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The Future Is Mobile:

Financial Inclusion and Technological Innovation in the Developing World

Eleanor Lumsden *

DRAFT: NOT FOR CIRCULATION

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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 from taking advantage of the full fruits of the financial system. Especially in developing countries, 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.

Keywords: income inequality, financial inclusion, mobile finance, mobile banking, technology, innovation, regulatory reform, digital revolution, Jamaica

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 a wallet, a checkbook, a bank branch, and an accounting ledger, all in one.

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 There are also “500 million economically active poor people in the world operating microenterprises and small businesses,”³ but millions of people are still excluded from the wide spectrum of credit, investment and wealth-building financial services that are necessary to move beyond subsistence living. The question sought to be answered by this paper is whether developing, economically stable, economies should embrace emerging digital finance to foster financial inclusion.⁴ Can laws be created that minimize potential threats to individual privacy and data security, while still allowing

¹ James Manyika and Roger Voorhies, *What Digital Finance Means for Emerging Economies*, FORTUNE MAGAZINE, 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 U.S. Dept. of Treasury, Office of the Comptroller of the Currency, Financial Crime, <https://www.occ.gov/topics/bank-operations/financial-crime/index-financial-crime.html>. See also, PWC, *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 The World Bank, 2002.

⁴ Jane K. Winn and 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.”

these technologies the breathing space that they need to make a difference?⁵ Answering these questions in the affirmative is especially important for the poorest members of developing societies.

The Digital Revolution has been taking the developing world by storm for years now, 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 more apt to embrace technologies like mobile money first, and ask questions later.⁶ 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 current climate of 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,⁷ and consumer privacy and security cannot be taken lightly.⁸ As has already been shown in the United States, many laws are inadequate to the task of protecting consumer financial information.⁹ Why take the risk of exposing developing economies to the risk of new technology that could cause economic instability? There are already enough challenges in the developing world and many of these countries likely believe that the risk may not be worth any potential reward. The balance between regulation and innovation is a 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.*¹⁰

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?

⁵ For an analysis of the regulatory challenges in the United States in this regard, please see Eleanor Lumsden, *Securing Mobile Technology & Financial Transactions in the United States*, BERKELEY BUSINESS LAW JOURNAL, Vol. 9, 2013.

⁶ 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.

⁷ 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...”).

⁸ See for 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).

⁹ Lumsden, *supra* note 5 at 139.

¹⁰ ROGER BROWNSWOOD AND MORAG GOODWIN, LAW AND TECHNOLOGIES OF THE TWENTY-FIRST CENTURY, CAMBRIDGE UNIVERSITY PRESS, 46 (2012).

Neither the developed nor the developing world has successfully addressed the problem of income inequality. 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. 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 Netherlands is using technology to combat hunger in the developing world through a program that uses satellite data to improve food security.¹¹ Low-cost, yet highly effective mosquito nets are being produced by the thousands to protect poor children from Malaria throughout Africa and Latin America. Stanford MBA students created solar-powered lamps (to replace more dangerous kerosene lamps) for the poor.¹² Others are providing low-cost laptops to poor rural children in Africa, Asia and Latin America.¹³ 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.¹⁴ 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.¹⁵ Specifically, the technology startup, “8villages,” gave 900 farmers the opportunity to test a business social networking service that allowed them to access product reviews written by senior farmers by entering a code on their mobile phones.¹⁶ As almost fifty percent of Indonesia’s 230 million people live off the land, the use of mobile phones in this regard should have a measurable impact on economic growth. Several studies have in fact 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,¹⁷ and that countries with higher level of data usage per 3G connec-

¹¹ 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>.

¹² Marc Gunther, *Dlight: Solar Power for the Poor*, Mar. 3, 2013 (Blog), <http://www.marcgunther.com/d-light-solar-power-for-the-poor>.

¹³ 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 (Techtank), 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.

¹⁴ C.K. PRAHALAD, *THE FORTUNE AT THE BOTTOM OF THE PYRAMID: ERADICATING POVERTY THROUGH PROFITS*, WHARTON SCHOOL PUBLISHING, 2004.

¹⁵ Karishma Vaswani, *Indonesian Farmers Reaping Social Media Rewards*, BBC NEWS, June 4, 2012, <http://www.bbc.com/news/business-18193993>.

¹⁶ *Id.* (Vaswani).

¹⁷ 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 GDP, or

tions have seen increases in GDP per capita growth exceeding a percentage point.”¹⁸

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.”¹⁹ Similarly, 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.”²⁰ Mobile farming and mobile fisheries in Kerala, India have both “been associated with increases in fisherman’s profits of 8%...”.²¹ 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 developing 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.²² Furthermore, there are several country-based examples of attempts to adopt mobile financial architecture that allows non-bank as well as bank participants to access finance, including: such systems may provide subscribers with the ability to make deposits, deposit savings, transfer money, withdraw cash, pay utility bills, purchase goods in retail outlets, or receive employment or health benefits from government agencies—all via basic handsets and SMS or text message-based platforms.²³

Adopting a comprehensive mobile financial system in Jamaica may: (1) supplement existing banking models; (2) increase the likelihood that more peo-

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.”

¹⁸ 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 Chris Williams, Gabriel Solomon, and Robert Pepper, *What is the Impact of Mobile Telephony on Economic Growth?*, DELOITTE AND GSM ASSOCIATION, 1-3, Nov. 2012, <https://www.gsma.com/publicpolicy/wp-content/uploads/2012/11/gsma-deloitte-impact-mobile-telephony-economic-growth.pdf>.

¹⁹ *Id.* (Williams, Deloitte Report), at 2.

²⁰ Vaswani, *supra* note 15.

²¹ Dawn Richards Elliott, *Exploring the Economic Potential of a Mobile Financial System in Jamaica*, PRIDE JAMAICA/ CARANA CORP., Aug. 2011, at 24.

²² *Id.* (Elliott, *supra* note 21), at 3.

²³ David S. Evans and Alexis Pirchio, *An Empirical Examination of Why Mobile Money Schemes Ignite in Some Developing Countries but Flounder in Most*, 20, March 14, 2015, Univ. of Chicago Coase-Sander Institute for Law & Economics Research Paper No. 723, <http://ssrn.com/abstract=2578312>: 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.

ple 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 it potentially removes the traditional bank monopoly on providing financial products and services. As will be 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 must 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, and not hinder fledgling mobile money services while still maintaining stability in financial markets and not exposing developing economies to undue risk? 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?²⁴

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 like 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 tech 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.²⁵

PART I

I. 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 stub-

²⁴ Remittance transfers, where migrants work to wire money back to their families in their countries of origin, is a common use of mobile phones.

²⁵ 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 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 Development Bank of Jamaica Limited, National Commercial Bank, and Transcel, Mobile Money for Microfinance: a Pilot Project of the Development Bank of Jamaica (Overview), January 2013.

*bornly in place. The problem of the colour-line continues to haunt Jamaica.*²⁶

*“Charity begins at home, and justice begins next door.”*²⁷

No one likes to talk about poverty. In the U.S., the issue often falls to the bottom of political platforms (that is, if it manages to make an appearance at all).²⁸ 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.²⁹ In the European Union, “nearly 1 in 7 people are at risk of poverty.”³⁰ In the United Kingdom, 16.8% of the population live in poverty,³¹ and one in four children live below the poverty line.³² And this is the “developed” world.³³

But what does it mean to be poor? The metric set by the United Nations says that one is poor if you are living on less than a dollar a day: 1.2 billion live on less than \$1 a day, while approximately 2.8 of the 6 billion people in the world live on less than \$2 a day.³⁴

At its most basic level, poverty means that you cannot feed your family, that you are unemployed or cannot find a consistent way of supporting yourself, or that you are without adequate shelter. Although you may long for long-term stability and living that is beyond subsistence or day-to-day survival, you cannot plan for, or ensure your financial future: there is no retirement fund, and you cannot purchase short or long-term insurance, including for example, disa-

²⁶ IAN THOMSON, *THE DEAD YARD: A STORY OF MODERN JAMAICA*, 5 NATION BOOKS, MAR. 29, 2011.

²⁷ CHARLES DICKENS, *TIGG IN MARTIN CHUZZLEWIT*, CH. 27 (1844).

²⁸ In the last 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.” See Editorial (Opinion), *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.

²⁹ Associated Press, *US 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, 2 April 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>. (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.”).

³⁰ Hugh Frazer and the European Anti-Poverty Network, *Poverty and Inequality in the European Union*, <http://www.poverty.org.uk/summary/eapn.shtml> (last accessed on Sept. 30, 2017).

³¹ See Office for National Statistics, *Persistent Poverty in the EU and UK: 2014*, <https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/articles/persistentpovertyintheukandeu/2014> (last accessed on Sept. 30, 2017).

³² Royal Geographical Society, *Poverty in Britain*, <https://21stcenturychallenges.org/poverty-in-britain/> (last accessed on Sept. 30, 2017).

³³ CIA World Factbook: 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. Available at: <https://www.cia.gov/library/publications/the-world-factbook/appendix/appendix-b.html#D>.

³⁴ World Development Report 2000/2001: *Attacking Poverty*, 3 Oxford University Press, 2001.

bility nor life insurance that may be necessary in the event of “rainy days.” You must scramble to adjust to life’s vicissitudes as they come. When there are unexpected illnesses or deaths, you must scrape to try to come up with the money to pay hospital bills or bury your dead. You may call on friends and relatives and beg for assistance. Sometimes, if you have a large extended family, someone will be able to help. But they are often in dire financial straits as well, and although they are stretching to help you, you must in turn, reach to help them when their time of need comes. This reality ensures that any savings you might accumulate will in time disappear.

Any savings may also be wiped out in case of natural disaster, including drought, hurricanes, fire and flood.³⁵ You are also more vulnerable to man-made disasters, including rampant crime,³⁶ or corruption (you’re stopped by a police officer for a moving violation and, whether innocent or guilty, your choice is either pay a fine that you know that you cannot afford, or a hefty but still smaller bribe to save yourself 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 you may be trying to save.

The global recession of 2008-2009, its causes still not well understood by the masses who most felt its impact the most,³⁷ has 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 U.S. by bus.³⁸ 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 of poverty in the United States:

*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.*³⁹

No one seems to be listening.

³⁵ Eleanor Krause and 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/>.

³⁶ Anthony D. Harriott and Marlyn Jones, *Crime and Violence in Jamaica: IDB Series on Crime and Violence in the Caribbean*, INTER-AMERICAN DEVELOPMENT BANK, 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.”)

³⁷ ALAN S. BLINDER, *AFTER THE MUSIC STOPPED: THE FINANCIAL CRISIS, THE RESPONSE, AND THE WORLD AHEAD*, PENGUIN BOOKS, 2014.

³⁸ A preview video of The Poverty Tour is available at: www.pbs.org/black-culture/shows/list/tavis-smiley-the-poverty-tour/.

³⁹ TAVIS SMILEY AND CORNEL WEST, *THE RICH AND THE REST OF US: A POVERTY MANIFESTO*, SMILEYBOOKS (2012)(With 150 million Americans persistently poor or near poor, the highest numbers in over five decades, Smiley and West argue that now is the time to confront the underlying conditions of systemic poverty in America before it’s too late.).

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 whose members, China, France, Great Britain, the Russian Federation and the United States,⁴⁰ are frequently accused of stymying any chance of real reform whenever any of their domestic agendas are threatened.⁴¹ Still, in September 2000, the U.N. announced policy goals aimed at eradicating poverty world-wide.⁴² 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,” and included:

- 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.⁴³

Poverty’s placement at the top of the list along with hunger shows the significance of the issue. The idea was to try to reach these goals by 2015. While there has been progress on many of the goals,⁴⁴ “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.”⁴⁵

At the very least, we can say that 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.⁴⁶ 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 busi-

⁴⁰ See United Nations Security Council, Current Members, <http://www.un.org/en/sc/members/>.

⁴¹ Zachary Laub, *The UN Security Council, Council on Foreign Relations*, 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.”

⁴² <http://www.unmillenniumproject.org/goals>.

⁴³ <http://www.unmillenniumproject.org/goals>.

⁴⁴ United Nations Development Programme, Eradicate Extreme Poverty and Hunger: Where Do We Stand?, http://www.undp.org/content/undp/en/home/sdgoverview/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.”

⁴⁵ World Vision International, *Were the Millennium Development Goals a Success? Yes! Sort of*, July 3, 2015.

⁴⁶ Djordjija B. Petkoski, V. Kasturi Rangan, and William S. Laufer (guest editorial), *Business and Poverty: Opening Markets to the Poor, Development Outreach*, [Vol. 10, No. 2] June 2008, World Bank Institute, at 4.

ness culture among multinational corporations (“MNCs”), and encouraging MNCs to partner with local businesses.⁴⁷

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 the fiercely independent island nation with an equal measure of distrust and disrespect.⁴⁸ 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.⁴⁹ 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 outside 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.⁵⁰ What does one do with such sights? The relatively small size of the islands means that any squalor and destitution are much harder to avoid, even if they are only seen in passing on the way to the sanctuary of a gated compound.⁵¹ The fact is that this life 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.⁵²

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. There are fifteen (15) nations that make up the Anglophone Carib-

⁴⁷ *Id.* (Petkoski), at 5.

⁴⁸ Thomson, *supra* note 26, 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.”

⁴⁹ Thomson, *supra* note 26, 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.”

⁵⁰ *Id.* (Thomson, *supra* note 26), 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?”

⁵¹ *Id.* (Thomson, *supra* note 26), 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.”

⁵² 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 capital 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 typically around \$500). See Margaret Cunningham, Economic Inequality: Differences in Developed and Developing Nations, Transcript, available at <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).

bean,⁵³ 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), 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).⁵⁴ CARICOM shares many things—English as a common language, a common enemy (hurricanes), and a dwindling reliance on agriculture yet increasing dependence on tourism and the service sector⁵⁵—but most other similarities end there.⁵⁶

Despite the geographic proximity, outsiders need to be wary of simplistic comparisons that do not 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. Given these differences, and due to a desire to focus on one of the islands that is taking seriously both the promise and challenge of emerging technology in the mobile sphere, this Article will focus specifically on the prospects for technological and financial innovation in Jamaica. Within CARICOM, Jamaica is considered a moderately developed country or a “MDC;” in contrast, the Republic of Haiti is considered a less developed country (a “LDC”).⁵⁷ Today, the difference is more rooted in geographic size rather than per capita income,⁵⁸ 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 making its way forward since independence slowly and cautiously. Many, although not all, former colonial territories like Jamaica share a decades-long struggle with poverty and its related ills—high illiteracy rates,⁵⁹ low productivity, bu-

⁵³ Note that two of these nations are not technically located in the Caribbean, including Belize (which is in Central America) and Guyana (South America).

⁵⁴ CIA World Factbook, 1997. Available at: <http://www.postcolonialweb.org/caribbean.html>.

⁵⁵ 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 26, at 156. In contrast, tourism “contributes US \$1 billion a year to the island’s economy.” Id. (Thomson, *supra* note 26), at 325.

⁵⁶ It should be also noted that CARICOM “has a sound background of cooperation in trade, external economic negotiations, education, sports, and culture.” See Norman Girvan, *Societies at Risk: The Caribbean and Global Change*, UNESCO, Management of Social Transformations (Discussion Paper Series No. 17), Feb. 1997, <http://unesdoc.unesco.org/images/0011/001107/110757Eo.pdf>.

⁵⁷ The Jamaica Observer, *Poorer CARICOM States Subsidizing Richer Ones*, Sept. 26, 2012, <http://www.jamaicaobserver.com/editorial/Poorer-CARICOM-states-subsidising-richer-ones>.

⁵⁸ 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). The Jamaica Observer, *Poorer CARICOM States Subsidizing Richer Ones*, Sept. 26, 2012, available at <http://www.jamaicaobserver.com/editorial/Poorer-CARICOM-states-subsidising-richer-ones>.

⁵⁹ Thomson, *supra* note 26 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 26, at 30:

reaucratic inefficiency,⁶⁰ sociopolitical turmoil, corruption,⁶¹ and crime⁶²—ills that are often remnants of the haphazard division or joinder of formerly separate and autonomous peoples. Jamaica has not been immune from these socio-political impacts: somehow, a country of just three million inhabitants is still known for having one of the highest murder rates in the world.⁶³ Jamaica also has a high incidence of financial crime.⁶⁴

On the other hand, Jamaica has many positive attributes to recommend it that go 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.”⁶⁵ Jamaica has a stable economic climate, and has been named one of the best countries to do business.

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 “ignited” most successful in countries with “very poor physical infrastructure,” “extremely low penetration of banking, and poor physical transport in terms of road systems and automobiles.”⁶⁶ One thing these countries have in common are mobile phones.⁶⁷

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 said products and services due to desperation for new solutions to poverty.⁶⁸ The question is, how desperate is Jamaica?⁶⁹

“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.”

⁶⁰ Thomson, *supra* note 26 at 119: “Jamaica is a land of waiting.”

⁶¹ *Id.* (Thomson, *supra* note 26), 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.”).

⁶² Thomson, *supra* note 26, 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.* (Thomson, *supra* note 26), 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...”.

⁶³ *Id.* (Thomson, *supra* note 26), 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.”).

⁶⁴ See World Bank, *Crime and its Impact on Business in Jamaica*, at 7, available at <http://siteresources.worldbank.org/INTLAWJUSTINST/Resources/JamaicaPaper.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.”).

⁶⁵ Thomson, *supra* note 26, at 348.

⁶⁶ Evans and Pirchio, *supra* note 23, at 19.

⁶⁷ *Id.* (Evans and Pirchio, *supra* note 23), at 19.

⁶⁸ *Id.* (Evans and Pirchio, *supra* note 23), 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

II. 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.*⁷⁰

Financial exclusion is problematic because “financial access is positively correlated with poverty reduction, employment generation, assets and wealth accumulation and economic growth.”⁷¹ Currently, “2.5 billion people globally do not have a credit report... bringing unbanked consumers and businesses into the formal sector could generate \$380 billion in new revenue.”⁷² The problem of financial exclusion in developing countries generally is acute: “90% of those who do not own financial accounts live in Africa, Asia, Latin America and the Caribbean.”⁷³

A lack of financial access means that you do not have access to sufficient capital (perhaps due to either insurmountable bureaucratic barriers or traditional banking prerequisites), and cannot access it to meet your needs: you cannot access credit to buy a house or to start a business, you are ineligible to open a bank account or cannot use the bank account that you do have for more than basic services. You have no formal access to savings. In short, the resources of the institutionalized financial system are beyond your reach.

Being unbanked means that you have little or no access to formal systems of finance. Without a bank account, often you cannot cash a check, transfer money to others, pay bills, build for the future, or save for retirement.⁷⁴ In order to do these things, you must actually pay. You pay a premium to go to a check cashing service, and you pay when you use the partner system.⁷⁵ In other words, you 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.”⁷⁶

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.”

⁶⁹ 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!” See Thomson, *supra* note 26, at 27.

⁷⁰ Elliott, *supra* note 21, at 8.

⁷¹ *Id.* (Elliott, *supra* note 21), at 14.

⁷² CommuScore, Digitising Trust, Prospectus, 4.

⁷³ Elliott, *supra* note 21, at 8.

⁷⁴ *Id.* (Elliott, *supra* note 21), at 9.

⁷⁵ Claremont Kirton, Unregulated Investment Schemes (UIS) in Jamaica: Recent Experiences, Problems and Prospects, [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.”

⁷⁶ Elliott, *supra* note 21, at 9.

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.⁷⁷ Still, in many countries, the gap between rich and poor is ever widening.⁷⁸

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's and the have-nots has been growing. Those of us who have should be concerned because too many people are living in conditions that are acceptable."⁷⁹

Although most (66.36%) Jamaicans *are* banked and do possess bank accounts, the numbers of the "underbanked" (have bank accounts but still have insufficient access to essential financial services) are startling: "Only 12 percent of the population own the types of accounts which allows them to transfer money, write cheques or make credit card payments,"⁸⁰ and "77.9% - 86% of adult Jamaicans have limited access to low cost and safe payments...".⁸¹ 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.*⁸²

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 then have an account open in your name moments later. Opening a bank account in Jamaica requires tenacity, a significant investment of time, and an iron will.⁸³

Upon an in-person inquiry regarding the process for opening an account at First Global Bank Limited in Kingston, one is presented with three forms, including a "Documentation Checklist- Personal Account," and two blank "Character Reference and Address Verification" Forms. The Documentation Checklist requires the following mandatory items in order to open an account:

⁷⁷ 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 6/1/2015, 5:24 p.m.

⁷⁸ Anthony Reuben, *Gap Between Rich and Poor 'Keeps Growing*, BBC NEWS, May 21, 2015, <http://www.bbc.com/news/business-32824770>.

⁷⁹ Jamaica Gleaner, *Rich Poor Gap a Cause for Concern*, JAMAICA GLEANER ONLINE, July 15, 2013, <http://jamaica-gleaner.com/gleaner/20130715/lead/lead5.html>. (Bowen cited specific "myriad challenges" such as high unemployment, high crime, "compromised" health care and "bureaucratic inefficiencies.")

⁸⁰ SFCLN, *Jamaicans Need Better Financial Access*, Dec. 30, 2011, SOUTH FLORIDA CARIBBEAN NEWS, <https://sfcln.com/jamaicans-need-better-financial-access-dawn-elliott/>.

⁸¹ Elliott, *supra* note 21, at 2; See also Mozida, Sept. 14, 2014: "Nearly 70% of Jamaica's population is underbanked." Also, Jamaica has "an estimated two million underbanked citizens."

⁸² SFCLN, *supra* note 80.

⁸³ This author, a Jamaican national by birth, decided that the effort required was not worth it.

- ✓ **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;**
- ✓ **Two reference letters;**⁸⁴
- ✓ **Verification of Address;**⁸⁵ 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 - \$10,000.⁸⁶

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 the income verification like the “last 3 Pay Slips”) and unable to produce the minimum amounts required for opening balances, or to produce the required identification or sufficient references. Identity verification has been cited as the number one reason why it is challenging to extend financial services to poor populations.⁸⁷ There are several reasons for this, including, but not limited to the fact that generally:

- 1) Low income people often lack formal identity documentation;
- 2) Many low income countries lack external, independently verified sources of data that could help id and verify customers, such as voter registration records or credit bureaus; and
- 3) National id cards are not universal and standardized.⁸⁸

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, decide to avoid the process altogether.⁸⁹

⁸⁴ 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.)

⁸⁵ This usually means utility bill or bank statement in your name.

⁸⁶ This list was taken verbatim and in its entirety from a form obtained from First Global Bank Ltd, www.firstglobal-bank.com. As of the date of publication, \$1USD is equal to \$128.47 Jamaican dollars (JMD).

⁸⁷ Thomas Abnell and Vangelis Tsianaxis, *AML/CFT: Balancing Regulation with Innovation*, 23 Jan 2015, CGAP, <http://www.cgap.org/blog/amlcft-balancing-regulation-innovation/>.

⁸⁸ Id (Abnell and Tsianaxis).

⁸⁹ Jamaica is in the process of rolling out a national identification system, which is intended to take effect in January 2018. See The Jamaica Observer, *National Id System to roll out 2018*, Oct. 10, 2016.

In fairness to the bank(s), they say that they have beefed up 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 which require that banks be familiar with the people transacting business with their institutions 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.⁹⁰ Bank executives also claim that when there are more lax standards, well-heeled persons can also 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.⁹¹ In this case, one can understand how banks reasonably justify their seemingly draconian entry requirements.

In the end, and regardless of the best of intentions, it is Jamaica that ultimately suffers, as overseas investors interested in starting businesses on the island may choose to find other places to store and use their money that have lower barriers to entry. The people of Jamaica also suffer because commercial banks dominate the marketplace in Jamaica: “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.”⁹² Just three banks own over eighty-five percent of the market in Jamaica.⁹³ What is the problem with a financial system in which banks predominate? 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 certain cultural reasons why many in Jamaica do not in fact trust banks, and therefore self-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; for 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.”⁹⁴ (More on those regulations in Part III.) If you do not have a

⁹⁰ In the “Lotto Scam,” criminals targeted elderly residents in Florida and somehow 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.

⁹¹ This is what law enforcement speculate may have happened with the missing billions that Carlos Hill, former head of the Cash Plus investment scheme, says is missing.

⁹² Elliott, *supra* note 21, at 10.

⁹³ Researching the Unbanked [___].

⁹⁴ Ignacio Mas, *Why is the Progress of Mobile Money So Gradual and Patchy?*, CGAP, 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.

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.⁹⁵

Having significant numbers of people who are underserved by the financial system is 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.”⁹⁶ If more people can participate in the financial system, the economy as a whole must benefit.

III. 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.*⁹⁷

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: “It is also known that many 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.”⁹⁸ Small business owners, entrepreneurs and the already “banked” have much to gain from new mobile, especially in Jamaica where there is an entrepreneurial hunger for increased efficiency and fewer bureaucratic barriers to wealth generating opportunities:

*[D]espite the euphoria over the unbanked, the 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.*⁹⁹

Many in Jamaica’s business community (and without) believe that conditions in Jamaica are ripe for the introduction and full-scale adoption of mobile financial services (“MFS”). 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

⁹⁵ Of course, credit unions do exist in Jamaica and as described above, may meet some part of this need.

⁹⁶ Elliott, *supra* note 21, at 9.

⁹⁷ Dr. Rosalea Hamilton, *Caribbean Development, the CSME and Women in Politics: The Connection*, 5th Rose Leon Memorial Lecture, Mar. 6, 2006 (prepared remarks) at 3.

⁹⁸ Tor Jansson, Ramon Rosales, and Glenn D. Westley, *Principles and Practices for Regulating and Supervising Microfinance*, 15, INTER-AMERICAN DEVELOPMENT BANK (2004).

⁹⁹ Elliott, *supra* note 21, at 8.

“8.76% and 5.8% respectively” over the past ten years.¹⁰⁰ Besides having a “well-established telecom[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.”¹⁰¹

Entrepreneurial hunger is also felt by female business owners: “Women make up 46 per cent of the Jamaican labour force, the highest per capita ratio in the world...”¹⁰² 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,¹⁰³ 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.¹⁰⁴ 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 cross the Caribbean so that it leads to more successful tech entrepreneurs, startups and increased job creation.”¹⁰⁵ Since their launch in 2007, Kingston BETA has “had over 80 events, 3,000 attendees and over 100 startups pitch their big ideas.”¹⁰⁶ 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, women,¹⁰⁷ business leaders of both genders, and the unbanked, will encourage the BOJ to further liberalize its course.

At one Kingston BETA meeting, attendees put the lone BOJ regulator in the room, Deputy Governor (“Gov.”) Livingstone Morrison, in the hot seat. Gov. Morrison participated in a panel discussion regarding mobile money,

¹⁰⁰ Winston Butler, *Getting Jamaica Ready for Mobile Financial Services*, MONA BUSINESS REVIEW, Mar. 20, 2011, <http://173.203.89.141/openpublish/article/getting-jamaicans.ready-mobile-financial-services>.

¹⁰¹ *Id.* (Butler, *Mona Business Review*).

¹⁰² Thomson, *supra* note 26 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.”).

¹⁰³ For more information on Kingston BETA (a bi-monthly meetup of Jamaica’s tech community that “kickstarted the Jamaican Startup Movement in 2007”), please see their website: <http://kingstonbeta.com>.

¹⁰⁴ 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.

¹⁰⁵ Kingston BETA, *supra* note 103.

¹⁰⁶ *Id.* (Kingston BETA, *supra* note 103.)

¹⁰⁷ UN General Assembly, Report of the Secretary-General, *World Survey on the Role of Women in Development*, 4, June 17, 2009, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N09/372/25/PDF/N0937225.pdf?OpenElement> (“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.”)

payment system reform, and opportunities for tech entrepreneurs.¹⁰⁸ The main focus of the discussion centered around how regulators should bridge the gap between regulation and technology. 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,”¹⁰⁹ were meant to strike a careful balance and address such questions, and had been posted on the Bank’s website since Feb 1, 2013.¹¹⁰

Several audience members expressed confusion and doubt about the guidelines. First, many could not tell how the guidelines would apply in certain situations. Second, 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 also 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,¹¹¹ “bureaucratic paralysis,” and a “behind the times” legal framework.¹¹² 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. Also, they stated that less regulation was needed, and not more. Several others pressed him with questions like: why was it so much easier to open a bank account and do business in America? What incentive did young and eager entrepreneurs have to stay and do business in Jamaica when the environment was so much friendlier for business activity in Miami, New York or Silicon Valley?

¹⁰⁸ 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 Bank of Jamaica, National Payment System: JamClear-RTGS Payment Rules, Kingston, Jamaica, June 2014, available at <http://boj.org.jm/pdf/RTGS%20Rules.pdf>.

¹⁰⁹ See Bank of Jamaica, *Guidelines for Electronic Retail Payment Services*, 2, Feb. 1, 2013 (“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.”).

¹¹⁰ 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 appear imminent or threatens the soundness of the financial system.” One relevant statute is the Payments Clearing and Settlement Act (PCSA) of 2010. See Bank of Jamaica, Legislation, available at http://www.boj.org.jm/financial_sys/supervised_legislation.php.

¹¹¹ 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?”

¹¹² Per another audience comment: “The laws on the books haven’t changed since 1857!”

That night, Lloyd Laing, an entrepreneur who develops music technology,¹¹³ spoke eloquently and at length about the growth of Bitcoin and decentralized electronic currencies. The decreasing significance of cash and increasing relevance of electronic currencies is just one more reason to investigate and support digital finance. Other questions that solicited interest and heavy commentary in the room were: “*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.*”¹¹⁴ The overwhelming sentiment in the room was that financial innovation requires an acceptance of a higher degree of risk than the BOJ, at least for the time being, felt comfortable tolerating.

The good news is that mobile money and other financial innovations are in fact already being rolled out in Jamaica.¹¹⁵ First, despite having little incentive to do so, the three big banks, Scotiabank, NCB, and First Caribbean, have been rolling out mobile money products.¹¹⁶ In this regard, their actions demonstrate “unequivocally that there is a strong commercial interest in these opportunities.”¹¹⁷ Second, 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, 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 2014.¹¹⁸ Third, the BOJ has fully supported the rollout of the JCUES mobile wallet pilot program.¹¹⁹

The platform is cloud-based, 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.”¹²⁰ 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 bet-

¹¹³ Xavier Murphy, A Conversation with Jamaican Entrepreneur, Lloyd Laing on the Future of Music Technology [Interview], <http://jamaicans.com/jamaican-entrepreneur-lloyd-laing/> (last accessed Sept. 30, 2017).

¹¹⁴ 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.

¹¹⁵ Financial Services Commission (FSC), Compass, *The Importance of Financial Sector Regulation*, Vol. 6, Issue 4, October - December 2013.

¹¹⁶ It is the position in this paper that any approach to digital finance should be comprehensive rather than piece-meal.

¹¹⁷ Edwards, *supra* note 143.

¹¹⁸ 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>.

¹¹⁹ *Id.* (MoziDo): “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.”

¹²⁰ *Id.* (MoziDo, *supra* note 118).

ter reach their consumers and inspire loyalty.¹²¹

PART II

IV. Tech Innovation in the Developing World

*A Mobile Financial System leads to greater economic transparency, lower transaction costs, employment and small business opportunities and increases in GDP.*¹²²

Cases abound where developing countries have used mobile phones to deliver essential products and services, and will be discussed in detail below. Some feel strongly that banking technology (or regulation) should not be frozen at today's levels because mobile banking is "the future of banking."¹²³ 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 remittances.¹²⁴ 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.¹²⁵

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,"¹²⁶ 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 changes 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

¹²¹ *Id.* (Mozido, *supra* note 118).

¹²² Elliott, *supra* note 21, at 8.

¹²³ Lloyd Gedeye, *Cellphone Banking Needs Laws*, MAIL & GUARDIAN, Dec. 7, 2012, <https://mg.co.za/article/2012-12-07-cellphone-banking-needs-laws>.

¹²⁴ Elliott, *supra* note 21, at 7 (Currently "Asians [are] dominating the share of mobile payments users—63 of 109 million.").

¹²⁵ Elliott, *supra* note 21, at 19.

¹²⁶ Evans and Pirchio, *supra* note 23, at 6.

*most growth in poor countries with previously low levels of phone penetration.*¹²⁷

Specifically, it has been shown that “adding ten phones per 100 people adds 0.6 percent to the GDP.”¹²⁸ The spread of mobile phones in developing countries creates wealth for those living in rural areas and increases national income as well.¹²⁹

One study examined twenty-two (22) countries where mobile financial systems: (1) successfully “ignited with explosive growth;” (2) had “weak ignition;” (3) “failed to ignite;” and (4) where it is “too soon to assess.”¹³⁰ First, we will begin with the successes.

V. Countries with Explosive Growth of Mobile Money

There were eight (8) countries listed in the study who launched extremely successful mobile financial systems, including:

- 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);¹³¹
- 6) Tanzania (pop. 57,757,624);
- 7) Uganda (pop. 43,216,412); and
- 8) Zimbabwe (pop. 16,626,505).¹³²

Here, we will focus on the most famous of the eight—the launch of M-PESA in Kenya. Just three years after its launch, 9.5 million users had signed up.¹³³ More than 12 million Kenyans use the service, and an additional six million utilize competing mobile products.¹³⁴ It has been suggested that Kenya’s light

¹²⁷ See Lumsden, *supra* note 5 (citing Sullivan, at 149).

¹²⁸ *Id.* (Sullivan, *supra* note 27, at xxxiv (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.).

¹²⁹ *Id.* (Vamosi, at 145) (“as 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. & POLICY 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.”).

¹³⁰ Evans and Pirchio, *supra* note 23, at 4.

¹³¹ 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 BBC News, *Somaliland Profile*, May 26, 2016, <http://www.bbc.com/news/world-africa-14115069>.

¹³² *Id.* (Evans and Pirchio, *supra* note 23, at 4 (Table 1)). Live population statistics acquired from Worldometers (available at <http://www.worldometers.info/world-population/uganda-population>, and last accessed on Sept. 30, 2017) and 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.

¹³³ Gedeye, *supra* note 123.

¹³⁴ *Id.* (Gedeye, *supra* note 123).

regulatory model and strategy of coordinating with its existing banks was the reason for this success:

*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.*¹³⁵

The major benefit of implementing a MFC is that such a system lowers direct and opportunity costs of conducting financial transactions; higher costs are associated with traditional banking architecture, where certain privileges and services are tied to having an account.¹³⁶

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.¹³⁷ 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: “... in 16 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.”¹³⁸

Another interesting lesson from Kenya is that Kenyans also use M-PESA to save, and not just for remittances.¹³⁹ 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.

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

¹³⁵ Evans and Pirchio, *supra* note 23, at 21.

¹³⁶ Elliott, *supra* note 21, at 22.

¹³⁷ *Id.* (Elliott, *supra* note 21, at 22).

¹³⁸ *Id.* (emphasis added).

¹³⁹ *Id.* (Elliott, *supra* note 21), at 20.

There were three (3) countries that launched mobile financial systems that have experienced weak growth, including:

- 1) Ghana;
- 2) The Philippines; and
- 3) Pakistan.

There were eight (8) countries that launched mobile financial systems that failed to take off, including:

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

Of the listed countries, mobile money failed to ignite in countries that adopted a heavy-handed approach to regulation. Seven of the eight countries 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.¹⁴⁰

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,¹⁴¹ the Bill and Melinda Gates Foundation established a \$10 million fund to create a mobile financial system in Haiti.¹⁴² 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."¹⁴³

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.¹⁴⁴ Per Castel: "We put the entire responsibil-

¹⁴⁰ Evans and Pirchio, *supra* note 23, at 4.

¹⁴¹ 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>

¹⁴² BBC News (Technology), Bill Gates Offers \$10m fund for mobile banking in Haiti, June 9, 2010, <http://www.bbc.com/news/10273158>

¹⁴³ Al Edwards, *Drumbeat Grows for Mobile Banking in the Caribbean*, JAMAICAN OBSERVER, Fri., Feb. 11, 2011, <http://www.jamaicanobserver.com/pfuersion/drumbeat-grows-for-mob>.

¹⁴⁴ *Id.* (Edwards.)

ity 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.”¹⁴⁵

Unfortunately, despite promising early numbers, the number of active users of the mobile system in Haiti has been underwhelming. It is possible that Haiti’s mobile money failed to ignite due to this bank-based structure. Often, a bank-based structure does not allow for the participation of non-bank actors. In contrast, in Kenya, there is a widespread network of non-bank agents who are authorized to conduct transactions.¹⁴⁶ Haiti apparently chose the bank-led model because Mexico, which had a similarly large remittance business, and other countries had done so already.¹⁴⁷ As a result, Haiti did not have to reinvent the wheel.¹⁴⁸

Per Castel, like Haiti, Jamaica also has a “significant remittance component which has proven to be a mainstay of both economies.”¹⁴⁹ Haiti’s failure to ignite is likely also be due to the fact that scaling up was difficult due to the country’s small size. With a population of 50 million,¹⁵⁰ Kenya is approximately five times the size of Haiti, and this factor likely contributed to the success of digital finance in the country because of the greater need and more people willing to take a chance. In Kenya was much easier due to its huge size. If this is the case, then it is likely that Jamaica, with a population of just under 3 million, would have similar (or worse) problems with scalability.

Similarly in South Africa, mobile money looked very promising at the start: one million users signed up shortly after its initial launch, and users with even the most basic of handsets were able to utilize mobile financial services due to the widespread distribution of their agent network.¹⁵¹ 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), and “allows 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.”¹⁵² However only a small percentage of those consumers were active users of the services. There could be many reasons for this, but chief among them may be the fact that South Africa has

¹⁴⁵ *Id.* (Edwards.)

¹⁴⁶ 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 Edwards, *supra* note 143.

¹⁴⁷ See Edwards, *supra* note 143.

¹⁴⁸ *Id.* (Edwards, *supra* note 143).

¹⁴⁹ *Id.* (Edwards, *supra* note 143).

¹⁵⁰ Numbers as of 2017, available at <http://www.worldometers.info/world-population/kenya-population/>.

¹⁵¹ Gedeye, *supra* note 123.

¹⁵² Gedeye, *supra* note 123. Notably, MTN has recently (2016) given up on its mobile money services in South Africa “due to a lack of commercial viability.” See <https://qz.com/783230/mtn-has-cancelled-its-mobile-money-service-in-south-africa-but-will-continue-to-move-into-financial-services-in-africa/>.

very strict banking regulations, including those specifically tied to mobile services.

There were two (2) countries listed in the study who launched mobile money schemes that the authors determined that it was too soon to draw any meaningful conclusions, including:

- 1) The 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 the verdict is not yet in regarding 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

VII. Scandals and Financial Crime

The 1990s Financial Sector crisis in Jamaica cost the country 40% of our GDP.”¹⁵³

Fraud and financial crime are not unique to Jamaica or the developing world, but they do jeopardize the overall stability of banking industries. In 1992, Bernie Madoff created a major Ponzi scheme that left many Americans reeling when it collapsed in 2008.¹⁵⁴ The scandal also led to the creation of more regulation in the financial sector, including the “Dodd Frank,” or Wall Street Reform and Consumer Protection Act, and increased calls for greater transparency.¹⁵⁵ Similarly, starting 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. There were eight (8) major pyramid schemes in Jamaica that started in 2000 and collapsed in 2001.¹⁵⁶

Many Jamaicans were misled by the use of the word, “partner” (as described in more detail below) in the name of the schemes; this was a deliberate attempt by the schemes to encourage Jamaicans long familiar with partners to

¹⁵³ FSC, supra note 115.

¹⁵⁴ Kirton, supra note 75, at 9 (-13).

¹⁵⁵ Some say the Madoff scandal also contributed to the financial crisis. See TIME MAGAZINE, 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 accessed Sept. 30, 2017).

¹⁵⁶ Kirton, supra note 75, at 21.

put their full trust in these new ventures.¹⁵⁷ 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.¹⁵⁸

In 2006 and beyond, there were at least an additional four (4) scandals—the names of which virtually all Jamaicans are familiar, including: (1) OLINT; (2) Cash Plus; (3) Worldwide Limited; and (4) Swiss Cash.¹⁵⁹ Of the four, two—OLINT and Swiss Cash—especially tested the risk tolerance of many Jamaicans. (The more “Lotto Scam” affected more Americans than Jamaicans, but it still stirred an immediate response by the Government of Jamaica.)¹⁶⁰

Overseas Locket International Corporation originally registered in Panama and 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 for breach of Section 26 of the Securities Act.¹⁶¹ Swiss Cash (also known as Swiss Mutual Fund) was started in 1948 in Dominica and was originally intended for Dominican citizens. Although they 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 customer’s money and the organization itself.¹⁶²

The one thing that these crimes had in common is that they were either unregulated investment schemes that attracted customers “by offering unusually higher than market interest rates as short term returns,”¹⁶³ or reeled trusting Jamaicans who possibly saw them as the only way out of 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.”¹⁶⁴ The government had to intervene in the wake of the collapse of all of these schemes, and the economy took some time to recover.

If there is regulatory caution by banks and the BOJ, there is certainly good reason. Jamaicans who were taken in by these schemes lost everything: “Poten-

¹⁵⁷ Id (Kirton, *supra* note 75), at 19.

¹⁵⁸ Id (Kirton, *supra* note 75), at 16.

¹⁵⁹ Id (Kirton, *supra* note 75), at 16.

¹⁶⁰ 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].

¹⁶¹ Kirton, *supra* note 75, at 28.

¹⁶² Id (Kirton, *supra* note 75), at 31.

¹⁶³ Id (Kirton, *supra* note 75), at 3.

¹⁶⁴ Id (Kirton, *supra* note 75), at 3.

tial depositors sold various personal assets including their homes, cars and consumer durables.”¹⁶⁵ These prominent scandals in Jamaica in the 1990s, and another major one in 2013, show that financial crime is on the rise.¹⁶⁶ Consequently, the Jamaican government cannot be faulted for putting in place stringent barriers to such crime as it poses a very real threat to the financial stability and integrity of both developing and developed markets. Jamaica does not just have to worry about its own internal laws, but is also beholden to increasing international pressure to comply with stringent requirements for regulations aimed at combating money laundering (“AML”) and the financing of terrorism (“CFT”).¹⁶⁷ One major outcome is that cumulatively, these scandals have increased skepticism and distrust in the country towards new “schemes” or organizations that promise great rewards.

VIII. Regulatory Challenges

Attempting to regulate the banking and financial sector in Jamaica poses unique problems for regulators who are faced with a huge informal sector that is part and parcel of Jamaican life. On the other hand, some say that it is the lack of sufficient regulation is the reason why 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.”¹⁶⁸

In many developing countries, rural financial markets are buoyed by both legal and nonlegal transactions.¹⁶⁹ Jamaica is not the exception to this rule, and part of the reason for the non, or extra-legal transactions is the fact that, “commercial banks only serve only ten to twenty percent of the population, excluding eighty to ninety percent of the population from the formal financial section.”¹⁷⁰ The problem with leaving poverty unaddressed is that people will struggle to make ends meet however they can, regardless of whether or not the sources of income are “under the table” or not.¹⁷¹

¹⁶⁵ *Id* (Kirton, *supra* note 75), at 24.

¹⁶⁶ Per M. Linton [Interview], cybercrimes “amass \$1 trillion worldwide and have overtaken drugs.”

¹⁶⁷ Abnell and Tsianaxis, *supra* note 87.

¹⁶⁸ VICTOR TOKMAN AND EMILIO KLEIN, REGULATION AND THE INFORMAL ECONOMY: MICROENTERPRISES IN CHILE, ECUADOR AND JAMAICA, 1, 1996 (discussing microenterprises in Chile, Ecuador and Jamaica).

¹⁶⁹ Heywood W. Fleisig and Nuria de la Peña, *Legal and Regulatory Requirements for Effective Rural Financial Matters 1* (Ctr. For the Econ. Analysis of Law 2003).

¹⁷⁰ Ian Davis, *Rural Banking: Designing an Effective Legal Framework for Microfinance* (citing Marguerite S. Robinson, *The Microfinance Revolution: Sustainable Finance for the Poor 6* (WORLD BANK 2001)).

¹⁷¹ Thomson, *supra* note 26, 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.”

In the arena of digital finance, there are two important types of regulation—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 in order to protect consumers.¹⁷² In Jamaica, the BOJ is concerned with both prudential and non-prudential regulation when it comes to an introduction of 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.¹⁷³

The law that is most relevant to digital or mobile finance in Jamaica is the Payment Clearing & Settlements Act of 2010 (the “Payments Act”).¹⁷⁴ Professor Michael Witter of the Sir Arthur Lewis Institute of Social Economic Studies has suggested that 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.” 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 and the use of agents.”¹⁷⁵ The issue of interoperability and the regulation of agents is the conundrum 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. Or, at least they are perceived to be not as risky as the prospect of allowing agents or telecom providers, or participants outside the pre-existing banking sphere, to have unfettered access to consumers.

There is significant resistance on the part of 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 Bank of Jamaica’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 stay in their own lane. Professor Witter states that there is, however, a need for the legal system to embrace mobile so that banks, tech

¹⁷² Robert C. Vogel and Gerald Schulz, *Financial Regulation in the English-Speaking Caribbean: Is it Helping or Hindering Microfinance?*, COMPETE CARIBBEAN, INTER-AMERICAN DEVELOPMENT BANK, Nov. 2011, at iv (Executive Summary).

¹⁷³ FSC, *supra* note 115.

¹⁷⁴ 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).

¹⁷⁵ In-person Interview conducted with Michael Witter at the Lewis Institute of Social and Economic Studies at the University of the West Indies, Mona Campus in Kingston, Jamaica on Tues., Apr. 9, 2013.

and/or telecom companies will work together for the greater good of the country.¹⁷⁶

Again, 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.¹⁷⁷

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.”¹⁷⁸ According to Gov. Morrison, all non-bank service providers need to seek permission from the BOJ before commencing any operations in Jamaica.¹⁷⁹ 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.

Although 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), this regulatory stance may be overly limiting and bodes ill for the successful launch of a comprehensive mobile financial system in Jamaica.

IX. 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.*¹⁸⁰

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?

¹⁷⁶ Per Robin Sykes, General Counsel with the Bank of Jamaica, the Financial Services Commission (“FINSAT”) and the Jamaica Deposit Insurance Corporation (“JDIC”) regulate non-deposit taking institutions.

¹⁷⁷ Interview conducted with Livingstone Morrison, Deputy Governor of the Bank of Jamaica for Finance and Tech Development at BOJ headquarters in Kingston, Jamaica on May 22, 2013 at 2:30 p.m.; See also FSC, *supra* note 115: The intervention of the Jamaican government meant that Jamaica largely escaped the 2008 global financial crisis unscathed.

¹⁷⁸ Panel presentation at Kingston BETA event, 25 April at 6:30 p.m., JAMPRO. Per Gov. Morrison, 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.

¹⁷⁹ Interview with Gov. Morrison, *supra* note 177. During our meeting, this 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.

¹⁸⁰ Rosalea Hamilton, 5th Memorial Lecture, at 2.

Although the wider world knows Jamaica as “a very small, Afro-British country, where tourism, trade, and services predominate,”¹⁸¹ life on the island is more complex than it might otherwise seem. First, despite its small size, Jamaica has much to recommend it, including: “a strong democracy, high caliber bureaucracy and good regulatory framework.”¹⁸² Also, as stated above, there are just under 3 million people currently living in Jamaica, including 1.2 million who are “economically active.”¹⁸³ The term ‘economically active’ encompasses both those who are employed in traditional jobs and those who hold some form of informal employment outside of agriculture.¹⁸⁴ 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.*¹⁸⁵

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.”¹⁸⁶ 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,¹⁸⁷ (and as documented above in Part V, 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%.¹⁸⁸ Also, productivity is low, as “about 75% of our labour force has no training or certification.”¹⁸⁹ In

¹⁸¹ Tokman & Klein, *supra* note 168, at 3.

¹⁸² World Bank, *supra* note 64 at 3.

¹⁸³ *Id.* (Tokman & Klein, *supra* note 168, at 3 (Fast Facts, Country Specifics)).

¹⁸⁴ *Id.* (Tokman & Klein, *supra* note 168, at 3 (Fast Facts, Country Specifics)).

¹⁸⁵ Rosalea Hamilton, 5th Rose Memorial Lecture, at 2 (citing Nobel Laureate, Sir Arthur Lewis).

¹⁸⁶ Peter Svensson, Digital ‘Wallets’ Proliferate at Cellphone Show, ASSOCIATED PRESS, May 10, 2012 (citing Gary Flood, MasterCard’s president of global products and solutions), <http://news.yahoo.com/digital-wallets-proliferate-cellphone-show-215032239--finance.html>.

¹⁸⁷ 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.”).

¹⁸⁸ Hamilton, *supra* note 185, at 2.

¹⁸⁹ *Id.* (Rosalea Hamilton, *supra* note 185, at 2).

2017, it is estimated that the gross national product was \$5,119.50 (USD) per inhabitant,¹⁹⁰ and the minimum wage was \$51 (USD) per month.¹⁹¹

In the past, Jamaica has been rated by the World Bank as having a top climate for starting a business. In 2017, the numbers still seem quite good—the small island ranks 12th out of 190 countries; it also ranks 67th out of 190 countries for ease of doing business overall.¹⁹² Nevertheless, there is still much work to be done. 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.”¹⁹³ Others note that there are “asymmetrical credit relations” in Jamaica.¹⁹⁴ The barriers to credit are significant, but exist on both sides: on the one hand, as mentioned above, banks have standards which few small business owners can meet; on the other, many small business owners do not even request credit at all.¹⁹⁵

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.*¹⁹⁶

¹⁹⁰ See Global Finance Magazine. Available at: www.gfmag.com/global-data/jamaica-gdp-country-report.

¹⁹¹ Denise Clarke, *What is the Minimum Wage in Jamaica?*, RUJ, www.rateurjamaica.com/jamaica-facts--info/what-is-the-minimum-wage-in-jamaica (updated as of March 2016).

¹⁹² See Global Finance Magazine. Available at: www.gfmag.com/global-data/jamaica-gdp-country-report.

¹⁹³ Breakfast Meeting with Professor Rosalea Hamilton, and leaders of a women's group at the UTCWI, Tuesday, April 16, 2013. Professor Rosalea Hamilton, PhD, is also the Vice President, Development at the University of Technology, Jamaica and Founder and Director of the Institute of Law & Economics. 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.

¹⁹⁴ Tokman & Klein, *supra* note 168 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—either from banking institutions loaning them start-up costs or from suppliers providing essential goods; however, they face inadequate support from formal institutions (who may not want to lend without sufficient evidence of success). On the flip 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.

¹⁹⁵ Tokman & Klein, *supra* note 168, at 25.

¹⁹⁶ Interview conducted in 2013.

She stressed important developments happening at the World Trade Organization, and the importance of Jamaicans understanding trade rules. From her perspective, the 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 understanding 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. To those assembled in the room that day, she urged them “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 one workshop illustrate many issues echoed by other scholars on the island. These issues 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.¹⁹⁷ 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.¹⁹⁸ One question is not just whether there is the institutional will for mobile money, but whether in addition, there is or would be popular interest and willingness to try out something that goes 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.¹⁹⁹ Among many people in Jamaica, there is a perception that new businesses need to have political connections to obtain important contracts needed to survive.²⁰⁰ Also, politics and crime seem inextricably linked on the island

¹⁹⁷ Tokman & Klein, *supra* note 168, at 20, 25 (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.

¹⁹⁸ Tokman & Klein, *supra* note 168, at 20.

¹⁹⁹ See Harriott, *supra* note 36, 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.”).

²⁰⁰ Tokman & Klein, *supra* note 168, at 22 (Table 2.10 on page 23). In Jamaica, only seven percent (7%) of new enterprises receive such contracts.

as political parties supply guns to their supporters to bolster their position within inner-city communities. The levels of crime on the island may lead many young residents to question whether life is even worth living.²⁰¹ 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, such violence often impedes economic growth.²⁰²

PART IV

X. 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 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.²⁰³

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. Emerging technologies involve risks that 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.²⁰⁴ It should be

²⁰¹ Thomson, *supra* note 26, 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.”

²⁰² See OECD, *Beyond the Millennium Development Goals: Towards an OECD Contribution to the Post-2015 Agenda*, 14, available at <https://www.oecd.org/dac/POST-2015%20Overview%20Paper.pdf>.

²⁰³ Thomson, *supra* note 26, at 32.

²⁰⁴ Mozido, 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>.

to 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 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 it is true that 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,”²⁰⁵ 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. Involve the population, and better yet, involve other populations who are similarly hungry in the Caribbean. Compete Caribbean is just one example of such a push. Jamaica does not need to confront these challenges alone. Added together, there are 6,810,884 people living within CARICOM nations, and 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.”²⁰⁶ 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.

XI. 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.*²⁰⁷

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.

²⁰⁵ Hamilton, *supra* note 185, at 3.

²⁰⁶ *Id.*

²⁰⁷ C.L.R. James, *The Birth of a Nation*, (Excerpted from ‘Contemporary Caribbean -A Sociological Reader, ed. by Susan Craig, 1981).

3. The government of Jamaica should establish a central regulatory body, similar to the Consumer Financial Protection Bureau in the United States, that coordinates regulatory actions 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 (which are currently prohibited for non-banks in Jamaica). Interoperability is essential.
5. Any mobile financial framework needs to reconcile, and 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.
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 cannot by themselves 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. Attention must be paid to 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.

How do you convince an entire country to move beyond a traditional reliance on cash? The first step is to emphasize something that everyone 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.²⁰⁸ 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,”²⁰⁹ is emerging as a stable and intriguing concept that is well worth continuing observation and analysis:

*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.*²¹⁰

And yet there are real dangers involved with Bitcoin and other so-called “crypto-currencies” 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.”²¹¹ 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,²¹² it seems that Bitcoin is probably not the best answer.

One thing seems clear, and that is that further research is needed on this topic. 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. As it is already a member of a larger economic and business-minded community, Jamaica is uniquely poised to reap the advantages of an open mind to new possibilities. 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.

²⁰⁸ Peter Svensson, *Digital ‘Wallets’ Proliferate at Cellphone Show*, ASSOCIATED PRESS, May 10, 2012 (citing Gary Flood, MasterCard’s president of global products and solutions) Available at: <http://news.yahoo.com/digital-wallets-proliferate-cellphone-show-215032239--finance.html>.

²⁰⁹ <http://venturebeat.com/2014/02/17/bitcoin-for-idiots-an-introductory-guide/>.

²¹⁰ <http://venturebeat.com/2014/02/17/bitcoin-for-idiots-an-introductory-guide/>.

²¹¹ <http://www.marketwatch.com/story/10-things-bitcoin-wont-tell-you-2014-07-25?page=5>.

²¹² Hacker attacks and a “software glitch” caused Mt. Gox, a Bitcoin exchange to lose \$400 million worth of bitcoins. <http://www.marketwatch.com/story/10-things-bitcoin-wont-tell-you-2014-07-25?page=6>.