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The Future Is Mobile: Financial Inclusion and Technological Innovation in the Emerging World

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Abstract

The digital revolution is in full bloom and technology is being used to solve the world’s most challenging problems, yet traditional banking excludes many of the world’s poorest people from taking advantage of the full fruits of the financial system. Especially in emerging and developing economies, implementing mobile financial systems can speed financial inclusion and spur economic growth. There is space for regulatory reform that addresses concerns with data security and consumer privacy, yet does not stifle innovation. Throughout history, resistance to innovation has generally proved futile, and countries that refuse to change risk missing opportunities.

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Introduction

Financial services are the lifeblood of an economy, enabling households and businesses alike to save, invest, and protect themselves against risk. Yet in many emerging economies today, the majority of individuals and small businesses lack access to basic savings and credit products, which hinders economic growth and perpetuates poverty. Two billion people in the developing world lack access to a bank, and 200 million small businesses cannot get the credit they need to grow, a gap estimated at \$2.2 trillion.

The solution can be summed up in two words: digital finance, the idea that individuals and companies can have access to payments, savings, and credit products without ever stepping into a bank branch. This is possible through digitization, which can essentially turn a smartphone into an all-in-one wallet, checkbook, bank branch, and accounting ledger.

Financial inclusion could help boost economies, especially in parts of the world that need it most.¹

Innovation and regulation are not natural enemies. They have been pitted as such by forces committed to tradition and resistant to change. Law can be used as a tool to foster innovation and impact social change while still protecting consumers from financial crime.² Although “500 million economically active poor people in the world are operating microenterprises and small businesses,”³ millions of people are still excluded from the wide spectrum of credit, investment, and wealth-building financial services that are necessary for them to move beyond subsistence living. The question this paper seeks to answer is whether developing,⁴ economically-stable economies

1 James Manyika & Roger Voorhies, *What Digital Finance Means for Emerging Economies*, FORTUNE (Oct. 24, 2016), <http://fortune.com/2016/10/24/digital-finance-emerging-economies>.

2 Examples of financial (or “white collar”) crime include identity theft, counterfeit currency, money laundering, or unauthorized banking activity: “Financial crime threatens the safety and soundness of financial systems world-wide. In some cases, these crimes threaten the security and safety of the nation. These crimes range from fairly simple operations carried out by individuals or small groups to highly sophisticated rings seeking funding for criminal enterprises or terrorism.” See *Financial Crime*, U.S. DEP’T OF TREASURY: OFF. OF THE COMPTROLLER OF THE CURRENCY, <https://www.occ.gov/topics/bank-operations/financial-crime/index-financial-crime.html>. See also PRICE WATERHOUSE COOPER, GLOBAL ECONOMIC CRIME SURVEY 2016: FINANCIAL SERVICES INDUSTRY INSIGHTS 3, <https://www.pwc.com/gx/en/assets/gecs/gecs-fs-industry-cut-2016.pdf> (other examples of financial crime include cybercrime, accounting fraud, bribery & corruption).

3 Joana Ledgerwood, SUSTAINABLE BANKING WITH THE POOR: MICROFINANCE HANDBOOK: AN INSTITUTIONAL AND FINANCIAL PERSPECTIVE 1 (World Bank 2002).

4 Although the terms “developed” and “developing” are falling out of favor – and perhaps rightly so – the difference between the two can typically be boiled down to the amount of per capita, or average income per person; developed nations usually have a per capita income greater than USD \$12,000 (and usually an average of \$38,000), whereas developing nations have lower per capita incomes. Among developing nations, there is a further segmentation between moderately developed (per capita income between \$1,000 to \$12,000) and less developed countries (per capita income of less than \$1,000, and

should embrace emerging digital finance to foster financial inclusion.⁵ Can laws be created that minimize potential threats to individual privacy and data security, while still allowing mobile technology the breathing space that it needs to make a difference?⁶

The Digital Revolution has been taking the emerging world by storm for years, and this article will reveal some of the regulations in Jamaica that are being put in place to contain it. Often faced with poor physical and financial infrastructure and higher need, some developing nations have been apt to embrace technologies like mobile money without doing much diligence on the potential impacts of these technologies.⁷ As a more developed country within a developing region, Jamaica is poised between a rock and a hard place. The question is whether the island nation should risk its economic stability (that nonetheless harbors great poverty and inequality) for an uncertain promise of greater things to come.

It is the province of law to protect especially vulnerable populations. Financial crime is on the rise,⁸ and consumer privacy and security cannot be taken lightly.⁹ As has already been shown in the United States, many laws are inadequate for the task of protecting consumer financial information.¹⁰ Why take the risk of exposing developing and emerging economies to the risk of new technology that could cause economic instability? There are already so many challenges in the emerging world that many of these countries likely believe that the risk may not be worth any potential reward. On

typically around \$500). See Transcript of Margaret Cunningham, *Economic Inequality: Differences in Developed and Developing Nations*, STUDY.COM, <http://study.com/academy/lesson/economic-inequality-differences-in-developed-and-developing-nations.html>. Given that these terms are still used widely in the academic literature, their use herein reflects that use (and not a desire to offend).

- 5 Jane K. Winn & Louis de Koker, *Introduction to Mobile Money in Developing Countries: Financial Inclusion and Financial Integrity Conference Special Issue*, 8 WASH. J.L. TECH. & ARTS 155, 156 (2013) (“Financial inclusion is an important social and economic policy objective for many developing countries. ‘Mobile money refers to the use of a mobile phone handset to deposit, withdraw or transfer funds; and it holds great promise as a policy instrument for promoting financial inclusion. It provides a practical and cost-effective channel to extend basic banking services to many currently unbanked people in urban as well as remote rural areas.’”).
- 6 Eleanor Lumsden, *Securing Mobile Technology & Financial Transactions in the United States*, 9 BERKELEY BUS. L.J. 139 (2013) (analyzing the regulatory challenges in the United States of balancing consumer privacy with innovations in mobile banking).
- 7 Developed countries like the United States, Canada, and many of the countries of Western Europe, for example, generally have been slower in taking advantage of these developments—either because they already have existing infrastructure and systems that make doing so challenging, or because their citizens have not clamored for these services.
- 8 Holly Ellyatt, *Why White Collar Crime is Here to Stay*, CNBC (Aug. 14, 2013), <https://www.cnbc.com/id/100961639> (“White collar crime is estimated to cost the global economy more than \$2 trillion a year. . . .”).
- 9 See, e.g., Andrew Harris, Seymour Goodman, & Patrick Traynor, *Privacy and Security Concerns Associated with Mobile Money Applications in Africa*, 8 WASH. J.L. TECH. & ARTS 245 (2013).
- 10 Lumsden, *supra* note 6, at 139.

the other hand, some feel strongly that banking technology (or regulation) should not be frozen at today's levels because mobile banking is "the future of banking."¹¹ The balance between regulation and innovation is delicate, and must be tailored to the specific cultural, geopolitical, and economic needs of each community:

If law and technology are to work together to improve the basic conditions of human social existence... this presupposes a regulatory environment that supports the development, application and exploitation of technologies that will contribute to such an overarching purpose, an environment properly geared for risk management and benefit sharing.¹²

This article will explore the ramifications of this delicate dance for Jamaica. Do the potential benefits of digital finance outweigh the potential costs? Can Jamaica safely adopt a comprehensive mobile financial system that provides greater financial inclusion throughout the country?

Neither the developed nor the emerging world has successfully addressed the problem of income inequality.¹³ Despite governmental and non-governmental interventions, the gap between those living at the top of the economic pyramid and those at the bottom is still growing.¹⁴ Yet, in our current digital age, technology is trumpeted as a source of endless opportunity for the poor.

For those who are committed to international development and social justice, technological innovations appear to present the best hope for eradicating some of the worst ills of poverty, including hunger, disease, and lack of access to education. The

11 Lloyd Gedeye, *Cellphone Banking Needs Laws*, MAIL & GUARDIAN (Dec. 7, 2012), <https://mg.co.za/article/2012-12-07-cellphone-banking-needs-laws>.

12 Roger Brownswood & Morag Goodwin, *LAW AND THE TECHNOLOGIES OF THE TWENTY-FIRST CENTURY* 46 (Cambridge Univ. Press 2012).

13 Anthony Reuben, *Gap Between Rich and Poor Keeps Growing*, BBC NEWS (May 21, 2015), <http://www.bbc.com/news/business-32824770> ("The gap between the rich and the poor keeps widening, the Organisation for Economic Cooperation and Development (OECD) says. In its 34-member states, the richest 10% of the population earns 9.6 times the income of the poorest 10%. There is no standard measure of inequality, but most indicators suggest it slowed or fell during the financial crisis and is now growing again."). See also UN Development Programme Bureau for Development, *Humanity Divided: Confronting Inequality in Developing Countries* 16 (Nov. 2013), http://www.undp.org/content/dam/undp/library/Poverty%20Reduction/Inclusive%20development/Humanity%20Divided/HumanityDivided_Full-Report.pdf ("Over the last two decades, income inequality has been growing on average within and across countries. As a result, a significant majority of the world's population lives in societies that are more unequal today than 20 years ago.").

14 See UN Development Programme Bureau for Development, *supra* note 13 at 16 ("In fact, the sharpest increases in income inequality have occurred in those developing countries that were especially successful in pursuing vigorous growth and managed, as a result, to graduate into higher income brackets. Economic progress in these counties have not alleviated disparities, but rather exacerbated them.")

Netherlands is using technology to combat hunger in the emerging world through a program that uses satellite data to improve food security.¹⁵ Low-cost, yet highly effective mosquito nets are being produced in large quantities to protect poor children from malaria throughout Africa and Latin America.¹⁶ Stanford MBA students created solar-powered lamps (to replace more dangerous kerosene lamps) for the poor.¹⁷ Others are providing low-cost laptops to poor rural children in Africa, Asia and Latin America.¹⁸ Unique development strategies are being utilized all over the world to target developing countries where help is most needed.

Much like the beginnings of the Industrial Revolution in the United States and in Europe, the Digital Revolution promises great change, especially for those traditionally located at the bottom of the economic pyramid.¹⁹ What does the Digital Revolution look like? In Indonesia, rural farmers use their mobile phones to access “information about fertilisers, pesticides and the prices of crops” via text message.²⁰ Specifically, the technology startup, “8villages,” gave 900 farmers the opportunity to test a business social networking service by entering a code on their mobile phones that allowed them to access product reviews written by senior farmers.²¹ As almost fifty percent of Indonesia’s 230 million people live off the land, the use of mobile

15 G4AW, or the Geodata for Agriculture and Water Program, provides small scale farmers with agricultural advice on climate and weather-related information with the ultimate goal of combating food shortages; the program provides increased mobile connectivity and satellites to connect businesses to growers to accomplish this goal. G4AW has initiated “17 projects involving 80 organizations throughout 10 different countries.” See Kristan Westad, *Netherlands Aims to Fight Hunger in Developing Countries*, THE BORGEN PROJECT (Dec. 9, 2016), <https://borgenproject.org/fight-hunger>.

16 See Jeffrey Gettleman, *Meant to Keep Malaria Out, Mosquito Nets are Used to Haul Fish in*, NY TIMES (Jan. 24, 2015), <https://www.nytimes.com/2015/01/25/world/africa/mosquito-nets-for-malaria-spawn-new-epidemic-overfishing.html> (“Western governments and foundations donate the money. Big companies like BASF, Bayer and Sumitomo Chemical design the nets. They are manufactured at about \$3 apiece, many in China and Vietnam, shipped in steel containers to Africa, trucked to villages by aid agencies, and handed out by local ministries of health, usually gratis. The World Health Organization says the nets are a primary reason malaria death rates in Africa have been cut in half since 2000.”).

17 Marc Gunther, *D.light: Solar Power for the Poor*, MARC GUNTHER (Mar. 3, 2013), <http://www.marcgunther.com/d-light-solar-power-for-the-poor>.

18 The MIT-originated “One Laptop per Child” Initiative aims to provide “rugged, low cost, low power, and connected laptops to disadvantaged students around the world.” See Steven Livingston, *Classroom Technologies Narrow Education Gap in Developing Countries*, BROOKINGS INSTITUTE (Aug. 23, 2016), <https://www.brookings.edu/blog/techtank/2016/08/23/classroom-technologies-narrow-education-gap-in-developing-countries>. See also Hannah Clark, *The \$100 Computer*, FORBES (Jan. 27, 2007), http://www.forbes.com/2007/01/27/cheap-computers-poor-lead-citizen-cx_hc_davos07_0127laptop.html.

19 See generally C.K. Prahalad, *THE FORTUNE AT THE BOTTOM OF THE PYRAMID: ERADICATING POVERTY THROUGH PROFITS* (2006).

20 Karishma Vaswani, *Indonesian Farmers Reaping Social Media Rewards*, BBC NEWS (June 5, 2012), <http://www.bbc.com/news/business-18193993>.

21 *Id.*

phones in this regard should have a measurable impact on economic growth. Several studies have borne out this supposition: “[D]oubling of mobile data use leads to an increase of 0.5 percentage points in the GDP per capita growth rate across selected 14 countries.²² Countries with higher level of data usage per 3G connections have seen increases in GDP per capita growth exceeding a percentage point.”²³

While these results are clear in developed countries, the studies show positive increases in developing countries as well: “In developing markets, a 10% expansion in mobile penetration increases productivity by 4.2 percentage points.”²⁴ Additionally, in 2011, Nokia tested a service called “Life Tools” that allowed 600,000 Indonesian farmers with a Nokia handset to “get a text message about crop prices and weather patterns” at a cost of “about five U.S. cents per day.”²⁵ Mobile farming and mobile fisheries in Kerala, India, have both “been associated with increases in fisherman’s profits of 8%. . .”²⁶ These examples of technological innovation hold great promise for increasing the . . . economic outlook for these farmers, their families, and for their country.

In Jamaica, as in many parts of the emerging world, the mobile phone has increased the ability of people to communicate and support their families remotely. A “mobile financial system” contemplates a comprehensive approach to the delivery of financial products and services that allows mobile phone subscribers to access financial services without the necessity of a bank account as a precondition.²⁷ Furthermore, there are several country-based examples of attempts to adopt mobile financial architecture that allow non-bank bank participants alike to access finance, including providing subscribers with the ability to make deposits, deposit savings, transfer money, withdraw cash, pay utility bills, purchase goods in retail outlets, and

22 Maria Obiols, *Countries with Highest GDP Growth in 2017*, GLOBAL FINANCE (Sept. 30, 2017), <https://www.gfmag.com/global-data/economic-data/countries-highest-gdp-growth-2017> (“The Gross Domestic Product of a country can be defined as the total monetary value of the goods and services produced within its borders in a year.”).

23 Already, studies indicate that mobile data impacts the growth of a country’s gross domestic product (GDP): “The mobile telecommunications sector continues to offer unprecedented opportunities for economic growth in both developed and developing markets, and mobile services have become an essential part of how economies work and function A series of studies have found a link between mobile penetration and economic growth. Mobile phones have improved communication, social inclusion, economic activity and productivity in sectors such as agriculture, health, education and finance.” See DELOITTE, *WHAT IS THE IMPACT OF MOBILE TELEPHONY ON ECONOMIC GROWTH?* 1-3 (2012), <https://www.gsma.com/publicpolicy/wp-content/uploads/2012/11/gsma-deloitte-impact-mobile-telephony-economic-growth.pdf>.

24 *Id.* at 2.

25 Vaswani, *supra* note 20.

26 DAWN RICHARDS ELLIOTT, *EXPLORING THE ECONOMIC POTENTIAL OF A MOBILE FINANCIAL SYSTEM IN JAMAICA* 24 (2011), http://pdf.usaid.gov/pdf_docs/PA00K9JV.pdf.

27 *Id.* at 3.

receive employment or health benefits from government agencies—all via basic handsets and SMS or text message-based platforms.²⁸

Adopting a comprehensive mobile financial system in Jamaica may: (1) supplement existing banking models; (2) increase the likelihood that more people will be able to access finance no matter where they live; (3) decrease income inequality; and (4) spur economic growth.

Encouraging innovation by implementing mobile financial systems is a wholesale game changer because a MFS potentially removes the traditional bank monopoly on providing financial products and services. As is discussed below, wittingly or unwittingly, banks often serve as major barriers to entry when it comes to the ability of the poor to access financial products and services. However, financial consumers no longer need to travel to urban centers or rely on traditional banking infrastructure to access such products and services. High mobile phone subscription rates are spurring the delivery of needed banking, healthcare, education and financial products and services in radically new ways.

What kinds of regulation will work best to help fledgling mobile money services grow while still maintaining stability in financial markets? What has been the result thus far of attempts to adopt mobile financial systems that provide services and products that go beyond person-to-person remittance transfers?²⁹

Part I of this Article will address the problem of poverty, income inequality and the need for greater financial inclusion in Jamaica. Part II will discuss the benefits that emerging technologies such as digital finance can bring to developing economies. Part III will address the possibilities for regulation that benefits, without stifling, innovation. Part IV will propose a new mandate for Jamaica, further areas for study, and some concluding thoughts on how a mobile financial system could be implemented in Jamaica in a way that respects the uniqueness of the island while still providing financial access for a much broader swath of Jamaicans. The Jamaican government has an opportunity to harness technological innovation to lead the country forward and to show the world, once again in the post-colonial era, that it is not afraid to step out and embrace change.³⁰

28 People also use funds in mobile money accounts to “top up” their airtime minutes on their phones, to send and receive money between family members in “geographically separate regions” within a country (domestic remittances) or to complete other basic financial services like lending or acquiring insurance. David S. Evans & Alexis Pirchio, *An Empirical Examination of Why Mobile Money Schemes Ignite in Some Developing countries but Flounder in Most* 20 (Chi. Coase-Sandor Inst. for Law and Econ., Working Paper No. 723, 2015), https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=2413&context=law_and_economics.

29 Remittance transfers, where migrants work to wire money back to their families in their countries of origin, is a common use of mobile phones.

30 It is worth noting that the Jamaican government has already shown itself ready to embrace economic development and financial inclusion: it adopted a “Mobile Money for Microfinance” pilot under the auspices of the Development Bank of Jamaica through a collaboration with Transcel Limited, a technology company. One of the goals of the

Part I

A. Poverty, a Dirty Word

*For all the promises of prosperity and social justice, thousands of country folk continued to drift hard-broke into Kingston in search of non-existent jobs. The island's class and racial divides remained stubbornly in place. The problem of the colour-line continues to haunt Jamaica.*³¹

*"Charity begins at home, and justice begins next door."*³²

No one likes to talk about poverty. In the United States, the issue often falls to the bottom of political platforms (if it manages to make an appearance at all).³³ Yet the United States, the so-called leader of the free world, maintains a level of poverty that should be untenable in a country of such wealth: 50 million Americans (one in six) currently live below the poverty line, and 20 percent of the nation's children are poor.³⁴ In the European Union, "nearly 1 in 7 people are at risk of poverty."³⁵ In the United

program was to "give the unbanked and the under-banked greater access to financial services." The Bank of Jamaica voiced its "non-objection" to the pilot program in December 2012. See Lena Phillips, DEVELOPMENT BANK OF JAMAICA TO LAUNCH MOBILE MONEY PILOT PROJECT IN PARTNERSHIP WITH TRANSCEL, ALARIC, NATIONAL COMMERCIAL BANK, MICROCAPITAL (Mar. 7, 2013), <https://www.microcapital.org/microcapital-brief-development-bank-of-jamaica-to-launch-mobile-money-pilot-project-in-partnership-with-transcel-alaric-national-commercial-bank/>.

31 Ian Thomson, *THE DEAD YARD: A STORY OF MODERN JAMAICA* 5 (2009).

32 Charles Dickens, *MARTIN CHUZZLEWIT* 462 (1844).

33 See The Editorial Board, *The Failure to Talk Frankly About Poverty*, N.Y. TIMES (Sept. 13, 2016), <https://www.nytimes.com/2016/09/14/opinion/not-yet-talking-about-the-poor.html?r=1> (arguing that in the 2016 U.S. presidential election, neither of the two candidates listed poverty on their agendas: "Poverty in the United States is deeper than in all other wealthy nations. Yet neither Hillary Clinton nor Donald Trump has a specific anti-poverty agenda.").

34 Associated Press, *U.S. Sees Highest Poverty Spike Not Seen Since the 1960s, Leaving 50 Million Americans Poor as Government Cuts Billions in Spending. . . So Does That Mean There's No Way Out?*, DAILY MAIL (Apr. 2, 2013), <http://www.dailymail.co.uk/news/article-2302997/U-S-sees-highest-poverty-spike-1960s-leaving-50-million-Americans-poor-government-cuts-billions-spending.html#ixzz2PPtEqlqs>. (noting that, in the mid-1960s, President Lyndon B. Johnson launched the "War on Poverty;" the current spike has been attributed to "government spending cuts of \$85 billion" that took effect "after feuding Democrats and Republicans failed to agree on a better plan for addressing the national deficit.").

35 The European Anti-Poverty Network, *Poverty and Inequality in the European Union*, POVERTY SITE (Sept. 30, 2017), <http://www.poverty.org.uk/summary/eapn.shtml>.

Kingdom, 16.8 percent of the population live in poverty,³⁶ and one in four children live below the poverty line.³⁷ And this is the “developed” world.³⁸

But what does it mean to be poor? The metric set by the United Nations says that “poor” applies to people who living on less than a dollar a day: 1.2 billion live on less than a dollar a day, while approximately 2.8 of the 6 billion people in the world live on less than \$2 a day.³⁹

At its most basic level, poverty means that people cannot feed their families, that they are unemployed, or cannot find a consistent way of supporting themselves, or that they are without adequate shelter. Although they may long for long-term stability and living that is beyond subsistence or day-to-day survival, they cannot plan for, or ensure their financial future: there is no retirement fund, and they cannot purchase short or long-term insurance, including for example, disability or life insurance that may be necessary in the event of “rainy days.” They must scramble to adjust to life’s vicissitudes as they come. When there are unexpected illnesses or deaths, they must scrape to try to come up with the money to pay hospital bills or bury their dead. They may call on friends and relatives and beg for assistance. Sometimes, if someone has a large extended family, family members may be able to help. But they are often in dire financial straits as well, and although they are stretching to help, one must in turn, reach to help them when their time of need comes. This reality ensures that any accumulated savings will in time disappear.

Any savings may also be wiped out in case of natural disaster, including drought, hurricanes, fire and flood.⁴⁰ People are also more vulnerable to man-made disasters, including rampant crime,⁴¹ or corruption (if stopped by a police officer for a moving

36 See *Persistent Poverty in the UK and EU: 2014*, OFF. FOR NAT’L STAT. (May 16, 2016), <https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/articles/persistentpovertyintheukandeu/2014>.

37 *Poverty in Britain*, ROYAL GEOGRAPHICAL SOC’Y, <https://21stcenturychallenges.org/poverty-in-britain/> (last visited Sept. 30, 2017).

38 See *World Factbook*, CENT. INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook/appendix/appendix-b.html#D> (last visited Sept. 30, 2017) (demonstrating that the current list of developed countries include: Andorra, Australia, Austria, Belgium, Bermuda, Canada, Denmark, Faroe Islands, Finland, France, Germany, Greece, Holy See, Iceland, Ireland, Israel, Italy, Japan, Liechtenstein, Luxembourg, Malta, Monaco, Netherlands, NZ, Norway, Portugal, San Marino, South Africa, Spain, Sweden, Switzerland, Turkey, UK, US).

39 WORLD BANK, *WORLD DEVELOPMENT REPORT 2000/2001: ATTACKING POVERTY* (Oxford Univ. Press 3d ed., 2001).

40 Eleanor Krause & Richard V. Reeves, *Hurricanes Hit the Poor the Hardest*, BROOKINGS INSTITUTION (Sept. 18, 2017), <https://www.brookings.edu/blog/social-mobility-memos/2017/09/18/hurricanes-hit-the-poor-the-hardest/>.

41 ANTHONY D. HARRIOTT & MARLYN JONES, *CRIME AND VIOLENCE IN JAMAICA: IDB SERIES ON CRIME AND VIOLENCE IN THE CARIBBEAN* 53 (June 2016), <https://publications.iadb.org/bitstream/handle/11319/7773/Crime-and-Violence-in-Jamaica-IDB-Series-on-Crime-and-Violence-in-the-Caribbean.pdf?sequence=4> (“Gangs and organized crime are major engines of violence in Jamaica, particularly homicides. Organized crime is a prime source of corruption in the state and polity.”).

violation, whether innocent or guilty, their choice is either pay a fine that they know that they cannot afford, or a hefty but still smaller bribe to save themselves further debt and an expensive trip to the courthouse), or interminable bureaucracy at every level of business life, which also saps any meager funds that they may be trying to save.

The causes of the global recession of 2008-2009 are still not well understood by the masses who most felt its impact.⁴² The recession left its charcoal fingerprint on the working poor's collective consciousness, but already the mark seems to be fading. Cornel West, a professor and elder statesman who has eschewed political office to take his message to the streets, is still shouting his poverty platform from the rooftops. In August 2011, Dr. West, along with Tavis Smiley, conducted an 18-city, 11-state "Poverty Tour" of the United States by bus.⁴³ Both men co-authored a best-selling book about poverty that is a scathing indictment of the baffling inaction by the government and apathy of the public on the issue:

Record unemployment and rampant corporate avarice, empty houses but homeless families, dwindling opportunities in an increasingly paralyzed nation— these are the realities of 21st-century America, land of the free and home of the new middle-class poor.⁴⁴

No one seems to be listening.

Similarly, the United Nations has been trying to shout its way out of the padded cell into which it has been unceremoniously placed. Forced into inaction, its hands are often tied by the five permanent members of the Security Council. Those members, China, France, Great Britain, the Russian Federation and the United States,⁴⁵ are frequently accused of stymying any chance of real reform whenever any of their domestic agendas are threatened.⁴⁶

42 ALAN S. BLINDER, *AFTER THE MUSIC STOPPED: THE FINANCIAL CRISIS, THE RESPONSE, AND THE WORLD AHEAD* (Penguin Books 2014).

43 A preview video of *The Poverty Tour* is available at: www.pbs.org/black-culture/shows/list/tavis-smiley-the-poverty-tour/.

44 TAVIS SMILEY & CORNEL WEST, *THE RICH AND THE REST OF US: A POVERTY MANIFESTO* (SmileyBooks 2012) (arguing that with 150 million Americans persistently poor or near poor, the highest numbers in over five decades, now is the time to confront the underlying conditions of systemic poverty in America before it's too late).

45 See *Current Members*, UNITED NATIONS SECURITY COUNCIL, <http://www.un.org/en/sc/members/> (last visited Jan. 28, 2018).

46 *The UN Security Council*, COUNCIL ON FOREIGN REL. (Dec. 6, 2013), <http://www.cfr.org/international-organizations-and-alliances/un-security-council/p31649> ("Other critics of the Council include advocates of R2P, who say the veto gives undue deference to the political interests of the P5, leading to inaction in the face of mass atrocities.").

Still, in September 2000, the U.N. announced policy goals aimed at eradicating poverty world-wide.⁴⁷ The Millennium Development Goals are a series of aspirational targets for helping millions of people around the world who are living below certain minimum thresholds. The goals were first announced at the Millennium Summit, “the largest gathering of world leaders in history.” They include:

- 1) Eradicate extreme hunger and poverty;
- 2) Achieve universal primary education;
- 3) Promote gender equality and empower women;
- 4) Reduce child mortality;
- 5) Improve maternal health;
- 6) Combat HIV/AIDS, malaria and other diseases;
- 7) Ensure environmental sustainability; and
- 8) Develop a global partnership for development.⁴⁸

The fact that the U.N. placed poverty, along with hunger, at the top of the list shows the significance of the issue.

The U.N.’s goal was to try to reach these targets by 2015. While there has been progress on many of the goals,⁴⁹ “around 1.5 billion people in conflict-affected countries and on the extreme margins of society were unreached by the goals and unable to benefit from the tide that lifted their neighbours.”⁵⁰

At the very least, alleviating poverty and building a future for the world’s poor need to involve multifaceted approaches that consider not just economic and policy questions, but also moral, social, and cultural issues.⁵¹ None of this can take place without the support and leadership of government leaders or the U.N. World leaders should focus on soliciting input from their most disenfranchised citizens, building a socially responsible business culture among multinational corporations (“MNCs”), and encouraging MNCs to partner with local businesses.⁵²

Nowhere is the word “poverty” dirtier than in Jamaica where many Jamaicans resent the fact that close allies like the United States and Great Britain seem to regard

⁴⁷ See *Millennium Development Goals and Beyond 2015*, UNITED NATIONS, <http://www.un.org/millenniumgoals/bkgd.shtml> (last visited Jan. 28, 2018).

⁴⁸ *Id.*

⁴⁹ *Eradicate Extreme Poverty and Hunger: Where Do We Stand???*, UNITED NATIONS DEVELOPMENT PROGRAMME, http://www.undp.org/content/undp/en/home/sdgooverview/mdg_goals/mdg1 (“The MDG target of reducing by half the proportion of people living in extreme poverty was achieved in 2010, well ahead of the 2015 deadline.”).

⁵⁰ *Were the Millennium Development Goals a Success? Yes! Sort of*, WORLD VISION INT’L (July 3, 2015) <http://www.wvi.org/united-nations-and-global-engagement/article/were-mdgs-success>.

⁵¹ Djordjija B. Petkoski, V. Kasturi Rangan & William S. Laufer, *Business and Poverty: Opening Markets to the Poor*, DEV. OUTREACH, June 2008, at 2-6.

⁵² *Id.* at 5.

the fiercely independent island nation with an equal measure of distrust and disrespect.⁵³ Yet when many foreigners think of Jamaica, they tend to romanticize it as a highly sought-after vacation destination filled with blue skies, warm breezes and endless beaches.⁵⁴ On the surface, a week-long trip to any of the Caribbean islands will undoubtedly yield beautiful vistas and warm people. However, for those who are willing to open their eyes and venture beyond the beaches, tourist zones, and the gates of their luxurious, all-inclusive resorts, it is impossible to ignore the poverty, especially in Jamaica.

The adventurous do not have to travel far to be confronted with images of once picturesque colonial downtown spaces with crumbling infrastructure, tin-roofed roadside shacks within squalor-filled shanty towns, and barely passable roads strewn with garbage and often in a state of severe disrepair.⁵⁵ What does one do with such sights? The relatively small size of the islands means that squalor and destitution are harder to avoid, even if only glimpsed by those who are on the way to the sanctuary of a gated compound.⁵⁶ A life of poverty is the reality for many people who live in developing economies, and even for those who count themselves more fortunate in supposedly developed countries as well.

Of course, there is another side of the story. The islands in the Caribbean were shaped by the colonial empires of Great Britain, France, the Netherlands, and Spain. Fifteen nations make up the Anglophone Caribbean,⁵⁷ or the Caribbean Community (“CARICOM”), including:

- Anguilla (population 14,943);
- Antigua and Barbuda (pop. 102,275);
- the Bahamas (pop. 396,355);
- Barbados (pop. 285,889);
- Belize (pop. 376,639);

53 Thomson, *supra* note 31, at 7 (“Britain is no longer such an attractive destination, not least because Jamaican nationals must now have a visa to enter. The legislation, passed by Tony Blair’s Labour government in March 2003, was intended to curb the number of Jamaicans entering the United Kingdom as drug couriers. Yet most ordinary Jamaicans come to Britain to visit family and friends; the visa requirement is deeply offensive to them.”)

54 Thomson, *supra* note 31, at 325 (quoting Noel Coward’s poem, ‘Jamaica’: “Every tourist who visits these shores can thank his benevolent Maker for taking time off from the rest of His chores to fashion the isle of Jamaica.”)

55 *Id.* at 52 (quoting James Berry, the Jamaican poet and children’s author who was speaking of the lack of discipline on the island since colonial days: “Look at the roads now, they’re like hellholes. We can’t even build a decent road! . . . Jamaica’s stagnancy sickens me—what progress have we made since independence?”).

56 *Id.* at 41 (“In Kingston, as elsewhere in the West Indies, one can pass from enclaves of immense wealth to utter desolation in a matter of seconds.”).

57 Note that two of these nations are not technically located in the Caribbean, including Belize (which is in Central America) and Guyana (South America).

- the British Virgin Islands (pop. 31,328);
- Dominica (74,022);
- Grenada (pop. 107,955);
- Guyana (pop. 778,967);
- Jamaica (pop. 2,892,427);
- St. Kitts and Nevis (pop. 55,473);
- St. Lucia (pop. 179,053);
- St. Vincent - Grenadines (pop. 109,974);
- Trinidad and Tobago (pop. 1,370,007); and
- the Turks and Caicos Islands (pop. 35,577).⁵⁸

CARICOM shares many things—English as a common language, a common enemy (hurricanes), a dwindling reliance on agriculture, and an increasing dependence on tourism and the service sector⁵⁹—but most similarities end there.⁶⁰

Despite the islands' geographic proximity, outsiders need to be wary of simplistic comparisons that fail to take account of profound differences in socioeconomic status, political outlook, and cultural realities within the region—especially when attempting to consider the economic implications of allowing in new technologies. This article focuses on the prospects for financial innovation in Jamaica, which is taking seriously both the promise and challenge of emerging technology in the mobile sphere. Within CARICOM, Jamaica is considered a moderately developed country or an “MDC;” in contrast, the Republic of Haiti is considered a less developed country (an “LDC”).⁶¹ Today, the difference is rooted more in geographic size rather than per capita income,⁶² but is still important. The distinction is likely to impact attempts to compare Jamaica's willingness to take on risk for an uncertain reward when it comes to technological innovation.

Freed from British colonial rule on August 5, 1962, Jamaica has been slowly and cautiously making its way forward since independence. Many, if not all, former

58 See *World Factbook*, *supra* note 38.

59 Today's Jamaican youth are less interested in farming and agriculture because they view it as “slave's work.” As a result, many have left the countryside to go to Kingston in search of work. See Thomson, *supra* note 31, at 156. In contrast, tourism “contributes US \$1 billion a year to the island's economy.” *Id.* at 325.

60 See Norman Girvan, *Societies at Risk: The Caribbean and Global Change* (Mgmt. of Soc. Transformations Discussion Paper Series No. 17, 1997) <http://unesdoc.unesco.org/images/0011/001107/110757Eo.pdf> (noting that CARICOM “has a sound background of cooperation in trade, external economic negotiations, education, sports, and culture.”).

61 *Poorer Caricom States Subsidizing Richer Ones*, JAMAICA OBSERVER (Sept. 26, 2012), <http://www.jamaicaobserver.com/editorial/Poorer-CARICOM-states-subsidising-richer-ones>.

62 *Id.* (pointing out that despite being one of the larger countries within the community, Jamaica's per capita income is USD\$4,750, which is much lower than smaller nations such as Antigua (per capita \$10,610) and St. Kitts (per capita \$9, 980)).

colonial territories like Jamaica share a decades-long struggle with poverty and its related ills—high illiteracy rates,⁶³ low productivity, bureaucratic inefficiency,⁶⁴ sociopolitical turmoil, corruption,⁶⁵ and crime⁶⁶—ills that are often remnants of the haphazard division or jinder of formerly separate and autonomous peoples. Jamaica has not been immune to these sociopolitical impacts. Somehow, a country of just three million inhabitants is still known for having one of the highest murder rates in the world.⁶⁷ Jamaica also has a high incidence of financial crime.⁶⁸

On the other hand, Jamaica has many positive attributes far beyond Bob Marley, reggae music, and Usain Bolt: “No other West Indian island has generated such a widespread diaspora” or “exerts [such] a disproportionate influence abroad.”⁶⁹ Jamaica has a stable economic climate and, according to the World Bank, Jamaica has a top climate for starting a business.⁷⁰ In 2017, the small island ranked 12th out of 190

63 Thomson, *supra* note 31, at 5 (“Jamaica currently has one of the highest illiteracy rates in the English-speaking West Indies. Though Jamaica has a vibrant literature of its own, reading seriously, at any age, is often associated with reading for examinations.”). *See also*, Thomson, *supra* note 31, at 30 (“Illiteracy rates in Jamaica currently stand at between 13 and 15 per cent of the population, reaching 70 percent in the Kingston ghetto: this ranks among the highest in the English-speaking Caribbean.”).

64 *Id.* at 119 (“Jamaica is a land of waiting.”).

65 *Id.* at 4 (“A system of ‘clientism’ has evolved in the years since independence, in which patron-politicians provide their client supporters with jobs, protection and a flow of money, as well as narcotics and firearms, in return for their loyalty.”).

66 *Id.* at 70 (quoting British politician, Michael Foot: “In the four decades since independence, Jamaica presents a world of ‘fear and distrust,’ where each week a new crime of ‘hideous proportions’ makes the headlines.”) *Id.* at 113 (quoting a Canadian Jesuit priest residing for years in Kingston: “Jamaicans are, anyway, much more apprehensive these days—there’s a general atmosphere of violence Jamaica has more poverty now, more marginality, unemployment and crime than it did when I arrived in the 1980s. Every house is grilled and double-grilled—and you only have to look at all of the guard dogs . . .”).

67 *Id.* at 7 (“Nearly every Jamaican knows someone who has been threatened with a gun or knife—or murdered. With an annual murder rate of around 1,500 in a population of less than three million, Jamaica is now one of the most violent countries in the world, on a level with South Africa and Columbia.”).

68 See World Bank, *Jamaica: The Road to Sustained Growth*, WTO Rep. No. 291011, at 28 (December 4, 2003), <http://documents.worldbank.org/curated/en/962971468756325065/pdf/260880JM.pdf> (“The fraud index shows an upward trend during the 1990s, during which there was a significant increase in the number of financial crimes associated with the rapid growth and inadequate regulation of the financial sector.”).

69 Thomson, *supra* note 31, at 348.

70 See Karena Bennet, *Jamaica Slips Two Ranks in 2017 Doing Business Report, But . . .*, JAMAICA OBSERVER (Oct. 25, 2016), http://www.jamaicaobserver.com/business/Jamaica-slips-two-ranks-in-2017-Doing-Business-Report-but---_78375 (“With a new methodology in operation, Jamaica has slipped two spaces to stand at 67th in the world in the prestigious Doing Business Report 2017, retaining its position as first in the Caribbean in respect of the ease of doing business. The ranking follows two consecutive years of rapid ascension for the island after it placed seven spots above its 2015 ranking to 65 in 2016. Now at 67,

countries in a ranking of best countries in which to start a business.⁷¹ Jamaica ranked 67th out of 190 countries for ease of doing business overall.⁷²

In the end, maybe poverty doesn't have to be such a dirty word. Maybe instead, it could stand for opportunity. As will be discussed in more detail below, mobile financial systems have flourished most in countries that are known for being "desperately poor." Mobile money schemes "ignite" most successfully in countries with "very poor physical infrastructure," "extremely low penetration of banking, and poor physical transport in terms of road systems and automobiles."⁷³ One thing these countries have in common is robust mobile phone activity.⁷⁴

What is the significance of the correlation between desperate poverty and mobile money success? It has been suggested that in countries where mobile financial systems have succeeded, there is on the one hand great demand for expanded financial products and services, and on the other hand, lighter governmental regulation of those products and services due to desperation for new solutions to poverty.⁷⁵ The question is, how desperate is Jamaica?⁷⁶

B. Financial Exclusion

Globally 50% of the adult population in 2010 do not own savings or loan accounts, and as a result cannot access financial services through account ownership, compared to 77%, who are mobile subscribers, the latter being achieved in less than a decade.⁷⁷

Jamaica's current ranking is still three places better than Panama at 70 – viewed as one of the fastest-growing economies in the Latin American and Caribbean region."). See also WORLD BANK GROUP, DOING BUSINESS 2016: MEASURING REGULATORY QUALITY AND EFFICIENCY (13th ed. 2016), <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB16-Full-Report.pdf> ("Besides Costa Rica, Jamaica is the only other economy in Latin America and the Caribbean that made it to the list of 10 top improvers").

71 Data on Trade & Competitiveness from *Jamaica GDP and Economic Data: Country Report 2017*, GLOBAL FINANCE (Nov. 2, 2017), <http://www.gfmag.com/global-data/country-data/jamaica-gdp-country-report/> (citing World Bank Doing Business 2017 Report).

72 *Id.*

73 Evans & Pirchio, *supra* note 28, at 19.

74 *Id.*

75 *Id.* at 19 ("On the one hand, people in the poorest countries have a much greater demand for mobile money schemes (mms) because their alternatives for sending and receiving money are so poor. On the other hand, the governments of those countries may choose to impose light regulations, and to allow non-banks to operate mms, because they are more desperate for a solution and because there is such a limited banking system to rely on in any event.").

76 See *id.* at 27 (a local Jamaican pastor remarked to the author: "Misery cause people to act desperate and kill. And idleness, Ian, it breed vice. And you see what happen when a man idle? You see when a man hungry? A man go tief! A man go kill!").

77 Elliott, *supra* note 21, at 8.

Financial exclusion is problematic because “financial access is positively correlated with poverty reduction, employment generation, assets and wealth accumulation and economic growth.”⁷⁸ Currently, “2.5 billion people globally do not have a credit report. [B]ringing unbanked consumers and businesses into the formal sector could generate \$380 billion in new revenue.”⁷⁹ The problem of financial exclusion in developing countries is acute: “90% of those who do not own financial accounts live in Africa, Asia, Latin America and the Caribbean.”⁸⁰

Someone who lacks financial access does not have sufficient capital (perhaps due to either insurmountable bureaucratic barriers or traditional banking prerequisites) and cannot access it to meet their needs: they cannot access credit to buy a house or to start a business, are ineligible to open a bank account or cannot use the bank account that they do have for more than basic services. They have no formal access to savings, and the resources of the institutionalized financial system may be beyond reach.

Someone who is unbanked has little or no access to formal systems of finance. Without a bank account, often they cannot cash a check, transfer money to others, pay bills, build for the future, or save for retirement.⁸¹ In order to do these things, they must pay cash. They pay a premium to go to a check cashing service, and they pay when they use the partner system.⁸² In other words, they pay fees and additional penalties for the privilege of being poor. In contrast, having a bank account allows people “to access financial services typically at lower opportunity costs than acquiring the same services outside of the regulated financial system.”⁸³

There has been significant progress in increasing financial inclusion in Latin America and the Caribbean in recent years as the numbers of those registering for mobile money accounts has doubled.⁸⁴ Still, in many countries, the gap between rich and poor is ever widening.⁸⁵

Jamaica is not immune. Bruce Bowen, the president of the Jamaica Bankers’ Association and the president and CEO of Scotiabank Jamaica, stated: “Over the last many decades, the gap between the have and the have-nots has been growing. Those

78 *Id.* at 14.

79 COMMUSCORE, DIGITISING TRUST, <https://www.commuscore.com> (last visited Jan. 28, 2018).

80 Elliott, *supra* note 21, at 8.

81 *Id.* at 9.

82 Claremont Kirton, UNREGULATED INVESTMENT SCHEMES (UIS) IN JAMAICA: RECENT EXPERIENCES, PROBLEMS AND PROSPECTS, 18 (2013) at 18 (“The partner is the most popular informal savings and credit arrangement in Jamaica, with origins in West Africa and long, deep-rooted traditions in the Caribbean dating back to slavery. The ‘partner’ involves a group of participants who make regular contribution to a fund, which in turn is given to each contributor over a specified time period until each member has received the fund.”).

83 Elliott, *supra* note 21, at 9.

84 CMC, *Caribbean Has Fastest Growth in Mobile Financial Services*, JAMAICA GLEANER (May 14, 2015), <http://jamaica-gleaner.com/article/business/20150514/caribbean-has-fastest-growth-mobile-financial-services>, (last visited June 1, 2015).

85 Reuben, *supra* note 13.

of us who have should be concerned because too many people are living in conditions that are unacceptable.”⁸⁶

Although most (66.36%) Jamaicans are banked and do possess bank accounts, the numbers of the “underbanked” are startling: “Only 12 percent of the population own the types of accounts which allow them to transfer money, write cheques or make credit card payments,”⁸⁷ and “77.9% - 86% of adult Jamaicans have limited access to low cost and safe payments . . . ”⁸⁸ Frankly, the situation is dire:

More than three out of every four Jamaicans have limited access to safe and low-cost payment channels . . . Jamaica has a hidden problem as the majority of the population own bank accounts but only a fraction of this group has access to full financial services, which allow them to participate easily and effectively in the economy.⁸⁹

Further, traditional banking in Jamaica is not for the faint of heart. In the United States, one can stroll into a local bank branch in the morning with identification, proof of address (often, just a driver’s license will suffice), a small deposit, and have an account opened moments later. Opening a bank account in Jamaica requires tenacity, a significant investment of time, and an iron will.⁹⁰

After making an in-person inquiry regarding the process for opening an account at First Global Bank Limited in Kingston, I was presented with three forms: a “Documentation Checklist-Personal Account,” and two blank “Character Reference and Address Verification” forms. The Documentation Checklist requires the following mandatory items to open an account:

- ✓ Source of funds (Employment Letter OR Salary Verification Letter OR Last 3 Pay Slips, Rental Agreement, etc.);
- ✓ Current & valid photo identification (Passport, Voter’s ID or Driver’s License);
- ✓ Taxpayer registration number;

86 *Rich Poor Gap a Cause for Concern*, JAMAICA GLEANER (July 15, 2013) <http://jamaica-gleaner.com/gleaner/20130715/lead/lead5.html> (citing specific “myriad challenges” such as high unemployment, high crime, “compromised” health care and “bureaucratic inefficiencies.”).

87 SFCLN, *Jamaicans Need Better Financial Access*, SOUTH FLORIDA CARIBBEAN NEWS, (Dec. 30, 2011), <https://sflcn.com/jamaicans-need-better-financial-access-dawn-elliott/>.

88 Elliott, *supra* note 26, at 2; See also Mozido, *Mozido Partners with Jamaican Cooperative Credit Union League to Bring Mobile Financial Services to the Nation’s Underbanked* (Sept. 4, 2014), <http://mozido.com/mozido-partners-jamaica> (“Nearly 70% of Jamaica’s population is underbanked.” Also, Jamaica has “an estimated two million underbanked citizens.”).

89 SFCLN, *supra* note 87.

90 This author, a Jamaican national by birth, decided that the effort required was not worth it.

- ✓ Two reference letters;⁹¹
- ✓ Verification of address;⁹² and
- ✓ Opening balances — Local Currency Savings Account: \$5,000
 - Foreign Currency Savings: 500 units of the currency (USD, GBP, EURO or CAD)
 - Local Currency Current Account: \$10,000.⁹³

Imagine the consternation of the average potential customer upon viewing this list, much less the poverty-stricken person who has spent hours traveling to the capital from the country, who might be underemployed or informally employed (and so unable to produce income verification like the “last 3 pay slips”) and who might be unable to produce the minimum amount required for opening balances, the required identification, or sufficient references.

Identity verification has been cited as the number one obstacle to extending financial services to poor populations.⁹⁴ There are several reasons for this, including:

- 1) Low income people often lack formal identity documentation;
- 2) Many low-income countries lack external, independently verified sources of data that could help identify and verify customers, such as voter registration records or credit bureaus; and
- 3) National identification cards are not universal and standardized.⁹⁵

What if one is living rent-free with family and has no proof of a “rental agreement?” It seems likely that such a person might leave the bank. Disappointed and with a sense of futility, the potential customer may decide to avoid the process altogether.⁹⁶

91 References may come from Notary Public/Justice of the Peace, long-standing customer of First Global Bank Ltd. (> 3 years), Medical Practitioner, Minister of Religion, Attorney-at-Law, Manager from First Global Bank. (This can be a call through reference by providing just the referee’s name and contact number.)

92 This usually means utility bill or bank statement in your name.

93 *Instruction Manual for Individual Accounts*, FIRST GLOBAL BANK, https://www.firstglobal-bank.com/Portals/0/downloads/Instructional_Manual_for_Individual_Accounts.pdf (last visited Jan. 28, 2018).

94 Thomas Abnell & Vangelis Tsianaxis, *AML/CFT: Balancing Regulation with Innovation* (Jan., CONSULTIVE GROUP TO ASSIST THE POOR (Jan. 23, 2015), <http://www.cgap.org/blog/amlcft-balancing-regulation-innovation/>).

95 *Id.*

96 Jamaica is in the process of rolling out a national identification system, which is intended to take effect in January 2018. See *National ID System to roll Roll Out 2018*, THE JAMAICA OBSERVER (Oct. 10, 2016), <http://www.jamaicaobserver.com/news/National-ID-system-to-roll-out-2018.>

In fairness to the bank(s), they say that they have enhanced their entry requirements due to very real security concerns. They are guarding specifically against money laundering scams that criminals have been perpetrating through established bank accounts. They are also beholden to international “Know Your Customer” (or “KYC”) standards that require banks to be familiar with the people transacting with their institutions.⁹⁷ The purpose of KYC is to prevent banks from becoming vehicles for criminal activities. As evidenced by the recent Lotto Scam (discussed in Part III), even with these requirements, criminals in Jamaica are easily able to take their sophisticated operations up-market and overseas. They managed to swindle retired and elderly homeowners in Florida and other parts of the United States into giving over significant monies.⁹⁸ Bank executives also claim that when there are more lax standards, wealthy persons can take advantage and fraudulently open accounts; they then use those fraudulent accounts to launder money outside of the country—perhaps sending their ill-gotten gains to money havens like the Cayman Islands or to untraceable Swiss accounts. One can understand how banks reasonably justify their seemingly draconian entry requirements.

In the end, and regardless of the best of intentions, Jamaica ultimately suffers, because overseas investors interested in starting businesses on the island may choose to store and use their money in financial institutions that have lower barriers to entry. The people of Jamaica also suffer because commercial banks dominate the marketplace: “In Jamaica there are more than 100 regulated financial institutions that operate in a highly concentrated market, with the commercial banks dominating as service providers.”⁹⁹ Just three banks own over eighty-five percent of the market in Jamaica.¹⁰⁰ What is the problem with a financial system in which banks predominate?

97 Pierre-Laurent Chastain, Raúl Hernandez-Coss, Kamil Borowik, and Andrew Zerman, *Integrity in Mobile Financial Services: Measures for Mitigating Risks from Money Laundering and Terrorist Financing* (World Bank Working Paper No. 36, 2008) (“Customer due diligence and KYC procedures are intended to enable a financial institution to form a reasonable belief that it knows the true identity of each customer and, with an appropriate degree of confidence, knows the types of business and transactions the customer is likely to undertake.”).

98 In the “Lotto Scam,” criminals targeted elderly residents in Florida and persuaded many to give up significant sums by telling them they had won the lotto but needed to pay up front to receive their winnings. See Talesha Reynolds and Lisa Myers, *Authorities in US, Jamaica Team Up to Tackle Persistent Phone Scam*, NBC NEWS (Mar. 13, 2013, 4:40 AM), http://investigations.nbcnews.com/_news/2013/03/13/17289607-authorities-in-us-jamaica-team-up-to-tackle-persistent-phone-scam/ (“Jamaican con artists are defrauding mostly elderly targets by selling them a bogus dream. Millions of dollars, new cars and homes won in lotteries and sweepstakes the seniors never entered. Norman Breidenbaugh, 81, of Baltimore gave over \$400,000 to lottery scammers who promised him millions in cash and a new car once he paid the taxes on the winnings. Eventually, he lost his home and every penny he had. His experience is not unique. The Federal Trade Commission reported 30,000 complaints related to Jamaican lottery scams in 2012. However, the number of actual victims is likely far higher.”).

99 Elliott, *supra* note 26, at 10.

100 RESEARCHING THE UNBANKED, PRESENTATION SHARING THE FINDINGS OF ECONOMIST DAWN ELLIOT (2011).

After all, banks are regulated by the central bank, the Bank of Jamaica (the “BOJ”), so they are safe, right? In Part III (“Beyond Legislation: History, Culture and Community”), we discuss cultural reasons why many in Jamaica do not trust banks and therefore exclude themselves from the financial system.

For now, what we can say is that banks have little incentive to potentially redesign themselves to accommodate a mobile financial system overhaul (as opposed to piecemeal adoption of mobile payments products) without outside pressure to do so; while “shareholders are content with current profitability levels, competition is limited to certain niches at the higher end of the market, and regulators do not remove obsolete restrictions that needlessly raise the cost of banking.”¹⁰¹ If you do not have a bank account, or if you do have a bank account, but do not have a checking account or access to credit through that account, there are few other banking options.¹⁰²

A society that has a significant number of people who are underserved by the financial system has a problem that is worthy of more attention. Implementing a mobile financial system would increase financial access: “By enabling the transfer of financial resources over a mobile phone, a Mobile Financial System encourages open access to financial services without the need for physical bank branches and traditional bank account ownership.”¹⁰³ If more people can participate in the financial system, the economy as a whole will benefit.

C. Entrepreneurial Hunger in Jamaica

*In a knowledge-based global economy, we must instead rely on the intellectual capital of our people, including our creativity and innovativeness, in order to make our way in this highly competitive global economy.*¹⁰⁴

Mobile finance is not just about helping the poor. It is also intended to increase economic activity among micro, small and medium-sized business owners: “[M]any entrepreneurs would like to start up their own businesses, but refrain from doing so due to the lack of credit to finance their initial or subsequent operations.”¹⁰⁵ Small business owners, entrepreneurs and the already “banked” have much to gain from

101 Ignacio Mas, *Why is the Progress of Mobile Money So Gradual and Patchy?* CONSULTIVE GROUP TO ASSIST THE POOR, (June 19, 2013) <http://cgap.org/blog/why-progress-mobile-money-so-gradual-and-patchy>. In other words, it’s a pain for them to redesign everything, especially for a payments framework that may allow people to do more for themselves (self-serve means fewer fees), and for an untested mobile money scheme that may or may not work.

102 Of course, credit unions do exist in Jamaica and as described above, may meet some part of this need.

103 Elliott, *supra* note 26, at 9.

104 Dr. Rosalea Hamilton, Caribbean Development, the CSME and Women in Politics: The Connection, Address at 5th Rose Leon Memorial Lecture, Mar. 6, 2006, at 3.

105 TOR JANSSON, RAMON ROSALES, & GLENN D. WESTLEY, PRINCIPLES AND PRACTICES FOR REGULATING AND SUPERVISING MICROFINANCE 15 (2004).

new mobile finance, especially in Jamaica where entrepreneurs hunger for increased efficiency and fewer bureaucratic barriers to wealth-generating opportunities:

[T]he economic opportunities offered by the mobile payments channel extend to all groups of people: banked and unbanked; farmers and fishermen, informal workers and formal workers; rich and poor; educated and less educated; health service providers and health service users.¹⁰⁶

Many people both in and out of Jamaica's business community believe that conditions in Jamaica are ripe for the introduction and full-scale adoption of mobile financial services. On the one hand, the business environment is one where even relatively small financial transactions are beset by inconvenience and high costs. On the other, Jamaica has a mobile phone penetration rate greater than 100 percent, and "deposit and remittance inflows" have grown by "8.76% and 5.8% respectively" over the past ten years.¹⁰⁷ Besides having a "well-established telecomm[unications] base," Jamaica also has an "extensive banking and financial infrastructure," and is consequently "well positioned to introduce and benefit from a meaningful, integrated Mobile Financial Services platform."¹⁰⁸

Female business owners also experience this entrepreneurial hunger. "Women make up 46 per cent of the Jamaican labour force, the highest per capita ratio in the world. . ." ¹⁰⁹ Women represent a seriously untapped and underdeveloped market in the Jamaican labor market.

Young business leaders are also excited about what the future may hold. Kingston BETA,¹¹⁰ a burgeoning community of "aspiring and current Jamaican/Caribbean entrepreneurs, developers, designers, tech professionals and tech enthusiasts" meets regularly to pitch new business ideas and to network.¹¹¹ The group is organized through the web-based application, Meetup.com, and its stated mission is "to promote tech entrepreneurship and innovation in Jamaica and across the Caribbean so that it

106 Elliott, *supra* note 26, at 8.

107 Winston Butler, *Getting Jamaica Ready for Mobile Financial Services*, MONA BUS. REVIEW, (Mar. 20, 2011), <http://173.203.89.141/openpublish/article/getting-jamaicans.ready-mobile-financial-services>.

108 *Id.*

109 Thomson, *supra* note 31 at 19 (in addition, "higglers," or market saleswomen known for their ferocious bargaining skills "run the peasant economy on which the Jamaican capital depends for its daily food.").

110 *About*, KINGSTON BETA, <http://kingstonbeta.com/about/> (last visited Jan. 28, 2018) (describing Kingston BETA as a bi-monthly meetup of Jamaica's tech community that "kickstarted the Jamaican Startup Movement in 2007").

111 This author attended one such meeting, held on April 25, 2013, at JAMPRO (Jamaica Investment Proportions) at 6:30 p.m. Panelists included: Wayne Jones, founder of Hybrid Tech Solutions, Kareem Sharpton, Lloyd Laing, J-Mobile and Gov. Livingstone Morrison, BOJ. The comments here reflect her first-person account of that meeting.

leads to more successful tech entrepreneurs, startups and increased job creation.”¹¹² Since their launch in 2007, Kingston BETA has “had over 80 events, 3,000 attendees and over 100 startups pitch their big ideas.”¹¹³ Their pitch events and panel discussions are often standing room only, and the buzz is palpable.

The question remains whether consistent demands for change and the urgency that is clearly felt by the young, business leaders of both genders,¹¹⁴ and the unbanked will encourage the BOJ to further liberalize its course.

Deputy Governor (“Gov.”) Livingstone Morrison, a BOJ regulator, attended a Kingston BETA meeting and participated in a panel discussion. The focus of the discussion was how regulators should bridge the gap between regulation and technology. Gov. Morrison was called to answer questions about mobile money, payment system reform, and opportunities for tech entrepreneurs.¹¹⁵ Per Gov. Morrison, the BOJ “must deliver confidence to the Jamaican people—that is their product—confidence in the banking system.” He noted that his primary concern was to determine how the BOJ could promote innovation while assuring that regulatory rules were not broken. He noted that the recent “Electronic Retail Payments Guidelines,”¹¹⁶ were meant to strike a careful balance and address such questions, and had been posted on the Bank’s website for three months already.¹¹⁷

112 Kingston BETA, *supra* note 110.

113 *Id.*

114 Dep’t of Econ. and Soc. Aff. of the U.N. Secretariat, World Survey on the Role of Women in Development, U.N. Doc. A/64/93, at 4 (2009), <http://www.unwomen.org/-/media/headquarters/media/publications/un/en/worldsurvey2009.pdf?la=en&vs=959> (“Both economic and financial resources have important implications for women’s economic roles in sustaining household livelihoods, in labour markets and in the wider economy.”).

115 Per his remarks during this meeting, the BOJ was at that very moment working on a payment system reform project with the biggest tech service provider (JamClear). *See also*, *National Payment System: JamClear-RTGS Payment Rules*, BANK OF JAMAICA, (June 2014), <http://boj.org.jm/pdf/RTGS%20Rules.pdf>.

116 *See Guidelines for Electronic Retail Payment Services*, BANK OF JAMAICA (Feb. 1, 2013), http://www.boj.org.jm/uploads/news/guidelines_for_electronic_retail_payment_services_-_1_february_2013.pdf (“The Guidelines as contained in this document are intended to foster the design, development and implementation of electronic retail payment systems and instruments which take advantage of available technology to provide more efficient payment services in a safe, secure and competitive environment. This document provides the operating parameters for providers of electronic retail payment services. All entities intending to offer electronic retail payment services in Jamaica are subject to these Guidelines and are required to apply to the Bank of Jamaica (Bank) for authorization before commencing operations.”).

117 In fact, the BOJ’s website has a comprehensive listing of the laws that “provide the legal and policy parameters for the licensing and supervision of deposit-taking financial institutions, as well as the various powers available to the BOJ and the Minister of Finance in the event that bank distress or failure appears imminent or threatens the soundness of the financial system.” One relevant statute is the Payments Clearing and Settlement Act (PCSA) of 2010. *See Legislation*, BANK OF JAMAICA, http://www.boj.org.jm/financial_sys/supervised_legislation.php. (last visited Jan. 28, 2018).

Several audience members expressed confusion and doubt about the guidelines. Many could not tell how the guidelines would apply in certain situations. Others stated that people were not going to want to wait it out, and might instead “leapfrog ahead to facilitate services that are badly in demand.” Several young business leaders expressed frustration with what they termed a “generational complex,” meaning the older generation not allowing room for new ideas. They also called out the perceived disparity between “techies” and business, a lack of mentorship, outdated patent laws, high transaction costs, lacking infrastructure, red tape,¹¹⁸ “bureaucratic paralysis,” and a “behind the times” legal framework.¹¹⁹ Despite the confusion over the guidelines and general frustration, other audience members expressed optimism about the ingenuity, talent and collaborative culture within the business community in Jamaica: “We were never taught to be entrepreneurs, but a hustling mentality inspired people to become creative and transition to business.”

During the Q&A after Gov. Morrison’s presentation, the attendees relentlessly pressed their points. As they saw it, Jamaica’s bureaucracy was hampering the growth of small businesses. Less regulation was needed, not more. Several others pressed him to explain why it was so much easier to open a bank account and do business in America? They asked what incentive young and eager entrepreneurs had to stay and do business in Jamaica when the environment was so much friendlier for business activity in Miami, New York or Silicon Valley.

That night, Lloyd Laing, an entrepreneur who develops music technology,¹²⁰ spoke eloquently and at length about the growth of Bitcoin and decentralized electronic currencies. He pointed out that cash is decreasing in significance, and suggested that the increasing relevance of electronic currencies is just one more reason to investigate and support digital finance. His comments sparked substantive interest and heavy commentary in the room. “Can you obtain money from your PayPal account in Jamaica? Also, what about mobile remittances?” (For the record, the answer appeared to be “no.”) Other comments related to the cost and inefficiency involved in attempts to wire money. “We need to speed up the process, otherwise people will find other ways to collect fees earned from providing services to clients overseas.”¹²¹ The overwhelming sentiment in the room was that financial innovation requires an acceptance of a higher degree of risk than the BOJ felt comfortable tolerating, at least for the time being.

118 One commenter asked: “Why does it take 10 days to register a company in Jamaica when it only takes 10 hours in the United States?”

119 *Per another audience comment*: “The laws on the books haven’t changed since 1857!”

120 Xavier Murphy, *A Conversation with Jamaican Entrepreneur, Lloyd Laing on the Future of Music Technology*, JAMAICANS.COM (2015), <http://jamaicans.com/jamaican-entrepreneur-lloyd-laing/> (last visited Sept. 30, 2017).

121 Truth be told, it was a fascinating discussion. When I later met individually with Gov. Morrison to discuss the event, he chuckled and said that he had certainly felt the heat, but that he “really enjoyed” the event. It seemed clear however, that his enjoyment of the passion in the room was not going to move him to change his stance on the need for regulatory caution.

The good news is that mobile money and other financial innovations are in fact already being rolled out in Jamaica.¹²² Despite having little incentive to do so, three big banks, Scotiabank, NCB, and First Caribbean, have been rolling out mobile money products.¹²³ Their actions demonstrate “unequivocally that there is a strong commercial interest in these opportunities.”¹²⁴ Jamaican credit unions are also getting involved by rolling out e-payment services (“JCUES”). The JCUES mobile wallet allows customers to pay for goods and services, and gain access to bill and loan payments as well as remittances, deposits and withdrawals. The Jamaican Cooperative Credit Union League expected 50,000 users by the end of 2014.¹²⁵ The BOJ has fully supported the rollout of the JCUES mobile wallet pilot program.¹²⁶

The platform is cloud-based and interoperable, which means that it can work with any wireless carrier or mobile device, “interchanges easily with products from other vendors,” and “serves people around the world who choose to manage their money using their mobile phone rather than relying on traditional financial institutions.¹²⁷ Better still, this mobile wallet not only promises value to customers, but to merchants as well because it provides merchants “from an independent coffee stand or corner convenience store to a supermarket” to better reach their consumers and inspire loyalty.¹²⁸

Part II

A. Tech Innovation in the Emerging World

*A Mobile Financial System leads to greater economic transparency, lower transaction costs, employment and small business opportunities and increases in GDP.*¹²⁹

Cases abound in which developing countries have used mobile phones to deliver essential products and services, as is discussed in detail below. Approximately 77% of the world’s population, or 5.3 out of 6.8 billion people, are mobile subscribers; 109 million mobile subscribers currently use their phones to make payments and

122 *The Importance of Financial Sector Regulation*, 6 FIN. SERV. COMPASS 1, 1-3 (2013).

123 It is the position in this paper that any approach to digital finance should be comprehensive rather than piece-meal.

124 Edwards, *supra* note 150.

125 Mozido, *supra* note 88.

126 *Id.* (“After a one-year initial phase, the Bank of Jamaica has approved phase two pilot of JCUES, now allowing any Jamaican to sign up, add money, and pay for goods and services without the need for a bank account.”)

127 *Id.*

128 *Id.*

129 Elliott, *supra* note 31, at 8.

remittances.¹³⁰ Innovations in digital finance have the potential to do what the financial sector has so far proved itself unable to do— to reach millions of people around the world who still do not have low-cost access to financial products and services.¹³¹

Where successfully implemented, mobile financial systems allow for the delivery of a wide spectrum of products and services. Although comprehensive data on the success or failure of mobile money schemes is scarce, and “there is no centralized source of data that tracks mobile money transactions across countries and over time,”¹³² this section will examine recent and well-documented cases of both successful and less successful use of mobile financial systems to date.

What should be the measure of “success” regarding digital finance and mobile financial systems? Most would likely agree that any increase to a country’s gross domestic product (“GDP”) would be a good thing. As it happens, there is some evidence of impact on GDP from mobile phone usage:

The preponderance of evidence shows that mobile phones directly contribute to significant GDP growth in all countries and produce the most growth in poor countries with previously low levels of phone penetration.¹³³

Specifically, it has been shown that “adding ten phones per 100 people adds 0.6 percent to the GDP.”¹³⁴ The spread of mobile phones in developing countries creates wealth for those living in rural areas and increases national income as well.¹³⁵

One study examined twenty-two countries where mobile financial systems were used with varying levels of success. It assigned the countries in four categories according to whether the MFS: (1) successfully “ignited with explosive growth;” (2) had “weak ignition;” (3) “failed to ignite;” or (4) where it was “too soon to assess.”¹³⁶ First, we will begin with the successes.

130 Elliott, *supra* note 31, at 7 (Currently “Asians [are] dominating the share of mobile payments users—63 of 109 million.”).

131 *Id.* at 19.

132 Evans & Pirchio, *supra* note 28, at 6.

133 See Lumsden, *supra* note 6 (citing Sullivan, at 149).

134 *Id.* at 35 (citing research from the London Business School. Sullivan further states that according to the U.N., one percent of GDP growth results in a two percent reduction in poverty).

135 *Id.* at 145 (“[A]s new information technology rampages through the South, it is creating wealth and producing millions of new income opportunities in rural areas that translate into billions of dollars in a new national income”). See also Bethany Brown, *Mobile Phones: Reshaping the Flow of Urban-to-Rural Remittances*, 11 SUSTAINABLE DEV. L. & POL’Y 50, 50 (“Mobile money transfers from person to person via mobile phones stand ready to revolutionize traditional remittance models, allowing a greater percentage of urban laborers’ earnings to be remitted to rural recipients.”).

136 Evans & Pirchio, *supra* note 28, at 4.

B. Countries with Explosive Growth of Mobile Money

The study listed eight countries that launched extremely successful mobile financial systems:

- 1) Bangladesh (population 165,099,845);
- 2) Cote D'Ivoire (pop. 24,448,657);
- 3) Kenya (pop. 50,014,913);
- 4) Rwanda (pop. 12,282,167);
- 5) Somaliland (pop. 3,500,000);¹³⁷
- 6) Tanzania (pop. 57,757,624);
- 7) Uganda (pop. 43,216,412); and
- 8) Zimbabwe (pop. 16,626,505).¹³⁸

Here, we will focus on the most famous of the eight—the launch of M-PESA (M is for mobile, Pesa means payment in the Swahili language) in Kenya.¹³⁹ Just three years after its launch, 9.5 million users had signed up.¹⁴⁰ More than 12 million Kenyans use the service, and an additional six million utilize competing mobile products.¹⁴¹ It has been suggested that Kenya's light regulatory model and strategy of coordinating with its existing banks was the reason for this success:

137 John Ford, *You Think You Know Somalia? Meet Somaliland*, MIC (Nov. 25, 2012), <https://mic.com/articles/18992/you-think-you-know-somalia-meet-somaliland#.GkdVGSg6J>. See also *Somaliland Profile*, BBC NEWS (May 26, 2016), <http://www.bbc.com/news/world-africa-14115069>.

138 Evans & Pirchio, *supra* note 28, at 4. Live population statistics acquired from Worldometers are included for the purposes of comparing scalability in these regions to Jamaica and the other member nations of CARICOM. Added together, the total population within CARICOM is 6,810,884. *Uganda Population*, WORLDOMETERS, <http://www.worldometers.info/world-population/uganda-population> (last visited Sept. 30, 2017).

139 See *M-Pesa*, INVESTOPEDIA, <https://www.investopedia.com/terms/m/mpesa.asp/> (last visited Jan. 28, 2018) (defining M-Pesa as “[a] mobile banking service that allows users to store and transfer money through their mobile phones. M-Pesa was originally introduced in Kenya as an alternative way for the unbanked population of the country to have access to financial services. Safaricom, the largest mobile phone operator in Kenya as of 2016, launched M-Pesa in 2007”).

140 Gedeye, *supra* note 11.

141 *Id.* at 11. See also Claudia McKay and Rafe Mazer, *10 Myths about M-Pesa: 2014 Update*, CONSULTATIVE GROUP TO ASSIST THE POOR (Oct. 1, 2014), <http://www.cgap.org/blog/10-myths-about-m-pesa-2014-update/> (“More than half the adult population now uses M-PESA, which has contributed to a dramatic increase in the percentage of adults with access to formal financial services since 2009, when just 41% of adults had access. Now, this figure is at 67%.”).

All but one of the countries in which ignition with explosive growth have occurred have followed the “go light regulatory model” pioneered in Kenya . . . In all cases the leading mobile money schemes in these countries are operated by MNOs [multinational organizations], sometimes in close partnership with the banks.¹⁴²

The major benefit of implementing an MFS is that such a system lowers direct and indirect costs of conducting financial transactions. Higher costs are associated with traditional banking architecture, in which certain privileges and services are tied to having an account.¹⁴³

Opportunity costs might include the costs of transportation, including the cost of getting to the physical bank location from wherever you live, time spent lining up, waiting to be helped, and security. In addition, there are costs that are associated with having access to check-writing privileges (again, as mentioned above, only 12% of banked Jamaicans have such access), having to make a payment in person, or a physical visit to a branch or ATM to withdraw money. There are also costs associated with making domestic remittances.¹⁴⁴ Lowering these costs means more financial access for greater numbers of people.

In other words, digital finance is cheaper! That is, it is cheaper for everyone, save traditional banks: “. . . sixteen countries that offer it, mobile banking is on average 19% cheaper compared to traditional banking and 54% cheaper than accessing financial services through informal channels except in “countries like India whose governments have made low-cost banking and financial inclusion a national priority.”¹⁴⁵

Another interesting lesson from Kenya is that Kenyans also use M-PESA to save, and not just for remittances.¹⁴⁶ In Part III, we will discuss the unique historical, social, and cultural issues in Jamaica that may make adopting Kenya’s approach to savings difficult to accomplish. Still, the Kenyan model points to a way forward on how to use MFS for wealth creation rather than just wealth redistribution in countries that are open to seizing the opportunity.

C. Countries that Failed to Ignite, Where It Is Too Soon to Tell, or with Weak Growth

Three countries experienced weak growth after launching mobile financial systems:

- 1) Ghana;
- 2) The Philippines; and

142 Evans & Pirchio, *supra* note 28, at 21.

143 Elliott, *supra* note 26, at 22.

144 *Id.*

145 *Id.* (emphasis added).

146 *Id.* at 20.

3) Pakistan.

Eight countries launched mobile financial systems that failed to take off:

- 1) Burkina Faso;
- 2) Haiti;
- 3) India;
- 4) Indonesia;
- 5) Madagascar;
- 6) Mexico;
- 7) Nigeria; and
- 8) South Africa.

The eight countries in which mobile money failed to ignite were all countries that adopted a heavy-handed approach to regulation. Seven of the eight required banks to take the lead in overseeing emerging mobile technology.

They required that banks take the lead role in operating the mobile money scheme and conversely prohibited mobile network operators from doing so. They then typically imposed other heavy burdens including stringent KYC requirements and restrictions on who could operate as an agent.¹⁴⁷

In Haiti, mobile money was ushered in with great fanfare. Following the devastating 2010 earthquake that destroyed almost all the major infrastructure in the country and shuttered the country's banks,¹⁴⁸ the Bill and Melinda Gates Foundation established a \$10 million fund to create a mobile financial system.¹⁴⁹ The Governor of the Central Bank of Haiti, Charles Castel, welcomed the introduction of mobile financial services. He believed that such services would especially benefit the displaced because they would not have to resort to a "brick and mortar edifice."¹⁵⁰

147 Evans & Pirchio, *supra* note 28, at 4.

148 During the quake, the building housing Citibank in Port-au-Prince collapsed, the offices of the World Bank, along with the "central political and economic core of the country" were destroyed. See Mary Beth Sheridan, *Haiti Earthquake Damage Estimated Up to \$14 billion*, WASH. POST (Feb. 17, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2010/02/16/AR2010021605745.html>.

149 *Bill Gates Offers \$10m fund for mobile banking in Haiti*, BBC NEWS TECH. (June 9, 2010), <http://www.bbc.com/news/10273158>.

150 Al Edwards, *Drumbeat Grows for Mobile Banking in the Caribbean*, JAMAICAN OBSERVER (Feb. 11, 2011), <http://www.jamaicanobserver.com/pfuersion/drumbeat-grows-for-mob>.

Proceeding with caution, Haiti adopted a bank-based model, in which banks were responsible “for all deposits and all compliance measures” regarding fraud and money laundering.¹⁵¹ Said Castel: “We put the entire responsibility on the banks, but we as the Central Bank regulate and supervise the banks to ensure that they abide by all laws and regulations concerning the matter.”¹⁵² Haiti apparently chose the bank-led model because Mexico, which had a similarly large remittance business, and other countries had done so already.¹⁵³ As a result, Haiti did not have to reinvent the wheel.¹⁵⁴

Unfortunately, despite promising early sign-ups, the number of active users of the mobile system in Haiti has been underwhelming. It is possible that Haiti’s mobile money failed to accumulate users due to this bank-based structure. In contrast, in Kenya, which has seen excellent results, a widespread network of non-bank agents are authorized to conduct transactions.¹⁵⁵

It is also likely that Haiti’s mobile money system failed due to issues with scalability in a small country. In contrast, Kenya’s population of 50 million is approximately five times the size of Haiti.¹⁵⁶ The size factor likely contributed to Kenya’s success in digital finance because of greater need and the more people using the system.

In South Africa, mobile money looked similarly promising at the start: one million users signed up shortly after its initial launch, and even users with the most basic handsets could utilize mobile financial services due to the widespread distribution of their agent network.¹⁵⁷ South Africa’s telecom company, MTN, had a mobile money account that was available to customers free of charge (unless customers want to use other cellphone networks). MTN’s system “allow[ed] customers to make payments, transfer funds between users, pay for groceries, buy prepaid electricity and airtime, and withdraw cash from the stores—all from their cell phones.”¹⁵⁸ But only a small percentage of MTN’s customers were active users of the services. While there could be

151 *Id.*

152 *Id.*

153 *Id.*

154 *Id.*

155 Note that Haiti does allow agents. Haiti partnered with major telecommunications company, Digicel, to introduce a mobile wallet. Scotiabank then outsources (mobile) services to “super agents” who charge the accounts for the mobile wallets. The account on a phone acts like a wallet. An agent opens the account for you, provided you can provide a piece of identification and a minimum of 100 gourdes. Once the account is set up, you can begin: you can also top up your account and transfer funds to and from someone who has a Tcho Tcho mobile account. *See id.*

156 *Kenya Population*, WORLDOMETERS, <http://www.worldometers.info/world-population/kenya-population/> (last visited Nov. 7, 2017).

157 Gedeye, *supra* note 11.

158 *Id.* Notably, MTN has recently (2016) given up on its mobile money services in South Africa “due to a lack of commercial viability.” *See also* Lynsey Chutel, *MTN is giving up on mobile money in South Africa*, QUARTZ (Sep. 16, 2016), <https://qz.com/783230/mtn-has-cancelled-its-mobile-money-service-in-south-africa-but-will-continue-to-move-into-financial-services-in-africa/>.

many reasons for this, the most consequential may be South Africa's very strict banking regulations, including those specifically tied to mobile services.

Finally, two countries in the study launched mobile money schemes that could not yet be evaluated. The authors determined that it was too soon to draw any meaningful conclusions for these two countries:

- 1) Democratic Republic of the Congo; and
- 2) Sri Lanka.

It will be interesting to track the progress of digital finance in these and other countries in the future. Although conclusions cannot be made yet about the overall success of digital finance, some lessons can be drawn from the initial results thus far: digital finance does not have to replace existing banking systems, but it does need sufficient room to breathe.

Part III

A. Scandals and Financial Crime

Banks and the BOJ have good reason to approach financial deregulation with caution. The 1990s Financial Sector crisis in Jamaica cost the country 40% of its GDP.¹⁵⁹ Fraud and financial crimes are not unique to Jamaica, but they do pose unique risks to countries with emerging economies. Any fraud in the mobile financial sector may only make any existing issues regarding consumer trust and confidence in financial institutions worse.¹⁶⁰ In 1992, Bernie Madoff created a major Ponzi scheme that left many Americans reeling when it collapsed in 2008.¹⁶¹ The scandal also led to the creation of more regulation in the financial sector, including the "Dodd-Frank" Wall Street Reform and Consumer Protection Act,¹⁶² and increased calls for greater transparency and accountability in the financial services industry.¹⁶³ Similarly, starting

159 *The Importance of Financial Sector Regulation*, *supra* note 122.

160 Chastain, *supra* note 97, at 37-38 ("Regulators and policymakers are tasked with ensuring that [Mobile Financial Services] is safe from abuse in order to facilitate acceptance by the general public. For the industry, robust internal surveillance mechanisms are critical to protecting their business and reputation, and to building confidence among customers.").

161 Kirton, *supra* note 82, at 9.

162 Some say the Madoff scandal also contributed to the financial crisis. See *25 People to Blame for the Financial Crisis: The Good Intentions, Bad Managers, and Greed Behind the Meltdown*, TIME, http://content.time.com/time/specials/packages/article/0,28804,1877351_1877350_1877337,00.html (last visited Sept. 30, 2017).

163 Terry Flanagan, *Demand for Change Post-Madoff*, MARKETS MEDIA (Mar. 6, 2013), <https://marketsmedia.com/demand-for-change-post-madoff> ("The goal [of Dodd-Frank]

in the 1990s, Jamaica was beset by a series of pyramid and Ponzi schemes that astonished, not only Jamaicans, but the world with their audacity. Eight major pyramid schemes started in 2000 in Jamaica and collapsed in 2001.¹⁶⁴

Many Jamaicans were misled by the use of the word, “partner” (as described in more detail below) in the name of the Ponzi schemes.¹⁶⁵ This was a deliberate attempt by the schemes to encourage Jamaicans long familiar with partners to put their full trust in these new ventures.¹⁶⁶ The large sums of money lost by Jamaicans affected both the rich and the poor, and the notoriety generated by these scandals left many Jamaicans even more cautious about new schemes.¹⁶⁷

In 2006 and beyond, at least four more financial scandals occurred— the names for which virtually all Jamaicans are familiar: (1) OLINT; (2) Cash Plus; (3) Worldwise Limited; and (4) Swiss Cash.¹⁶⁸ Of the four, two—OLINT and Swiss Cash—especially tested the risk tolerance of many Jamaicans. (Another one, the “Lotto Scam” affected more Americans than Jamaicans, but it still stirred an immediate response by the Government of Jamaica.)¹⁶⁹

OLINT stands for Overseas Locket International Corporation, which originally registered in Panama but had subsidiaries located throughout the Caribbean. OLINT Jamaica was founded in 2004; in July 2008, founder David Smith was arrested for theft, false accounting and a host of other charges, including breach of Section 26 of the Securities Act.¹⁷⁰ Swiss Cash (also known as Swiss Mutual Fund) was started in 1948 in the Commonwealth of Dominica and was originally intended for Dominican citizens. Although the company never opened a physical office in Jamaica, and the Financial Services Commission (“FSC”) warned Jamaicans that the scheme was illegitimate, Jamaicans nevertheless deposited vast sums using the organization’s website. Eventually, the website disappeared, along with the customers’ money and the organization itself.¹⁷¹

Typically, these crimes were either unregulated investment schemes that attracted customers “by offering unusually higher than market interest rates as short term

is to increase transparency in the financial system and hold those accountable who do not abide.”).

164 Kirton, *supra* note 82, at 21.

165 *Id.* at 18 for description of the partner system.

166 *Id.* at 19.

167 *Id.* at 16.

168 *Id.*

169 Per Maxine Jackson, Jamaica’s then Deputy Director of Public Prosecutions, Financial Investigations Division, earlier legislation, including the Mutual Legal Assistance Criminal Matters Act (1995) was already in place, but the Proceeds of Crime Act (“POCA”) (2007) was enacted almost immediately after the Lotto Scam came to light [in-person interview]. Interview with Maxine Jackson, previous Deputy Director of Public Prosecutions in Jamaica (Apr. 27, 2013).

170 Kirton, *supra* note 82, at 28.

171 Kirton, *supra* note 82, at 31.

returns,"¹⁷² or they reeled trusting Jamaicans who possibly saw them as the only escape from desperate circumstances. In Jamaica, "unregulated" means that the owners and managers of the schemes "are not licensed by the regulatory authorities and customers' financial assets are not protected under any national legislation."¹⁷³ The government had to intervene when these schemes all collapsed, and the economy took time to recover.

Jamaicans who were deceived by these schemes lost everything: "Potential depositors sold various personal assets including their homes, cars and consumer durables."¹⁷⁴ These prominent scandals in Jamaica in the 1990s, and another major one in 2013, show that financial crime is on the rise.¹⁷⁵ Consequently, the Jamaican government cannot be faulted for implementing stringent barriers to such crime as it threatens the financial stability and integrity of both developing and developed markets. Jamaica does not have to worry only about its own internal laws, but is also subject to increasing international pressure to comply with stringent requirements for regulations aimed at combating money laundering ("AML") and the financing of terrorism ("CFT").¹⁷⁶ One major outcome is that these scandals may have increased the country's skepticism and distrust in new "schemes" like mobile financial systems that promise great rewards.

B. Regulatory Challenges

Attempting to regulate the banking and financial sector in Jamaica poses unique problems for regulators who are faced with a large informal sector that is part and parcel of Jamaican life.¹⁷⁷ Some say that the lack of sufficient regulation is the reason

172 *Id.* at 3.

173 *Id.*

174 *Id.* at 24.

175 Patrick Linton, Det./Sgt. of the Major Organized Crime & Anti-Corruption Task Force, Address at seminar on the Law Reform (Fraudulent Transactions)(Special Provisions) Act "Cybercrime Elements of Lottery Scamming" 2013 at the Jamaica Police College Lecture Theatre, Twickenham Park, St. Catherine, Jamaica (Apr. 27, 2013) ("[C]ybercrimes amass \$1 trillion worldwide and have overtaken drugs. . .").

176 Abnell & Tsianaxis, *supra* note 94.

177 See INTER-AMERICAN DEV. BANK, *THE INFORMAL SECTOR IN JAMAICA* 1-2 (2006), <https://publications.iadb.org/bitstream/handle/11319/4326/The%20Informal%20Sector%20in%20Jamaica.pdf?sequence=1&isAllowed=y> ("The informal sector is a large and growing portion of the Jamaican economy. In 2001, informal activities represented around 43% of official GDP and by some measures had more than doubled over the previous decade. Enterprises in the informal sector are concentrated in low-productivity, labor-intensive activities. Nearly 60% of Jamaicans in the informal sector work in the wholesale/retail trade or agriculture. Manufacturing is a distant third most important activity, involving only 9%. Most workers, 70%, do not have formal contracts. Work is usually part-time rather than full-time. Women make up a relatively large portion of the informal sector, 57% compared with 50% in the formal sector of the economy. Jamaican informal sector entrepreneurs are, on average, older and better educated than workers in the formal sector. One third of small-firm entrepreneurs have university educations. . .").

that vast numbers of Jamaicans comfortably operate outside the strict confines of the law. “[T]he informal sector operates beyond the law because of inadequate legislation and inefficient bureaucracy. Regulations and government are identified as the main barrier to informal sector development.”¹⁷⁸

In many developing countries, rural financial markets are buoyed by both legal and illegal transactions.¹⁷⁹ Jamaica is not the exception to this rule. Part of the reason for the extra-legal and illegal transactions is that, “commercial banks serve only ten to twenty percent of the population, excluding eighty to ninety percent of the population from the formal financial section.”¹⁸⁰ The problem with not addressing poverty is that people struggle to make ends meet however they can, regardless of whether the sources of income are “under the table.”¹⁸¹

In the arena of digital finance, two important types of regulation exist—prudential and non-prudential. Prudential regulation deals with preventing systemic risks that may result from the failure of banks and other financial institutions. Non-prudential regulation is more concerned about promoting transparency and establishing accounting standards and mechanisms for dispute resolution to protect consumers.¹⁸² In Jamaica, the BOJ is concerned with both prudential and non-prudential regulation when introducing a mobile financial system. Regulation of the financial sector is viewed as essential because such regulation: (1) provides stability to markets; (2) protects customers, workers and taxpayers from “moral hazards;” (3) maintains confidence; (4) promotes business confidence; and (5) minimizes the risk of future financial crises.¹⁸³

178 VICTOR E. TOKMAN, REGULATION AND THE INFORMAL ECONOMY: MICROENTERPRISES IN CHILE, ECUADOR AND JAMAICA 1 (Victor Tokman & Emilio Klein eds., 1996) (discussing microenterprises in Chile, Ecuador and Jamaica).

179 HEYWOOD W. FLEISIG & NURIA DE LA PEÑA, LEGAL AND REGULATORY REQUIREMENTS FOR EFFECTIVE RURAL FINANCIAL MATTERS 1 (Ctr. for the Econ. Analysis of L. 2003) <https://www.microfinancegateway.org/sites/default/files/mfg-en-paper-legal-and-regulatory-requirements-for-effective-rural-financial-markets-2003.pdf>.

180 Ian Davis, Rural Banking: *Designing an Effective Legal Framework for Microfinance*, 2 PEPP. J. BUS. ENTREPRENEURSHIP & L. ISS. 2 (2009), <http://digitalcommons.pepperdine.edu/cgi/viewcontent.cgi?article=1033&context=jbel> (quoting Marguerite S. Robinson, THE MICROFINANCE REVOLUTION: SUSTAINABLE FINANCE FOR THE POOR 6 (World Bank 2001), <http://digitalcommons.pepperdine.edu/cgi/viewcontent.cgi?article=1033&context=jbel>).

181 Thomson, *supra* note 31, at 125 (quoting a local priest, “In Spanish Town, nearly every household was involved in some kind of criminal activity, large or small. Car thieves, cooks and cleaners, musicians, tailors, squeegee men: they all made their money under the table. How could they not? We have extremely high levels of unemployment here, not to mention illiteracy and teenage pregnancy. Poverty breeds rage, and still the killings go on.”).

182 Robert C. Vogel & Gerald Schulz, *Financial Regulation in the English-Speaking Caribbean: Is it Helping or Hindering Microfinance?* COMPETE CARIBBEAN, INTER-AMERICAN DEVELOPMENT BANK 4 (Nov. 2011).

183 *The Importance of Financial Sector Regulation*, *supra* note 122.

The law that is most relevant to digital or mobile finance in Jamaica is the Payment Clearing & Settlements Act of 2010 (the “Payments Act”).¹⁸⁴ According to Professor Michael Witter of the Sir Arthur Lewis Institute of Social Economic Studies, existing regulations (like the Payments Act) in Jamaica are insufficient to serve the needs of a mobile financial system that is not just about “payments and remittance channels,” especially if Jamaica adopts an “agent-based bank model.”¹⁸⁵ For example, Professor Witter stated that the Money Order Act (issued by the BOJ) helps with a bank model but “there is a regulatory void regarding interoperability (a model that can work with any wireless carrier or mobile device) and the use of agents.”¹⁸⁶ The issue of interoperability and the regulation of agents is faced by all countries that are considering the adoption and scalability of digital finance or mobile money architecture: banks are regulated, and are therefore safe. Banks are perceived to be less risky than allowing agents or telecom providers, or participants outside the pre-existing banking sphere, to have unfettered access to consumers.

There is significant resistance from regulators within central banks, including the BOJ, to allowing unlicensed individuals to perform functions typically performed by banks— especially functions related to taking deposits from the public. According to Professor Witter, anyone engaged in the business of taking money from the public must comply with the provisions of the BOJ’s Depositor’s Act. The problem is that tech companies do not want to comply with the Act and banks want all others, including telecom and tech companies, to focus on their own sectors and to leave banking related issues alone. Professor Witter states that there is, however, a need for the legal system to embrace mobile so that banks, tech and/or telecom companies will work together for the greater good of the country.¹⁸⁷

In many ways, the overabundance of caution makes sense. Why introduce unnecessary risk into a seemingly stable and functioning financial system? Despite the major scandals noted above, Jamaica weathered the 2008-2009 financial crisis relatively well.¹⁸⁸

184 Other relevant laws include the Primary and Secondary Legislative Acts of Parliament; Omnibus Banking Law; Banking Act; Financial Institutions Act, 1992 (2004); Money Order Act of 2006; Proceeds of Crime Act; and the Building Societies Act, 1897 (2004).

185 Interview with Michael Witter, Professor at the Lewis Institute of Social and Economic Studies at the University of the West Indies, Mona Campus in Kingston, Jamaica (Apr. 9, 2013).

186 *Id.*

187 Per Robin Sykes, Gen. Counsel with the Bank of Jamaica, the Financial Services Commission (“FINSAT”) and the Jamaica Deposit Insurance Corporation (“JDIC”) regulate non-deposit taking institutions.

188 Interview with Livingstone Morrison, Deputy Governor of the Bank of Jamaica for Finance and Tech Development, at BOJ headquarters in Kingston, Jamaica (May 22, 2013). See also *The Importance of Financial Sector Regulation*, *supra* note 122: (The intervention of the Jamaican government meant that Jamaica largely escaped the 2008 global financial crisis unscathed).

Gov. Morrison believes that “the unbanked can only be banked by banks,” but that “non-bank agents may play a role in providing other services.”¹⁸⁹ According to Gov. Morrison, all non-bank service providers need to seek permission from the BOJ before commencing any operations in Jamaica.¹⁹⁰ As he noted, the success of the deployment of additional products and services would be driven by volume (as demonstrated by the Kenyan model), and would depend on the public’s confidence in trying out new, and largely unfamiliar and untested, financial products. From Gov. Morrison’s perspective, such confidence could only emanate from a strong regulatory framework.

His position makes sense and many regulators would agree based on the experiences of the countries in which mobile money schemes “failed to ignite” (as discussed above in Part IV). Nevertheless, this regulatory stance may be overly limiting and bodes ill for the successful launch of a comprehensive mobile financial system in Jamaica.

C. Beyond Legislation: History, Culture, and Community

*[W]e are a resilient people. In the face of these global challenges our people continue to invent income earning options . . . Activities of the so-called “informal sector” or “hustle economy” which today represents nearly 50% of GDP is indicative of this change.*¹⁹¹

How do specific conditions in Jamaica, including its history and culture, influence the Jamaican government’s openness to implementing a comprehensive island-wide mobile financial system?

Although the wider world knows Jamaica as “a very small, Afro-British country, where tourism, trade, and services predominate,”¹⁹² life on the island is more complex than it might otherwise seem. First, despite its small size, Jamaica has: “a strong democracy, high caliber bureaucracy and good regulatory framework.”¹⁹³ Also, as stated above, there are just under 3 million people currently living in Jamaica, including 1.2 million who are “economically active.”¹⁹⁴ The term “economically active” encompasses both those who are employed in traditional jobs and those who hold

189 Per Gov. Morrison, Panel presentation at Kingston BETA event (April 25, 2013), JAMPRO “non-bank agents such as bill payment providers, card operators and other agent networks might, for example, play a role in providing mobile payment services”.

190 Interview with Gov. Morrison, *supra* note 188. During our meeting, an author asked about whether the BOJ had granted permission or licenses for any providers to provide mobile financial services in the country; he said that several had requested licenses, but to date, none had been granted. From his tone, the success of future applications sounded extremely doubtful.

191 Hamilton, *supra* note 104, at 2.

192 Tokman & Klein, *supra* note 178, at 3.

193 World Bank, *supra* note 68, at 3.

194 Tokman & Klein, *supra* note 178, at 3.

some form of informal employment outside of agriculture.¹⁹⁵ Most significantly, a “dual economy” exists in Jamaica:

One sector of the economy, the “modern sector,” is the dominant sector where large companies operate. The other sector, the “subsistence sector,” has a great deal of self-employed persons, and others earning low wages or no wages at all. The existence of surplus labour in the subsistence sector creates low productivity, low wages & low standard of living.¹⁹⁶

Further, most Jamaicans rely exclusively on cash for everyday financial transactions. These numbers are no anomaly and reflect a situation common to much of the world, as “85 percent of transactions across the globe are still based on cash and checks.”¹⁹⁷ Despite the touted benefits of mobile wallets or digital finance generally (including added protection and convenience), it may be hard to break any society’s reliance on cash. Moving Jamaica from a cash-based economy will not be easy, but one developing country with significantly lower economic prospects has shown that a move away from cash is possible even in the most dire circumstances. Most financial transactions in Somaliland are not cash based,¹⁹⁸ and (as documented above in Part III), Somaliland is one of the eight countries that experienced explosive and successful growth in mobile money.

Another feature of Jamaica’s dual, cash-based economy is that unemployment is high, and is most keenly felt by young Jamaicans. In some inner-city communities, youth unemployment is as high as 70%.¹⁹⁹ Also, productivity is low, as “about 75% of our labour force has no training or certification.”²⁰⁰ In 2017, it is estimated that the gross

195 *Id.*

196 Hamilton, *supra* note 104, at 2 (citing Nobel Laureate, Sir Arthur Lewis).

197 Peter Svensson, *Digital ‘Wallets’ Proliferate at Cellphone Show*, ASSOCIATED PRESS (May 10, 2012) <http://news.yahoo.com/digital-wallets-proliferate-cellphone-show-215032239—finance.html> (citing Gary Flood, MasterCard’s president of global products and solutions).

198 Matthew Vickery, *The Surprising Place Where Cash is Going Extinct*, BBC FUTURE (Sept. 13, 2017), <http://www.bbc.com/future/story/20170912-the-surprising-place-where-cash-is-going-extinct> (“The self-declared country, which broke away from Somalia in 1991 but remains unrecognised by the international community, has become something of a wild frontier for cashless payments as it charts a trajectory towards creating the world’s first cashless society. Whether in a shack on the side of a road or a supermarket in the capital of Hargeisa, mobile payments are fast becoming the standard in the country.”).

199 Hamilton, *supra* note 104, at 2.

200 *Id.*

domestic product was \$5,119.50 (USD) per inhabitant,²⁰¹ and the minimum wage was \$51 (USD) per month.²⁰²

According to Professor Rosalea Hamilton, there is unprecedented debt in Jamaica, the trade gap is tremendous, and the “environment for doing business is getting worse.”²⁰³ Others note that there are “asymmetrical credit relations” in Jamaica.²⁰⁴ The barriers to credit are significant, but exist on both sides. On the one hand, banks have standards that few small business owners can meet; on the other, many small business owners do not request credit at all.²⁰⁵

Despite these grim facts, Prof. Hamilton is determined and unbowed. She believes that the way forward must be rooted in several solutions. In her view, Jamaica needs to: (1) increase exports of locally produced goods and services; (2) move away from its reliance on manufacturing (as higher energy costs mean that sector is becoming less viable); and (3) come up with new, knowledge-based ideas, as well as innovative goods and services. Prof. Hamilton also believes that technology is the way forward for Jamaica:

We now have tech. It’s staring us in the face, but we can’t see it. Entrepreneurs are change agents who are seeking to maximize profits through innovative means. Change agents are known for their creativity. There has to be a process of capital accumulation. There should also be social capital entrepreneurship. These opportunities have to be created and we need proactive, out of the box thinking.²⁰⁶

She stressed important developments happening at the World Trade Organization, and the importance of Jamaicans understanding trade rules. From her perspective, the

201 GLOBAL FINANCE, *supra* note 71.

202 Denise Clarke, *What is the Minimum Wage in Jamaica?*, EPIC JAMAICA (July 26, 2014), <http://www.epicjamaica.net/jamaica-facts—info/what-is-the-minimum-wage-in-jamaica>.

203 Breakfast Meeting with Professor Rosalea Hamilton, PhD, the Vice President, Development at the University of Technology, Jamaica and Founder and Director of the Institute of Law & Economics, and leaders of a women’s group at the UTCWI (Tuesday, April 16, 2013). The purpose of this meeting was for Ms. Hamilton to brief the group regarding women’s business organizations and to brainstorm how to tackle the matter of women becoming owners of their own businesses and achieving financial freedom.

204 Tokman & Klein, *supra* note 178, at 21. This means that would-be entrepreneurs (those who could stimulate the economy while providing jobs for themselves and for others) are faced with a dilemma. At the outset, they cannot start and maintain their businesses without sufficient credit—receiving loans for start-up costs from banking institutions or receiving essential goods from suppliers. However, they face inadequate support from formal institutions (who may not want to lend without sufficient evidence of success). On the other side, they are “being forced to give credit to customers without being able to enjoy the same benefit in relation to their suppliers.” Yet giving credit to consumers reduces the working capital available to small firms (23). This situation, according to the authors, eventually leads to liquidity problems and cash shortages—often dooming the business before it is well off the ground.

205 *Id.* at 25.

206 Interview with Prof. Hamilton, *supra* note 203.

island has “internal” issues that need work, and she emphasizes the point that productivity in Jamaica is in “major decline.” She wondered aloud: “How do you get workers to produce more while holding [high] wages the same?” She listed several other areas for improvement, including: “managing legal competencies,” the problem of people running businesses without being registered or paying taxes, and further developing key skills within the population.

Specifically, Prof. Hamilton called out a need to focus on human resources, marketing, record-keeping and accounting (“You should know what’s going in your business!”), modern information technology, and increasing citizen’s understanding of financing. (She suggested the pursuit of online degree programs or certifications.) Prof. Hamilton also detailed a Scotiabank-sponsored project that was intended to show business owners how to minimize or mitigate risks and facilitate their access to financing. She urged those assembled in the room that day to “use the tools” provided on the Internet (“A virtual business is a real business!”), but to still pay their taxes. As she concluded: “Jamaica is crying out for entrepreneurs.”

All the points discussed by Prof. Hamilton in this workshop illustrate many issues echoed by other scholars on the island. These problems are just a few of the serious challenges that Jamaica will need to, and can, overcome as it forges a path forward.

One issue not discussed by Prof. Hamilton, but nonetheless deeply rooted in Jamaica’s unique history and culture, is that many Jamaicans will say that they do not trust banks.²⁰⁷ As a result, there is a strong tradition of “savings cooperatives,” also known as ROSCAS (rotating savings and credit associations) or “partners,” to which many people on the island belong.²⁰⁸ One question is not just whether there is the institutional will for mobile money, but whether, there is or would be popular interest and willingness to try out a system beyond the partner system. There may not be.

While many Jamaicans do not trust banks, their distrust of politicians is almost on par. Politics in Jamaica also plays a major role in almost all areas of life.²⁰⁹ Many people in Jamaica believe that new businesses need to have political connections to obtain important contracts needed to survive, yet few have these contacts.²¹⁰ In addition, many Jamaicans are resigned to the political link to crime. It is a well-known part of

207 Tokman & Klein, *supra* note 178, at 20, 25 (nothing that in Jamaica, only 20% of the entrepreneurs surveyed stated that they tried to obtain formal credit (10% actually obtained credit); of those who didn’t apply, half of the respondents said that they didn’t like or need to borrow, and forty percent (40%) said that they were unable to comply with the formal requirements needed to obtain funds.).

208 Tokman & Klein, *supra* note 178, at 20.

209 See Harriott, *supra* note 41, at 41 (“facilitative political patronage” as a factor in the development of organized crime), and 43 (“The methods of political mobilization were implicated in the extraordinary rise in violent crimes.”).

210 Tokman & Klein, *supra* note 178, at 22 (noting that, in Jamaica, only seven percent (7%) of new enterprises receive such contracts).

Jamaica's historical legacy that political parties supply guns to their supporters to bolster their position within inner-city communities.²¹¹

High levels of crime adversely impact the economic and investment climate in Jamaica.²¹² The levels of crime on the island may also lead many young residents to question whether life is even worth living.²¹³ Per the UN: "armed violence can aggravate poverty, inhibit access to social services and divert energy and resources away from efforts to improve human development." Similarly, the World Bank notes that countries that are plagued by armed violence are behind in attaining the Millennium Development Goals (as described above in Part I), such violence often impedes economic growth.²¹⁴

Part IV

Tolling for a New Mandate

In some respects, twenty-first century Jamaica, with its mass poverty, its social resentments, its skewed distribution of wealth, is like pre-Revolution

- 211 See, e.g., Glaister Leslie, *Confronting the Don: The Political Economy of Gang Violence in Jamaica*, SMALL ARMS SURVEY, GRADUATE INSTITUTE OF INTERNATIONAL AND DEVELOPMENT STUDIES 1-3 (Sept. 2010), <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.469.1613&rep=rep1&type=pdf> ("In 2009, the US State Department requested that Jamaica extradite one Christopher 'Dudus' Coke on charges of drug and gun trafficking. Local officials had long accused Coke, alleged leader of one of Jamaica's most powerful gangs, of involvement in criminal activities. Yet the Jamaican government uncharacteristically delayed carrying out the request. Reflecting the country's legacy of political linkages to crime, however, most Jamaicans reacted with resignation when they recalled that Coke and his gang operated out of a political constituency with a long history of iron fisted gangs, enforcing voter support for the ruling political party. Politicians, people quietly commented, would not bite the hand that feeds them. Though the political facilitation of crime has declined since the country's bloodiest national elections in 1980, it remains an enduring—though less overt—force. The persistent facilitation of gang activity by politicians continues to hinder targeted violence reduction efforts, despite the government's vociferous public condemnation of crime and violence and official support of both punitive and social approaches to violence reduction.") (emphasis added). See also, Harriott, *supra* note 41, at 41 ("facilitative political patronage").
- 212 *Id.* at 42 ("There is a body of literature, including considerable empirical work, that discusses the causes of these crimes and their impact on the social, political, and economic development of Jamaica. Among the adverse effects cited are the negative impact on the investment climate (Francis et al. 2009), erosion of existing development, and prevention of the development of human and social capital (UNDP 2012.")).
- 213 Thomson, *supra* note 31, at 42 ("It was an unwritten rule that you never stop at night at the traffic lights on Spanish Town Road."). See also Thomson at 123 (quoting Richard Albert) ("Right now, there's anarchy in Spanish Town. And the kids don't care if they die today, the next day, the next week: they don't care because they're already dying.")
- 214 See *Beyond the Millennium Development Goals: Towards an OECD Contribution to the Post-2015 Agenda*, ORG. FOR ECON. DEV. (2015), <https://www.oecd.org/dac/POST-2015%20Overview%20Paper.pdf>.

*France; only in Jamaica there is no sign of a revolutionary movement, no glimmer even of organized political protest. So the wealthy will have nothing to fear: the poor are too disorganized, too ill-educated, for social revolution. There is, however, something far worse: thousands of empty, wasted lives, and an endemic of violence, in which God is a US-import Glock.*²¹⁵

Despite its problems, and maybe because of them, Jamaica is uniquely positioned to take advantage of technological developments that have, and are, transforming the developing world. The risks of emerging technologies can be mitigated by re-examining existing regulations. Developing laws that are transparent, fluid to change, and tailored to address the digital revolution is not an insurmountable task. However, to make it work, Jamaicans, from the bottom up, must decide to embrace change, and must agree that the current status quo is untenable. Before attempting any comprehensive regulatory reform that embraces technology, the government and regulators in the Bank of Jamaica need to listen to the demands and unmet needs of the people. Any new mandate should specifically include a commitment to provide increased access to financial products and services to a larger percentage of the population.

The mandate should include not only the unbanked, but the underbanked, especially since 70% of Jamaica's population is underbanked.²¹⁶ The mandate should improve financial access for small business leaders and entrepreneurs, as well as young community leaders. Jamaican youth are hungry for opportunity and the government should be prepared to help. There are many youths who are creative and driven enough to follow through on their desires to see a better Jamaica—one that is inclusive, productive, and more competitive.

Outsiders may discount Jamaica due to its size. While Jamaica may not be in a position to compete on the same level with “China, India and other countries with significant cost advantages due to economies of scale and very low wages,”²¹⁷ there is no reason why regulatory reform could not put Jamaica in a much better economic position than it currently enjoys.

Too often, leaders attempt to impose reforms from the top down. Instead, leaders should involve the population, and better yet, involve other Caribbean populations who are similarly hungry. Compete Caribbean, a “private sector development program” that delivers “innovative and practical solutions that stimulate economic growth, increase productivity and foster innovation and competitiveness” in 13

215 Thomson, *supra* note 31, at 32. See also, Harriott, *supra* note 41, at 23 (“Violent offenders, and in particular gang members, appear to have fairly easy access to illegally imported firearms.”).

216 *Jamaica's Underbanked to Get Mobile Wallet with Mozido*, FINEXTRA (Sept. 4, 2014), <https://www.finextra.com/pressarticle/56578/jamaicas-underbanked-to-get-mobile-wallet-with-mozido/payments>.

217 Hamilton, *supra* note 104, at 3.

countries in the Caribbean,²¹⁸ is just one example of such a push. Jamaica does not need to confront these challenges alone. Added together, 6,810,884 people are living within CARICOM nations. There must be a way to better facilitate cooperation in the region for the purposes of economic development and financial inclusion.

Others have made the case for a unified Caribbean economic community, similar to what is practiced in the European Union—the CARICOM Single Market and Economy (CSME). “It is fundamentally about moving on to a new development path, a path characterized by greater inputs of knowledge, new production and working practices, new corporate arrangements, new business models.”²¹⁹ Currently, Jamaica may not have the numbers to scale up mobile financial services to a level that would be sustainable by themselves. That is not true however, if Jamaica is willing to look beyond its borders to similarly-situated countries in the region.

Concluding Thoughts

*[A]ny new and genuine economic development of the Caribbean has to begin first of all with the involvement of the mass of the population . . . Nobody knows what the Caribbean population is capable of . . . Nobody has even attempted to find out.*²²⁰

How do you convince an entire country to move beyond a traditional reliance on cash? The first step is to emphasize something that everyone in the world already knows, which is how insecure cash really is—simply having one’s wallet stolen or lost is enough to throw most people’s lives into a tailspin. Every facet of your personal and financial health becomes vulnerable—credit cards, bank accounts, passwords, yes, but also credit history, home and family security (a U.S. driver’s license generally carries the bearer’s home address), insurance records, and much more.²²¹ Second, one might demonstrate examples of where movements away from cash have worked. Take Bitcoin for example. Bitcoin is a type of electronic currency that has seen both the highest of highs and the lowest of lows upon its first introduction to the world. Now however, some say that Bitcoin, “the Internet’s version of money,”²²² is emerging as a stable and intriguing concept that is well worth continuing observation and analysis:

218 See COMPETE CARIBBEAN, <http://competecaribbean.org/about-us/> (last visited Jan. 28, 2018).

219 Hamilton, *supra* note 104, at 3.

220 C.L.R. JAMES, *The Birth of a Nation*, in CONTEMPORARY CARIBBEAN - A SOCIOLOGICAL READER (Susan Craig ed., 1981).

221 Peter Svensson, *Digital ‘Wallets’ Proliferate at Cellphone Show*, ASSOCIATED PRESS (May 10, 2012), <http://news.yahoo.com/digital-wallets-proliferate-cellphone-show-215032239-finance.html> (citing a speech by Gary Flood, MasterCard’s president of global products and solutions).

222 Rebecca Grant, *Bitcoin for Idiots: an Introductory Gintroductory uide*, VENTURE BEAT (Feb. 17, 2014), <http://venturebeat.com/2014/02/17/bitcoin-for-idiots-an-introductory-guide/>.

Now Bitcoin is emerging out of its angsty adolescence into a more mature, adult, stable form. The Bitcoin ecosystem is growing more robust and legitimate, and the movement's evangelists are pushing hard for mainstream adoption — to turn Bitcoin into a currency rather than an asset or a financial lark and make the most of its unique capabilities.²²³

Yet there are real dangers involved with Bitcoin and other so-called “cryptocurrencies” that are often unregulated: “Those virtual currencies do not really know who their customers are,” says Tom Kellermann, chief cybersecurity officer at the security company, Trend Micro. “Traditional money laundering has migrated over to cyberspace.”²²⁴ Given that Jamaica and other nations are already trying to limit these kinds of threats, in addition to documented threats to the vulnerable software from hackers,²²⁵ it seems that Bitcoin is probably not the best answer.

One thing seems clear— this topic needs further research. Several developing nations like Kenya have successfully adopted digital finance as the way forward, and that trend is likely to continue. The adoption of MFS in these countries has led to demonstrated increases in GDP.

Here are some final thoughts on the prospects for future growth in Jamaica:

1. Heavy regulation will doom mobile money.
2. Regulation should allow for both bank and non-bank models.
3. The government of Jamaica should establish a central regulatory body that, similarly to the Consumer Financial Protection Bureau in the United States, coordinates regulatory actions of various governmental agencies, including the BOJ, the FSC, the Office of Utilities Regulation, and others.
4. Mobile network operator (non-bank) models need to allow an agent network to engage in deposit-taking functions (such deposit-taking functions are currently prohibited for non-banks in Jamaica). Interoperability is essential.
5. Any mobile financial framework needs to include coordination between the central bank, traditional banks, and mobile operators. Credit unions and other financial organizations should not be excluded.
6. Barriers to increased sharing of customer data between institutional partners should be reduced.

223 *Id.*

224 Priya Anand, *10 Things Bitcoin Won't Tell You 5*, MARKET WATCH (Aug. 2, 2014), <http://www.marketwatch.com/story/10-things-bitcoin-wont-tell-you-2014-07-25?page=5>.

225 *Id.* at 6 (Hacker attacks and a “software glitch” caused Mt. Gox, a Bitcoin exchange to lose \$400 million worth of bitcoins.).

7. The government of Jamaica should concurrently develop a national data security and privacy regulatory framework to preemptively address the dangers of digital crime.
8. Banks alone cannot be allowed to determine the reach of mobile financial systems or develop exclusive deals with telecom providers. Both industries are by nature anti-competitive.
9. The Jamaican business community should be asked for input and fully involved in designing whatever system is ultimately adopted.
10. Focus on the creation and/or widespread monitoring of a national identity infrastructure that is reliable. Users should receive a standard ID that is paired with biometric data through which banks can verify customer identity via a central government repository, reduce complexity and lower costs currently associated with KYC requirements.
11. The BOJ should continue to work on regulatory reforms and technological innovations that ease the burden (and cost) of AML requirements.
12. The government of Jamaica needs to develop a strong mandate that encompasses financial inclusion and access for all Jamaicans. Such mandate should include the goal of putting Jamaica at the forefront of innovation. Being at the forefront of innovation means considering what it would take to utilize technology to move towards a cashless society.

As it is already a member of a larger economic and business-minded community, Jamaica is uniquely poised to reap the advantages of these new mobile business opportunities. Neither the Bank of Jamaica nor the government can afford to sleep on this particular opportunity. The Jamaican people took one huge leap of faith in 1962. The Jamaican government needs to show the world that despite the country's challenges, it is willing to continue moving its small but mighty island forward.