active use of e-money accounts.

Providing customers with real economic incentives for using electronic payments is becoming a major focus of some governments. Such incentives can take the form of providing discounts for payments conducted through electronic payment systems or allowing income tax deductions or VAT ('Value Added Tax') rebates based on the usage of electronic payments.[21] The Indian government, for example, has announced several discounts for customers using electronic payment systems for a range of transactions, as part of its recent efforts to: (i) promote electronic payments so as to reduce what is euphemistically termed 'leakage' in government payments; and (ii) to deal with the significant economic challenges resulting from its demonetisation policy.[22] However, more can be done. Financial regulators can promote the payment of interest on e-money accounts, and this article explains how that can be done.

We analyse how allowing interest payments does not make e-money funds bank deposits. We also argue that as non-bank e-money providers are not intermediating funds, they are not introducing risks that prudential regulation aims to contain and therefore the suggestion that they should be subject to prudential regulation does not make sense.[23] Funds are not intermediated if e-money providers are required to hold an amount equal to the e-money issued in a pooled account in trust with a prudentially regulated bank. Ring-fencing customers' funds in a trust account will protect customers from insolvency, liquidity and operational risks introduced by the provider or its agents, as has been well established by literature.[24] Customers' funds can be protected (isolated) from the insolvency risk of the provider by using a trust to create a trustee–

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18 Simone di Castri, 'Mobile Money: Enabling Regulatory Solutions' (Report, GSMA, February 2013) 4.

19 Almazán and Vonthron, above n 10, 18.

20 Di Castri, above n 18, 29.

21 See Sameer Govil, 'Perspectives on Accelerating Global Payment Acceptance' (Policy Paper, Visa, 2016) 4 <https://usa.visa.com/dam/VCOM/download/visa-everywhere/global-impact/perspectives-on-accelerating-global-payment-acceptance.pdf>.

22 Saritha Rai, 'In Global First, India Offers Discounts for Payments Made Online', *Bloomberg* (online), 12 December 2016 <https://www.bloomberg.com/news/articles/2016-12-12/in-global-first-india-offers-discounts-for-payments-made-online>.

23 See Ehrbeck and Tarazi, above n 11, 38.

24 See Jonathan Greenacre and Ross P Buckley, 'Using Trusts to Protect Mobile Money Customers' [2014] (July) *Singapore Journal of Legal Studies* 59.

beneficiary relationship between the provider and customers.[25] Even in civil law jurisdictions where trusts are usually not available to protect customers' funds, fund isolation and safeguarding are nonetheless achievable by using a mix of fiduciary transactions, mandate contracts and regulatory rules.[26] Our analysis assumes that market conduct regulation is used to ensure there are adequate mandatory disclosures by providers to customers such that customers are well aware of what their rights and responsibilities are with respect to the funds they store electronically. Furthermore, financial literacy education is used to reinforce consumer awareness in this area.

This article presents a number of approaches for policymakers and regulators worldwide to follow and thereby successfully promote the payment of interest to either or both providers and customers. Encouraging the payment of interest will promote digital payments, improve financial inclusion and therefore lift economic growth.

Part II of this article explains how the proceeds generated on e-money accounts can be treated, including passing those proceeds on to customers. Part III analyses the rationales behind prohibiting interest payments on e-money accounts, and argues these rationales are flawed and without legal or regulatory basis. Part IV presents examples of a number of benefits which could flow from allowing interest payments on e-money accounts. Part V details different approaches to enabling interest payments, and Part VI concludes.

II THE USE OF PROCEEDS ON THE E-MONEY FLOAT

Currently, in many countries, non-bank e-money providers cannot freely use the interest accrued on the trust account, and specifically they cannot pass on these proceeds to customers.[27] In some countries, such as Kenya, the provider is allowed to use the interest earned.[28] In Tanzania and Ghana, non-bank e-money providers are required to pass on the interest earned on e-money trust accounts.

The Bank of Tanzania, as a pioneer in this regard, issued a circular in February 2014[29] that requires interest on the trust account to be used to benefit the customers and agents in ways such as funding customer education campaigns, or providing other benefits such as insurance to customers, or paying interest directly to customers.[30] The Bank of Tanzania gives mobile network operators ('MNOs') some discretion in determining how customers might benefit from the

25 Louise Malady, Ross Buckley and Cheng-Yun Tsang, 'Regulatory Handbook: The Enabling Regulation of Digital Financial Services' (University of New South Wales Law Research Paper No 2016-05, 1 December 2015) 43 <https://ssrn.com/abstract=2715350>.

26 David Ramos et al, 'Protecting Mobile Money Customer Funds in Civil Law Jurisdictions' (2016) 65 *International & Comparative Law Quarterly* 705, 716–28.

27 See, eg, the Philippines, the UK, Kenya, Malaysia, South Africa, Brazil and Peru: above n 13.

28 Tarazi and Breloff, above n 13, 7 n 12.

29 *On Utilisation of Interest from the Trust Accounts* (Tanzania) Circular No NPF/MFS/01/2014: see Simone di Castri and Lara Gidvani, 'Enabling Mobile Money Policies in Tanzania' (Report, GSMA, February 2014).

30 Malady, Buckley and Tsang, above n 25, 49 (Box 1).

income earned on trust accounts, provided the interest proceeds are 'used for the direct benefit of the electronic money holders',[31] and provided that 'the electronic money issuer shall not utilise the interests accrued in the trust account without written approval of the [Central] Bank'.[32] This mandate has given rise to arguably the first interest-earning e-money product, Tigo Pesa, which shares revenue generated from the e-money float trust account with customers.[33] As a condition for allowing interest payments, non-bank providers are not allowed to 'advertise the mobile money wallet as a savings account and [are] not even allowed to promise a specific interest rate'.[34] A non-bank provider may only discuss 'historic "distribution of profits in trust accounts"'.[35]

The Bank of Ghana adopts a more prescriptive approach by mandating the proportion of interest e-money providers must pass on to e-money account holders. Section 10(5) of the country's *E-Money Guidelines of 2015*, for example, requires that '[e]-money issuers shall pass-through not less than 80% of the interest accrued on the pooled e-money float net of any fees or charges related to the administration of the pooled float accounts to e-money holders'.[36] Failure to do so incurs monetary penalties. On the other hand, e-money providers are allowed to retain '[a]ny amount in excess of the minimum of 80% of interest'[37] and 'interest generated on over-the-counter transactions which are not associated with a given customer account'.[38]

The above examples suggest that there are generally two typical ways to pass the benefit of the interest on the e-money float to customers.[39] One is to allow the provider to make direct cash payments to customers. The other is to permit the provider to pass on the benefit of the interest accruing on the e-float in the form of non-interest-payment benefits to customers.[40] The latter approach means the provider does not need to make cash interest payments to its customers, but, instead, use the interest accrued to benefit customers in other ways, such as

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31 Section 30(1) of the *Electronic Money Regulations 2015* (Tanzania) requires that '[i]nterest accrued in the trust account shall be used for the direct benefit of the electronic money holders as determined by the Bank [Bank of Tanzania]'; see also Claudia McKay, 'Interest Payments on Mobile Wallets: Bank of Tanzania's Approach' on *CGAP* (28 June 2016) <http://www.cgap.org/blog/interest-payments-mobile-wallets-bank-tanzania%E2%80%99s-approach>.

32 *Electronic Money Regulations 2015* (Tanzania) reg 30(3).

33 McKay, above n 31; 'Tanzania's Tigo Launches Interest-Earning Mobile Money Service', *Reuters* (online), 12 September 2014 <http://www.reuters.com/article/tanzania-tigo-telecomunications-idUSL1N0RB1BT20140911>; Chris Williamson, *Financial Inclusion in Tanzania: Tigo Rewards Its Mobile Money Customers* (11 September 2014) GSMA <https://www.gsma.com/mobilefordevelopment/programme/mobile-money/financial-inclusion-in-tanzania-tigo-rewards-its-mobile-money-customers>.

34 McKay, above n 31.

35 Ibid.

36 Bank of Ghana, 'Guidelines for E-Money Issuers in Ghana' (Guidelines, 6 July 2015) art 10(10).

37 Ibid art 10(6).

38 Ibid.

39 Note that in Ghana, MTN now allows its customers to opt out of receiving interest payments. This opt-out feature has been added to its products in response to customer requests which MTN understand are based on religious beliefs restricting some customers from taking interest: Abubakar Ibrahim, 'MTN Reiterates Commitment to Pay Interest on Mobile Money', *Joyonline* (online), 16 April 2017 <http://www.myjoyonline.com/business/2017/April-16th/mtn-reiterates-commitment-to-pay-interest-on-mobile-money.php>.

40 Ehrbeck and Tarazi, above n 11, 40.

reducing fees for cash-out or providing customers with some financial literacy enhancing training programs. Providers may retain a certain portion of the interest accrued under these models depending on specific regulatory requirements. Nuanced or mixed approaches are also possible. A creative conditional approach, for example, could be adopted in which e-money providers are allowed to retain the interest on the float provided certain conditions are met such as the provision of fee-free cash-in and cash-out, or perhaps fee-free cash-in with a limit on the fees charged on cash-out.[41]

In the next two Parts, we analyse why the classical reasons for prohibiting interest payments are largely misconceived and argue that allowing interest payments can bring many benefits to an ecosystem.

III THE FLAWED RATIONALE BEHIND PROHIBITING INTEREST PAYMENTS ON THE E-MONEY FLOAT

The above analysis suggests interest payments can benefit both customers and providers, thus raising the question of why interest payments by non-banks to account holders are prohibited.[42]

The principal reason some regulators seem to prohibit such payments is the concern that allowing them will result in e-money funds resembling bank deposits and thereby misleading customers into believing their funds will be *treated* and *protected* as deposits. Secondarily, some regulators are concerned that permitting non-bank providers, like MNOs, to offer what appear to be 'deposit-like' services without subjecting them to the same regulation as deposit-taking entities creates an uneven playing field between MNOs and deposit-taking entities.

A Interest Payments on E-Money Balances Do Not Make Those Balances Akin to Deposits

The argument seems to be that if interest is paid on an e-money balance then that balance is akin to a bank deposit and the provider offering the e-money account should be regulated in the same way as a deposit-taking institution (ie, fall under the purview of prudential regulation). However, this presupposes that the payment of interest is a distinctive feature of a bank deposit; and it is not.

The term 'deposit' or 'bank deposit' is largely undefined in English common law. English common law focuses on the legal relationship between the banker and customer that flows from a deposit as opposed to the definition of a deposit per se. For example, money paid into a deposit account is understood under common law as 'a loan to the banker, not a specific fund held by him in a

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41 We acknowledge this introduces cross-subsidisation which may conflict with other objectives of regulators, such as the efficient pricing of products to reflect their costs.

42 See, eg, the Philippines, the UK, Kenya, Malaysia, South Africa, Brazil and Peru: above n 13.

fiduciary capacity'.[43] Therefore, the banker is liable to the customer for the same amount of money as that which is deposited in the account.[44] The relationship between a banker and their customer can therefore be summarised as 'that of debtor and creditor'.[45]

An obligation to pay interest is not an indispensable element of a debtor–creditor relationship. Classical analyses of the essential characteristics of the business of banking do not suggest this. Isaacs J in the High Court of Australia stated that '[t]he essential characteristics of the business of banking … may be described as the collection of money by receiving deposits upon loan, repayable when and as expressly or impliedly agreed upon, and the utilization of the money so collected by lending it again in such sums as are required'.[46] This definition of the business of banking places the receipt of deposits and their intermediation at the core of banking and leaves the interest payment issue unanswered.

Other English sources of law fail to resolve the issue clearly. Statutes like *The Banking Act 1987* and the *Financial Services and Markets Act 2000* ('FSMA 2000') in the UK suggest that the payment of interest is not necessary on a bank deposit. The term 'deposit', for example, is defined by the FSMA 2000 as '[r]ights 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'.[47]

Case law in the United States ('US') is clearer when it comes to whether the payment of interest is a distinctive feature of a bank deposit and the answer is it is not. As compiled and interpreted by *Michie on Banks and Banking*, '[i]t is a well settled rule that a bank deposit *does not bear interest,* in the absence of statute or a special contract so providing, unless the bank is in default. *A deposit with a bank as mere bailee amounts to physical custody for safekeeping, and relieves it of any obligation to pay interest*'.[48] This highlights two features of bank deposits under US case law. One is that a bank's contractual relationship with a depositor can be 'to pay with or without interest',[49] and the other is that the depositor's primary compensation for depositing their money with a bank is

43 Mark Hapgood, *Paget's Law of Banking* (Butterworths, 12th ed, 2002) 177; see also *Pearce v Creswick* (1843) 2 Hare 286; 67 ER 118; cf *Re Head*; *Head v Head* [1893] 3 Ch 426; *Re Head v Head [No 2]* [1894] 2 Ch 236; *Akbar Khan v Attar Singh* [1936] 2 All ER 545, 548 (Lord Atkin); *Re Tidd*; *Tidd v Overell* [1893] 3 Ch 154, 156 (North J).

44 *United Dominions Trust Ltd v Kirkwood* [1966] 2 QB 431; *Foley v Hill* (1848) 2 HL Cas 28.

45 *Foley v Hill* (1848) 2 HL Cas 28, 45 (Lord Campbell).

46 *Commissioners of the State Savings Bank of Victoria v Permewan Wright & Co Ltd* (1914) 19 CLR 457, 470–1.

47 *Financial Services and Markets Act 2000* (UK) sch 2 para 22 (emphasis added); Hapgood, above n 43, 9.

48 *Michie on Banks and Banking* (The Michie Company, 1950) vol 5A, 242–3 (emphasis added) (citations omitted); *Re Kruger*, 139 Misc 907, 911 (NY Surr Ct, 1931); *Parkersburg National Bank v Als*, 5 W Va 50 (1871).

49 *Michie on Banks and Banking*, above n 48, 245; *Dottenheim v Union Savings Bank & Trust*, 40 SE 825, [3] (Ga, 1902).

'security and safekeeping of … funds', not necessarily a monetary return such as interest.[50]

The key message from the above is that if banks are not obliged to pay interest on deposits, and a bank deposit in itself does not require the payment of interest, then the mere fact that a provider is paying interest on e-money balances does not necessarily make it a deposit-taking institution.

Indeed, we go further to argue that an e-money account is distinct from a deposit account due to the very nature of a deposit. One's balance with an e-money issuer is one's money kept in an electronic form with the issuer, whereas one's deposit with a bank represents one's loan to a bank which the bank may then use to on-lend, a process known as intermediation. Intermediation is at the core of the definition and that is what gives rise to prudential regulation and deposit insurance – because governments know they need to make sure banks are able to repay those deposits when depositors come calling regardless of how those funds have been intermediated. The funds held by the issuer of e-money, in contrast, are not to be intermediated.

Arguably, there remains the public association of interest with bank deposits regardless of whether paying interest on e-money does not mean the e-money is legally equivalent to a bank deposit. For this reason, regulators must use consumer disclosure to convey the message that e-money is not a bank deposit. Regulators have a responsibility to be clear on this issue.

B E-Money Interest Payments Do Not Give Providers an Unfair Advantage over Prudentially Regulated Institutions

Analysis of why deposit-taking activities attract prudential regulation establishes it has nothing to do with whether the deposit is interest bearing or not. Therefore, the argument that providers of e-money accounts which pay interest should be subject to prudential regulation is not supported by the evidence. Deposit-taking activities attract prudential regulation for two primary reasons:

- First, banks engage extensively in maturity mismatches by making short-term funds (deposits) available to long-term borrowers. In other words, banks borrow short and lend long; they intermediate funds to facilitate credit allocation. This is what is commonly understood as intermediation. Typically banks manage the maturity mismatch because the pool of short-term loans is large and they can rely on maintaining only fractional reserves of these on-demand deposits. Deposit insurance is also available in some countries to help manage the liquidity risk that arises if things go awry. Despite these protections, comprehensive prudential regulation is still considered necessary to provide another layer of safeguards to

50 *Hall v First National Bank of Jacksonville*, 252 SW 828, 829 [13] (Tex Ct App, 1923), judgment modified 254 SW 522 (Tex Ct App, 1923).

protect the financial system from bank runs and ensure the safety and soundness of banks;[51] and

- Second, failures to protect depositor money can greatly undermine market-wide confidence and trust in the banking system, result in social unrest and require bailouts of banks by governments using public funds.[52]

E-money, if deposited by the provider on trust in an account at a commercial bank, is not *intermediated* by the e-money provider.[53] In this instance, the provider does not need to be prudentially regulated as its conduct is not giving rise to the risks that prudential regulation aims to contain. The intermediation of the funds is being conducted by the commercial bank, which will, in the ordinary course, already be subject to rigorous prudential regulation.[54]

Some may argue further along safety and soundness lines that two consequences may follow if payment of interest is allowed. The first consequence is that allowing non-bank e-money providers to pay interest might incentivise undesired price competition in which the providers compete with one another to provide higher interest rates (using their working capital improperly) to attract customers.[55] This could put at risk the solvency of the provider and undermine public confidence and customer trust in the use of e-money.[56] This argument is readily dismissible for three reasons: 1) the risk to end customers will not be significant provided the float is adequately isolated and safeguarded, especially when a trust is adopted; 2) there is no solid evidence that 'paying interest would encourage unsound investment any more than any other cost of the issuer',[57] and price competition can occur in any scenario where customers are charged a fee; and 3) as this argument ignores the situation in which non-bank providers are permitted to pass on the interest.[58] A pass-through option prevents providers from using their own working capital to pay interest.[59]

A further possible argument is that interest payments on e-money accounts could result in the significant migration of funds from banks to e-money products. This would eventually raise funding costs for banks and lead banks to charge higher interest rates on loans or tighten lending – a cost ultimately borne

51 See Frederic S Mishkin, 'Prudential Supervision: Why Is It Important and What Are the Issues?' in Frederic S Mishkin (ed), *Prudential Supervision: What Works and What Doesn't* (University of Chicago Press, 2001) 1.

52 For how failures to protect deposit money would result in social unrest, see a commentary on the very recent Italian Banking Crisis: George Friedman, 'The Public's Confidence in Banks is Eroding in Eurasia', *Business Insider* (online), 9 February 2016 <http://www.businessinsider.com/publics-confidence-in-banks-is-eroding-in-eurasia-2016-2?IR=T>. Bailouts of banks by government are very common in the case of retail bank runs. For an analysis of a classical example, see Paul Goldsmith-Pinkham and Tanju Yorulmazer, 'Liquidity, Bank Runs, and Bailouts: Spillover Effects During the Northern Rock Episode' (2010) 37 *Journal of Financial Services Research* 83.

53 See Greenacre and Buckley, above n 24, 64.

54 Ehrbeck and Tarazi, above n 11, 38.

55 Ibid 40.

56 Ibid.

57 Tarazi and Breloff, above n 13, 7 n 11.

58 Ehrbeck and Tarazi, above n 11, 40.

59 Tarazi and Breloff, above n 13, 7 n 11.

across the wider economy.[60] Such a consequence, however, is unlikely when e-money account holders are paid interest at or below that of bank deposit holders, as must be the case in any pass-through system. Furthermore, shifting funds from bank accounts to e-money wallets is not without cost so depositors will lack an incentive to do so in the absence of significantly higher interest payments, which are impossible. Let's take Tanzania's Tigo Pesa as an example: its first payment of the interest accrued on the trust account ($8.7 million) in September 2014 represented 3.5 years of income earned at an average of 7–9 per cent per annum,[61] whereas the average deposit interest rate in Tanzania in 2014 was around 9.86 per cent.[62] This probably explains why the feared migration of funds did not happen in Tanzania. On the contrary, the country saw an increase in numbers of bank accounts after Tigo Pesa started paying interest to its customers.[63] This suggests the increased uptake of e-money accounts may have encouraged the unbanked to participate in the banking sector as they became more financially literate and confident.

The foregoing analysis has explained that simply because a non-bank e-money provider is allowed to pay interest earned on the e-float for the benefit of customers, it does not mean the provider is intermediating customers' funds or engaging in investment activities which could jeopardise the safety and soundness of the system more generally, or is able to offer interest rates at a level which result in funds migrating away from deposit-taking institutions to e-money providers.

Allowing non-bank e-money providers to pay out interest for the benefit of customers has been an unwelcome proposition among regulators since the emergence of e-money. As we argued in this Part, such a position mainly reflects a misperception that incorrectly attributes the payment of interest as a distinctive feature of a bank deposit and also assumes that a deposit-taking activity is the same as funds intermediation. Neither is true. Recognising and correcting for these misperceptions would give regulators more policy space when it comes to regulating e-money and encouraging the uptake and usage of it.

IV BENEFITS OF ALLOWING INTEREST PAYMENTS ON THE E-MONEY FLOAT

Allowing non-bank e-money providers to freely use interest from customers' funds held in a trust account and conferring the option to pass this interest onto agents and customers can bring various benefits to the mobile money ecosystem and the financial system more generally. Examples are outlined below.

First, passing on interest to customers would provide underbanked, low-income customers with an opportunity to earn a return on the little savings they

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60 McKay, above n 31.

61 Ibid.

62 *Deposit Interest Rate in Tanzania* (2017) Trading Economics <http://www.tradingeconomics.com/tanzania/deposit-interest-rate>.

63 McKay, above n 31.

have. One of the fundamental purposes of promoting the use of e-money is to advance financial inclusion and reduce poverty.[64] Allowing the provider to pay out interest directly to customers will increase customers' income.[65] Although some argue that interest accrued on e-money accounts will be negligible, as Ehrbeck and Tarazi rightly note, 'e-money accounts typically pool client funds for an extended period, [and] the total balance often qualifies for higher interest rates than might otherwise be earned by low-value individual bank accounts'.[66] For the poor, every dollar counts.

Second, following on from the first benefit, the economic incentive offered by the interest payment is likely to increase consumer uptake of e-money. Assuming that all other conditions stay the same, extra income should attract more customers.

Third, allowing interest payments to agents could incentivise agents to hold greater stores of e-money thereby improving the e-money liquidity in the ecosystem. Insufficient liquidity at the agent level retards the growth of many systems, and MNOs often struggle with how to best promote it.[67] Among the various functions e-money agents perform, holding sufficient stores of e-money to facilitate e-money transactions is the most important. The operators generally incentivise agents by paying them a commission. On average, agent commissions for cash-in and cash-out are estimated to be 0.7 per cent and 1 per cent of the transaction value respectively, which constitute a large proportion of the provider's transactional costs.[68] If, however, interest payments are allowed, providers could reduce their agent commission as agents will be compensated with interest.

Fourth, interest payments on e-money accounts could teach customers the time value of money and in turn advance their financial literacy.

Fifth, it is also likely that agents and customers who receive the interest benefits of their stored value would have increased trust and confidence in the financial system more generally, which would further encourage them to establish formal relationships with banks, credit unions and microfinance institutions. The Tanzanian experience mentioned previously illustrates this point. Non-bank e-money providers should not be considered solely as the competitors of traditional financial service providers. On the contrary, the entry of these new participants in the financial system may benefit traditional providers by enlarging their customer bases. This possibly explains why, despite the rapid rise of mobile money, over 90 per cent of the 721 million adults who gained access to new financial accounts between 2011 and 2014 opened accounts at

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64 See Ross P Buckley and Louise Malady, 'The New Regulatory Frontier: Building Consumer Demand for Digital Financial Services – Part I' (2014) 131 *Banking Law Journal* 834, 834–5.

65 Ehrbeck and Tarazi, above n 11, 38.

66 Ibid.

67 Neil Davidson and Paul Leishman, 'Building, Incentivising and Managing a Network of Mobile Money Agents: A Handbook for Mobile Network Operators' (Report, GSMA, 2011) 2 <http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2011/02/Agent-Networks-full.pdf>.

68 Almazán and Vonthron, above n 10, 18 (Annex A).

financial institutions, with only some 10 per cent opening mobile money accounts as their primary account.[69]

Lastly, regulatory leadership to encourage e-money providers to make more use of the interest revenue generated from the float is likely to have benefits, if interest payments to customers are not permitted for whatever reason. For example, if providers used a certain portion of the interest on the e-money float to cover some of their transactional or even operational costs, then the broader customer base and the ecosystem would benefit because the provider could offer a lower cost product for customers. The provider could provide free cash-in and/or cash-out or reduce fees and charges. Charging for cash-in and cash-out discourages the poor and disadvantaged from using e-money in the first instance; if putting money in, or taking it out, costs money, then many potential customers will naturally decide to keep their funds in cash.

Despite the potential benefits which interest-bearing e-money products may bring to the ecosystem, it is not suggested that policymakers and regulators *must mandate* the payment of interest on e-money. Rather, by presenting the potential benefits of allowing interest payment on e-money accounts, we seek to raise regulators' awareness of their policy options. It is entirely open to regulators to *permit and encourage* the payment of interest, provided certain requirements are met to ensure customers' funds are adequately protected. E-money providers should be encouraged to decide how to best use the interest accrued to benefit customers. Mandating the payment of interest on e-money could discourage providers from offering the e-money product in the first instance. Mandating the payment of interest is not aligned with a 'light-touch' regulatory framework which is appropriate for providers of e-money.

V APPROACHES TO ENABLING INTEREST PAYMENTS ON THE E-MONEY FLOAT

We present four main approaches for policymakers and regulators to follow when allowing or encouraging interest payments on e-money balances. These are referred to respectively as the *proportional prudential regulation approach*, *permissive approach*, *mandated approach* and *trust-protector approach*. Each is discussed below.

The *proportional prudential regulation approach* allows non-bank providers to pay interest and is characterised by: 1) the e-money products being legally recognised as deposits by the jurisdiction; 2) the non-bank providers being subject to light, proportional prudential banking regulation, such as a specialised licence and minimum capital requirements well below those required of banks; and 3) the e-money float being covered by a deposit insurance scheme.[70]

69 Susy Cheston et al,'The Business of Financial Inclusion: Insights from Banks in Emerging Markets' (Report, Institute of International Finance, July 2016) 10.

70 See Faz, above n 13; Banco Bilbao Vizcaya Argentaria ('BBVA') Financial Inclusion Unit, 'Digital Economy Outlook' (Report, September 2015) 10; Mireya Almazán and Jennifer Frydrych, 'Mobile

Colombia is arguably the first country with the legal framework in place to enable this approach but its implementation remains a work in progress.[71] The drawback of this approach is its expense: compliance with even light prudential regulation is costly, and deposit insurance usually requires payment of a premium which will ultimately be borne by customers.

The *permissive approach* is our term for the approach used by Tanzania. Under it, non-bank providers must use the interest earned on trust accounts for the direct benefit of the e-money holders but how they do so is up to them, subject to central bank approval. In other words, the payment of interest is *permitted* but *not required*. Providers can propose how they intend to use the interest to directly benefit customers, subject to written approval from the Bank of Tanzania.[72] Tigo Pesa in Tanzania proposed to pay interest directly to customers in September 2014 and this was approved by the Bank of Tanzania. This proved to be a successful initiative, leading Tigo Pesa to make nine such payments as of August 2016.[73] This approach should be more cost-efficient than the prudential regulation approach and gives the provider some freedom to exercise its business judgment to use e-money proceeds strategically.

Unlike the permissive approach, the *mandated approach* requires that the provider *must* pass on *a certain portion* of interest accrued on the float, net of any fees or charges related to the administration of the e-money accounts, to customers. Once that proportion is paid, the provider is allowed to retain any remaining interest earned. This is the approach taken by Ghana. It is rather prescriptive and does not provide the issuer with much flexibility to utilise the interest innovatively, but it does have the advantage of ensuring customers receive interest payments which may make it an approach which is most likely to support the viability of a digital financial ecosystem.[74]

The *trust-protector approach* is the final approach. Unlike the previous three approaches in which a statutory mandate is needed, the trust-protector approach advocates the use of an innovative trust mechanism to enable interest payments in common law countries. As previously mentioned, most prudential regulatory concerns can be effectively addressed by the proper use of trusts. Insolvency, liquidity and operational risks introduced can be mitigated by the fund isolation function of trusts and fund safeguarding rules in the trust deed. The regulator can be designated as Protector in the trust deed to take an active approach in monitoring the provider's fulfilment of its role as trustee and to ensure interest payments are made as specified in the trust deed.[75]

Financial Services in Latin America & the Caribbean: State of Play, Commercial Models, and Regulatory Approaches' (Report, GSMA, May 2015) 22.

71 BBVA Financial Inclusion Unit, above n 70.

72 McKay, above n 31.

73 Beatrice Materu, 'Tigo Pesa Users Share $2.5 Million Profit in Tanzania', *The EastAfrican* (online), 12 August 2016 <http://www.theeastafrican.co.ke/business/Tigo-Pesa-users-share-USD2-5-million-profit-in-Tanzania/2560-3342556-9stn48/index.html>.

74 Buddy Buruku and Stefan Staschen, 'How Ghana Set Its Rules on Interest Payment on E-Money Accounts' on *CGAP* (29 June 2016) <http://www.cgap.org/blog/how-ghana-set-its-rules-interest-payment-e-money-accounts>.

75 Greenacre and Buckley, above n 24, 69–70.

The benefits of this approach are twofold. First, it can be readily and easily implemented by the regulator alone without requiring further lawmaking, provided the regulator has a mandate to regulate e-money. All the regulator needs to do is require certain provisions in the trust deed and ensure compliance with them by the provider.

Second, in addition to outlining the duties and powers of the regulator as Protector, the trust deed can require that either (i) all, or a portion of, the interest earned on the float be paid to account holders; or (ii) such interest be used to directly benefit account holders (eg, by offsetting cash-in or cash-out fees) under the supervision of the Protector.

The choice of approach is for each central bank to make in light of local circumstances, and what is most likely to promote its digital financial ecosystem. This choice is, however, deserving of considerable attention as the payment of interest to e-money holders, or its use to otherwise reduce the charges they face, is one that offers real potential to advance financial inclusion.

VI CONCLUSION

There are legitimate and valid reasons for regulators to allow and encourage the payment of interest on e-money balances. The counter-argument that paying interest on e-money balances means the provider is taking deposits and should be subject to prudential regulation is very weak because, as detailed in this article, bank deposits do not require the payment of interest, and therefore paying interest on e-money balances does not equate them to deposits. Furthermore, as we have outlined, sufficient safeguards can be put in place using trust mechanisms to protect the e-money balances and as the funds are not being intermediated there is no need for overly burdensome prudential regulation of e-money providers. The regulatory approach must be proportionate to the risks. Prudential regulation is appropriate for financial entities that are intermediating customers' funds to facilitate credit allocation. E-money providers that are required to hold and isolate customers' funds using a trust at a bank are not intermediating customers' funds and are not generating the type of risks prudential regulation aims to contain.

The benefits of allowing interest payments are evident on both the demand and supply side of e-money services. For customers, receiving interest payments on their e-money accounts can encourage them to save more, become more financially literate and participate to a greater extent in the formal financial system. For agents, who often act as independent contractors of the provider, receiving interest payments on their e-money balances should encourage them to hold greater stores of e-money and thus promote liquidity in the e-money service, thereby ameliorating what has been to date an enduring problem in e-money ecosystems.

There is therefore a strong case for regulators to encourage and allow interest payments on e-money, provided sufficient protections are in place for customers.