Digital Currency - Extending the Payments System Modernisation Initiative

1st March, 2018

Extended Version of Governor John Rolle's Remarks at the Blockchain Seminar

Introduction

The Central Bank has taken an active role in promoting the modernisation of the payment systems in The Bahamas. In this regard, preserving and expanding universal access to the regulated payments sector has become more challenging, given recent domestic and international pressures that have adversely impacted the commercial banking infrastructure. In parallel, with the adoption of new technology to enable greater use of electronic payments, the commercial banks' branch network in The Bahamas has decreased, owing to operating cost pressures and compressed returns on weaker credit portfolios.[1] Moreover, where over-the-counter access remains in reach, the anti-money laundering (AML) systems and counter financing of terrorism (CFT) regulations have made it difficult for some segments of the population to establish deposit accounts. Such accounts are still at the foundation of the domestic payments infrastructure.

More inclusive access to payments and other financial services, is important for The Bahamas. The archipelagic structure of the country, added to a small total population, underline the need to accelerate the adoption of technology that reduces cost and ease of access. Modernisation, however, must preserve and strengthen safeguards against criminal abuse of the financial system.

It is the Central Bank's intention, working with key stakeholders in the public and private sectors, to promote further modernisation of the domestic financial services sector, such that access is unimpeded, particularly in the remote, less developed Family Islands, with participation—irrespective of size—enabled across all pockets of domestic commercial activities and actors. The Bank envisions an accelerated shift towards the use of electronic payments, with a concurrent reduction in cash transactions. This would be facilitated in part, by a digital version of the Bahamian dollar, appropriately further evolved regulatory systems, and inter-operability among new channels for the provision of payments services. It is anticipated that a piloted version of a digital domestic currency would be in circulation

[1] Anecdotal evidence suggests that concerns over the physical banking infrastructure in the Family Islands relate primarily to the loss of deposit and check cashing services, essentially payments system support.

within 24 to 30 months. An essential precursor infrastructure, is hoped to be the introduction of a digital identification system, piloted for use within the financial services sector. An evolved domestic payment infrastructure should also introduce negligible cost frictions for the retail originators of payments.[2]

This note provides an overview of the domestic payments system, including some recent trends in the regulatory space. An outline of key elements of the Central Bank's plan for further evolution of the system and infrastructure to promote financial inclusion, is then discussed.

Evolution of the Legal and Operational Environment

While the Central Bank's overarching responsibilities for the efficiency and soundness of the national payments system are provided under the Central Bank of The Bahamas Act 2000, it is the Payments System Act (PSA) 2012, that outlines the full scope of regulatory and supervisory authority for payments. The PSA empowers the Bank to develop appropriate regulations, standards and codes to facilitate the payments system's development. Within this context, the Bank introduced the Payments Instruments Oversight Regulations, 2017, to provide a framework for electronic payments services. The regulations apply best international standards for the provision of local payments services and are sufficiently broad to cover all stored-value Bahamian dollar electronic payments, including crypto currencies.[3]

Ensuring that permanent resources were dedicated to payments oversight and policy formulation support, the Central Bank established a Payments Policy and Oversight Unit (the Payments Unit), in June 2011, within the Research Department. The Unit's responsibilities include reviewing and processing applications from parties wishing to establish, operate or participate in the payments system in The Bahamas, and analyzing the systemic properties of the critical payments system infrastructure (existing and proposed) for vulnerabilities to financial and operational risks and for institutional risks to the efficient production, delivery and use of systemically important payment services.

The legal framework for domestic payments has evolved at intervals, which involved strategic engagement with stakeholders in both the public and private sector. In particular, the Bank embarked on a comprehensive modernisation plan under its broader statutory mandate in the late 1990s, when it commissioned a study to identify the available options for the country and to assist with the initial formulation of a strategy. In 1999, technical assistance from the World Bank further advanced this effort and led, in 2002, to

[2] Survey data indicate that the public's sensitivity to what they consider as high bank and government fees has resulted in the heightened dialogue in the regulatory and private sphere on quality service and innovative products and services.

[3] Some securities or commodities features introduce non-payments elements to crypto currencies. Although these would fall outside the Central Bank's regulatory scope, any overlapping element of payments would be subject to the 2017 Oversight Regulations. In the case of non-B$ instruments conversion into and out of B$ would be governed, but not prohibited, by Exchange Control Regulations, likely involving an intermediary foreign currency. The Securities Commission of The Bahamas would reserve the right to supervise any non-payments aspect of crypto currency operations domiciled in The Bahamas.

engagement of an external consultancy[4] to coordinate the implementation process for the Payments System Modernization Initiative (PSMI).

In May 2004, the Central Bank completed Phase 1 of the PSMI, with the launch of the Bahamas Interbank Settlement System (of BISS), a real time gross settlement (RTGS) system. Owned and operated by the Bank, the BISS is an electronic funds transfer system that allows the Clearing Banks to transmit and settle large value,[5] time critical payments among each other. The BISS introduced a modern and efficient inter-bank payment system, with payments having a final and irrevocable character, with risks commonly associated with manual or delayed clearance and settlement virtually eliminated.

The second phase of the PSMI was completed in January 2010, with the establishment of an Automated Clearing House (ACH). The ACH is operated by the Bahamas Automated Clearing House Limited (BACH), and is jointly owned by the Clearing Banks. BACH is subject to the regulation of the Central Bank, providing electronic settlement for small value payments of less than B$150,000.00. The ACH replaced the manual cheque processing between the clearing banks and in its first year, also started to process direct credits.

To provide the necessary focus to all issues related to the PSMI, the National Payments Council was informally established in May 2003 to oversee the development and maintenance of a national payment system strategy for The Bahamas. Later, the Payment Systems Act, 2012 ("the PSA") formally established the National Payments Committee (NPC), to act as an advisory body to the Central Bank on the implementation of the national payment system policy for The Bahamas.

Members of the NPC include:

(a) the Central Bank, whose representative also acts as Chairman;
(b) the Clearing Banks;
(c) other Government bodies or large entities regulating or in any other ways involved in payments activities and the financial markets[6]; and
(d) major financial institutions, or their national associations, that are key participants in payment systems.[7]

As the scope of payments activities broadens, membership in the NPC may also expand to other relevant stakeholders.

Payments System Structure and Trends

The domestic payment services providers include commercial banks, credit unions and money transmission businesses (MTBs). Although none yet exist, an additional provider class is the "payments institution", licensed under criteria established in the Payments

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[4] Then, the Bank engaged the UK based firm, Electronic Payments & Commerce Limited.

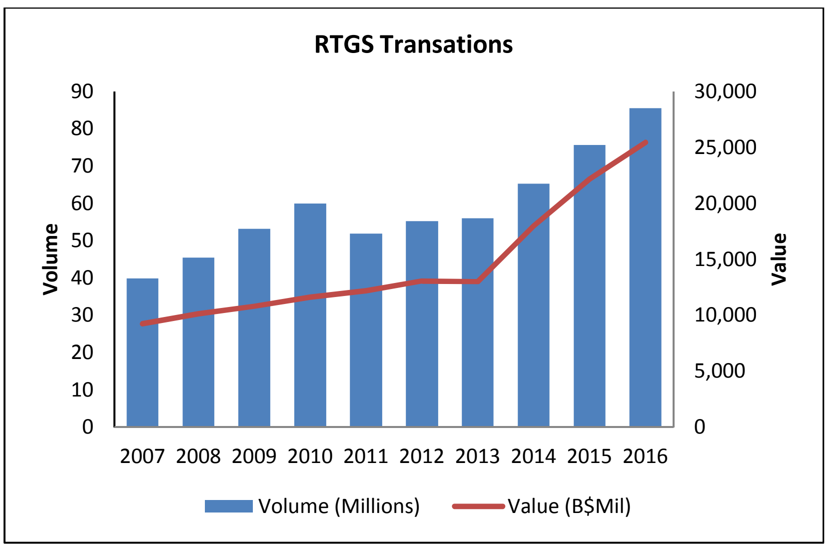
[5] The value of the payments currently settled in BISS are ordinarily B$150,000 or above, but lower value payments can also be processed.

[6] These are the Public Treasury, National Insurance Board, Bahamas Power and Light Company and Bahamas Telecommunications Company, Cable Bahamas Limited and the Water and Sewerage Corporation.

[7] The Bahamas Automated Clearing House, select Credit Union representatives, MTBs, the Bahamas Chamber of Commerce, BISX,

Instruments Oversight Regulations, 2017. For commercial banks, which dominate the landscape, the range of relevant products offered encompasses deposit accounts, electronic funds transfers (retail and wholesale) and credit and debit card services. Banks also deploy an extensive network of 74 branches and 393 automated banking machines. The ATM network is continuing to expand—now at 393 compared to 217 in 2012; however, the branch footprint is shrinking, with the impact most felt in the Family Islands.[8] In terms of types and delivery modes, services provided by the current 10 credit unions mirror those of banks, albeit some payment settlements involve intermediation through commercial banks. For MTBs, which number 5, stored value products are not yet prominent, but interest in expansion along such lines is being widely pursued. The MTB network is now extensive with the combination of 50 branches and agencies providing an expanding reach in both New Providence and the Family Islands.

For non-commercial banks, an important consideration going forward will be how access to the payments settlements infrastructure is determined, when it is required. Direct clearing of transactions is still not possible for these entities. The Central Bank intends to take a progressive stance, particularly as it relates to maintaining clearing balances at the Central Bank and, if necessary, for interoperability concerns. Rules around direct participation in the ACH also merit review, subject to appropriate consultation with commercial banks.



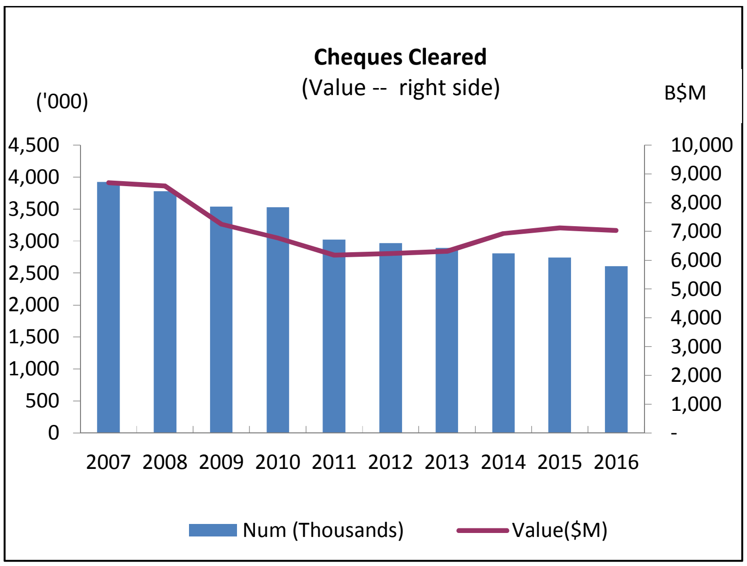
Source: Central Bank of The Bahamas

While physical cash use still dominates the payments space, shifts in payments continue to be towards electronic modes, with both cash and check use declining steadily in recent years, in favour of increased point-of-sales use of credit and debit cards, and growing reliance on electronic funds transfers. Inevitably, flows clear through the RTGS or the retail BACH, with both now accommodating steadily increasing transactions volumes and values.

[8] Presently commercial banks operate 32 branches throughout Grand Bahama and the Family Islands- Andros, Abaco, Bimini, Cat Island, Eleuthera, Exuma, Grand Bahama, Long Island, San Salvador, Inagua. This compares to a footprint of 36 in 2011. Branches do not exist in Acklins, Berry Island, Crooked Island, Mayaguana, Ragged Island and Rum Cay.

For the RTGS system[9], the volume of wholesale transactions rose by 13.0% to 85,504 items in 2016, reflecting a continuous uptick since a small ebb in in 2010, and having more than doubled overall since 2007. The associated value of these transactions firmed by 14.9% to $25.5 billion in 2016—also more than doubled over the decade.

Transactions through the ACH include checks, and electronic payments (such as salaries) in the format prescribed by the US' National Automated Clearing House Association (NACHA). Check usage has been on a downward trajectory throughout the last decade, even though it remains the most dominant method of non-cash payment.[10] In 2014, the volume of checks processed by the BACH was reduced by 2.9% to 2.8 million, even though the corresponding value rose by 9.7% to $6.9 billion. Processed instruments fell again in 2015, by 2.3% to 2.7 million; however, the associated value of these payments rose by 2.8% to $7.1 billion. This trend continued the following year, with processed instruments off by 4.8% to 2.6 million—only then did the associated value decline by 1.3% to $7.0 billion. As for the volume of retail NACHA payments, these have increased by an average 12.3% each year since 2014 to 2.3 million settlements in 2016. The attendant value reached an estimated $2.0 billion in 2016, almost a third above 2015



Source: Central Bank of The Bahamas

Card-based access to payment services has also shifted in favor of electronic settlement. As at 2016, the use of automated teller machines (ATM) had decreased to 10.6 million transactions from an estimated 12.9 million in 2014, with some interim fluctuations. Over the same period, the value of cash transactions at ATMs fell to $2.0 billion from $6.7 billion. Still, the number of ATMs deployed in The Bahamas rose over this period from 334 to 393 with some 73.6% located in New Providence, while 14.3% and 12.1%, were situated in

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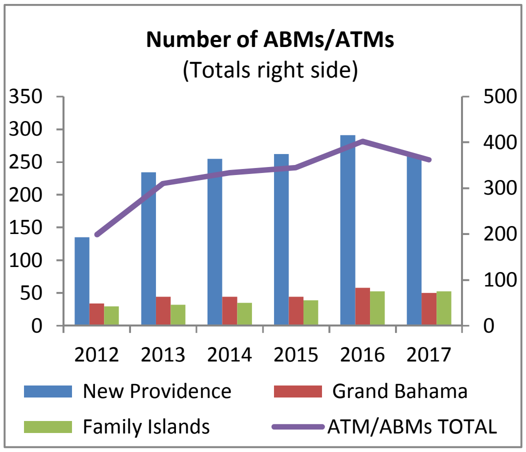
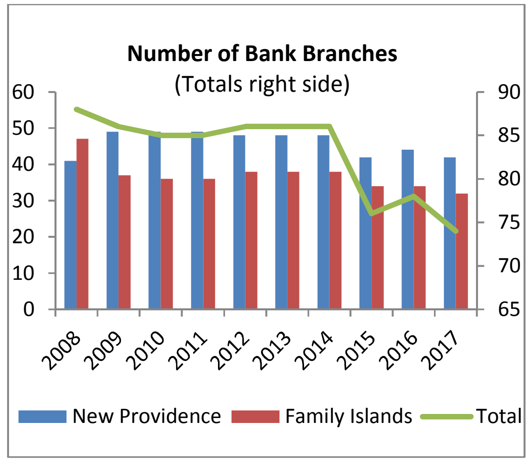
[9] RTGS flows include direct interbank payments, X9 (checks) and NACHA (direct credits) and over the counter instructions.

[10] Check clearing is a payment stream that affects both the RTGS and ACH.

Grand Bahama and the Family Islands, respectively. Conversely, the use of debit cards for point of sales payments, increased to 9.1 million instances in 2016 from 7.2 million in 2013, even as ATM use for cash purposes declined. The estimated value of such transactions also expanded to near $10 billion[11], as compared to $6.3 billion in 2013.





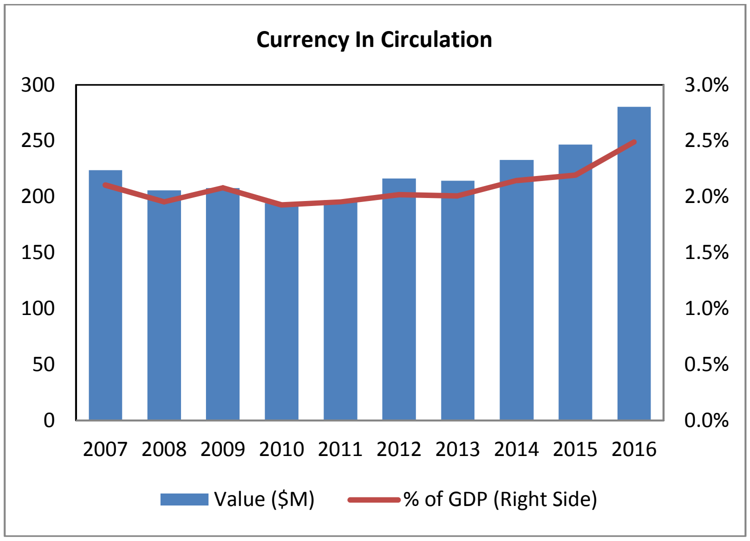
Source: Central Bank of the Bahamas

Indications of access to electronic banking services are also firming. In 2014, the number of residential and business users stood near 60,000, with the count rising to almost 67,000 in 2015 and to 75,819 in 2016. These trends also underline increase use of electronic access to initiated payments.

Meanwhile cash held in the hands of the public continued to increase over the decade. At the end of 2016, currency in circulation stood at $280.5 million, or approximately 4.1% of the money supply (M3). This was a recovered ratio, relative to an estimated 3.1% of M3 at the mid-point of the decade and 4.0% of M3 in 2007.

These data do not capture gaps in inclusiveness or access. Anecdotal evidence suggests, for example, that reliance on check payments is still prevalent for firms that have not started to make wage payments by direct deposits, such as entities in the construction sector. Additionally, some of the wage earning concentration of check payees either lack access to deposit accounts or require swifter access to the funds than is permitted when such instruments are deposited. In each case, payees face costlier access to services for immediate check cashing, both in terms of check cashing fees and time consumption for over the counter services. The latest surveys by the Central Bank suggest that check cashing fees range from $5.00 to $15.00 (VAT exclusive) per instrument, with indications that at least three of the banks now charge for this service.

[11] Estimated.



Source: Central Bank of The Bahamas

For some payees, there is still no alternative to check cashing if they lack access to deposit accounts, for reasons that could include the inability to satisfy the due diligence requirements of banks at the account opening stage. Another, less documented reason for the continued demand for payments by checks, even when electronic means are feasible, is that payees depending on their circumstances, would prefer to conceal the receipts to avoid satisfying other financial obligations.[12] Additionally, the incentive for check payments has persisted in part in the enterprise sector, due to the per unit cost for making electronic payments. For the direct deposits of salary and wage payments, for example, the expense ranges between $0.75 and $150.00, depending on the institutions on which the funds are being drawn or deposited and the number of employees within the company.

These costs and inclusion factors slow the pace of payment system modernization, and the important goals of both reducing check and cash usage. Surmounting these challenges requires a reduction in barriers to access provided through deposit services. They also require initiatives to increase the ability of commercial enterprises to accept or to initiate electronic payments.

Accelerating Payments System Development

The Central Bank's strategy for accelerated payment system modernisation is with a broad set of objectives to increase inclusion and access to financial services, and to achieve greater reliance on cost effective electronic services delivery. In the mix, activities informing the strategy will encompass stakeholder education and awareness and, where essential, proposals for more reforms to the supporting legal infrastructure.

Strategic goals include the following:

- Introduction of a digital version of the Bahamian dollar
- Universal point of sales access to receipt of electronic payments

[12] The Central Bank, however, would not categorize cost inconveniences for this subset of users as relating to financial exclusion.

- Universal access of residents to the means to initiate low cost digital payments
- Universal access of individuals to basic depository services from financial institutions
- Accelerated reduction in the use of checks and physical cash for payments

The Bank believes that the necessary infrastructure will have to be in place to ensure fully interoperable payments settlements between individuals, private sector entities and the public sector. This would, at a minimum, involve adaptation to mobile phone technology, alongside card-based systems to ensure that payments means are accessible to segments of the population who might be less comfortable with certain technologies, such as the elderly. To be compatible with the rigours of AML/CFT standards, a robust national identity infrastructure will have to be installed, expanding upon and more fully integrating existing domestic systems.

The Bank contemplates actions in the following areas:

- Development of a digital identification system, with appropriate legal infrastructure. It is hoped that this system would be piloted in the financial services sector, providing secure ID input for services initiation or relationship maintenance.
- Review of banking sector regulations and guidance to enhance access to a minimum level of deposit services, within non-exclusionary customer due diligence standards.
- Sponsorship of an interoperable platform for digital Bahamian dollar currency with a minimum level of payments capability.
- Revision of policies for payments services providers regarding direct access to RGTS and ACH systems, and associated access to clearing balances at the Central Bank.
- Development of a framework to equip micro, small and medium-sized enterprises with point of sales capacity to receive electronic payments.
- Identification of a Family Island for piloted introduction of universal payment services access. The timeline for the launch of this pilot is within the next 24 to 30 months.

Several recent and pending initiatives are expected to yield added results on payments system reform, even though more direct Central Bank involvement is contemplated, going forward. The Payments Instruments Oversight Regulations, 2017, already defines the framework for stored value Electronic Money products, and will permit providers other than banks, credit unions and MTBs to operate in this space. The credit bureau framework will also have positive financial inclusion impact that is expected to extend to the payments space, as it would affect access to credit cards. The Credit Bureau Bill, 2018, has just been debated and passed in Parliament. With the coming onto force of the Act being very imminent, this paves the way for the establishment and licensing of the credit bureau.

On the ease of access to deposit facilities and payment services, the Central Bank has already foreshadowed, through a consultation paper, simplified customer due diligence (CDD) requirements for opening of deposit account at, and access to other financial services from institutions supervised by the Bank. This framework is expected to increase the ease of opening deposit accounts for low–risk customers, and provide access to lower value pre-paid payment instruments without the onerous CDD.[13]

[13] Where CDD is applied, it is now more tailored to The Bahamas' domestic circumstances, remaining consistent with the Financial Action Task Force's AML/CFT standards. Residential address verification in its traditional sense has been de-emphasized in favor of having multiple means of contacting customers easily via

The Central Bank' financial literacy campaign is, among other goals, aimed at increasing comfort and confidence in the use of financial services through electronic modes. One thrust of the campaign includes educating consumers on certain basic financial products and building confidence around greater use of electronic banking services and electronic payments products. The literacy campaign will focus on improvements which have made the technology platform safer and on instructing consumers in practices to protect themselves against cyber fraud. It is important that consumers (particularly those that would have previously been unbanked or underbanked) understand that going digital can be safer than transacting in cash, given the insurance mechanisms and safeguards that financial institutions provide. Banks, for example, can reimburse customers for losses perpetrated through credit and debit card fraud.

As the largest counterparty to retail payments transactions, and the driver of legislative reform, the Government has a pivotal role to pay in the payments systems evolution. This starts with the public sector's receptivity to transition away from issuances of checks and to the adoption of systems that allow the government to easily receive electronic payments. There is already progress in these areas, which is expected to deepen, especially with regard to the reach of services in the Family Island, and in tandem with efforts already promoted to increase the access of casual wage earners to banking services. The Government's role will also be pivotal in supporting timely changes to the legal framework to put in place the appropriately evolved infrastructure for the electronic security and exchange of personal data. The Central Bank proposes to work closely with key public sector agencies, including the Ministry of Finance and the Attorney General's Office, as well as the Ministry of Foreign Affairs (Passport Agency), in charting the infrastructural reforms for the next phase of the payments system modernisation. Some of the basic infrastructure foreshadowed will have wider use within the economy.

The Way Forward

As to the way forward, the Central Bank will strengthen its engagement with key public sector agencies to advance infrastructure and regulatory reforms for digital delivery of financial services. The Bank will also stay involved with other stakeholders through the National Payments Council, to ensure progress, particularly within the private sector on enterprise level adjustments that would support more reformed payments practices. An interim deliverable is to identify communities for the piloted currency innovations, and service sectors for potential innovations to the personal identity infrastructure. In the meantime, public education and awareness to encourage increased receptivity to reformed payments practices will become entrenched.

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authenticable electronic communications channels. The new requirements also give more explicit credence to means of identification other than the Bahamian Passport, including trusted verification through third party references in the absence of sufficient official photo ID documents.