# *THE BANK OF GUYANA*

# NATIONAL PAYMENTS SYSTEM DEVELOPMENT VISION AND IMPLEMENTATION PLAN

**March 2018**

# Table of Contents

## Glossary

| | |
|---|---|
| ACH | Automated Clearing House |
| ASYCUDA | Automated System for Customs Data |
| ATM | Automated Teller Machine |
| ATS | Automated Transfer System |
| BCCB | British Caribbean Currency Board |
| BIS | Bank for International Settlements |
| BoG | Bank of Guyana |
| CPMI | Committee for Payments and Market Infrastructures |
| CSD | Central Securities Depository |
| CS-DRMS | Commonwealth Secretariat Debt Recording and Management System |
| DvP | Delivery Versus Payment |
| EFT | Electronic Funds Transfer |
| GASCI | Guyana Association of Security Companies and Intermediaries |
| GSE | Guyana Stock Exchange |
| GYD | Guyana Dollar |
| IFMAS | Integrated Financial Management System |
| IOSCO | International Organization of Securities Commissions |
| MOF | Ministry of Finance |
| MTA | Money Transfer Agent |
| NCCH | National Cheque Clearing House |
| NPC | National Payments Council |
| NPS | National Payments System |
| NPSA | National Payments System Act |
| P2P | Person-to-Person |
| PAFI | Payment Aspects of Financial Inclusion |
| PFMI | Principles for Financial Markets Infrastructures |
| POS | Point of Sale |
| PSP | Payment Service Provider |
| PSO | Payment System Operator |
| RR | Reserve Requirement |
| RTGS | Real-time Gross Settlement |
| SIPS | Systemically Important Payment System |
| SRO | Self-Regulating Organization |
| STP | Straight Through Processing |
| TBD | To Be Determined |
| WB | World Bank |

## Foreword

The National Payment System Strategy consist of four chapters and five annexes.

Chapter 1 examines the current state of payment in Guyana. It noted that Bank of Guyana is the institution responsible for payments. However, there is need to upgrade the laws, regulations and infrastructure for a safe, efficient and modern payment system. The chapter analyses the role of the main players in the current payments arrangement.

Chapter 2 focuses on the National Payment System Strategy. The Bank will lead the development of the NPS Strategy. It defines the role of a National Payment System as a series of layers in an inverted pyramid in which each layer is supported by layers beneath it. The broadest layer, which sits at the top of the inverted pyramid, represents the economy and all the end-users of payment services. The next level of the pyramid represents the payment services that offer the means to make payments and transfers funds that are more efficient or convenient than cash transactions in person. The third level consists of a limited number of payment systems and networks through which payment and other financial transactions are processed. The final settlement of these fund transfers takes place in the accounts held by approved institutions at the central bank. In this regard, the central bank plays a pivotal role in the functioning of the economy as a whole. It identified nine (9) pillars for a robust NPS and its guiding principles.

Chapter 3 explores Guyana's vision to build a safe, robust, sound, efficient and inclusive payment system that meets the current and future needs of the economy. It proposes the year 2030 as a realistic target for full realization of the NPS vision. However, in the medium term it proposes a 2017-2021 action plan as a first phase on achieving that vision.

The fourth chapter concludes with a highlight of the 2017 – 2021 NPS Development Strategy and plan of actions. The Strategy also have attached five annexes. With annex A looking at the 2030 Payment System Vision and it's nine pillars. Annex B addresses the nine pillars of a robust National Payment System. Annex C describes payment aspects of financial inclusions. Annex D list the general principles for international remittance services while Annex E addresses the terms of reference for the National Payment Council.

The preparation of the payment strategy has been a joint effort of the Bank of Guyana and a team from the World Bank. A preliminary draft of the strategy was issued to stakeholders for their comments in August 2016. The Bank is grateful for their comments and input that help strengthen the Strategy.

## Executive Summary

The vision for the National Payment System Strategy (NPS) in Guyana is to:

Build a robust, safe, sound, efficient and inclusive National Payment System (NPS) that meet the current and future needs of the economy, support financial activity and financial sector development , advances the use of electronic payments, contribute to financial risk mitigation achieves compatibility with international systems, adheres to the relevant international standards, guidelines and codes.

The fulfilment of the NPS Vision will be by a Medium Term plan (2017 – 2021) as follows:

- Enactment of a National Payment System Act, with the supporting regulations
- Enhance efficiency of Payment processing and reduce settlement times for both retail and large value transactions
- Attract higher rates of electronic payments acceptance by vendors, merchants and other providers of goods and services.
- Strengthen risk management mitigation across the NPS
- Strengthen oversight framework and capacity of the Bank of Guyana
- Expand accessibility of electronic payment access networks and support ecommerce

This will be followed by a longer term plan.

The Bank of Guyana will take the lead in the development and implementation of a strategic approach to advance the development of Guyana's National Payments System. The purpose of the strategy is to define the goods for the NPS, establish parameters to guide policy and set priorities.

The NPS Strategy and action plan for Guyana is organized around the Nine Pillars of a conceptual framework developed by the World Bank on National Payment System. These include legal framework, large value payments, retail payments, government transactions, securities depository, clearing and settlement, money markets, international remittances, oversight and cooperation.

Chapter 1

## Introduction and Background

1. **The BoG recognizes that Guyana' National Payments System falls short of meeting the needs of the economy and financial markets for efficient, safe and sound means to conduct transactions and transfer funds.** To overcome these shortfalls, the BoG is undertaking the leadership role in a comprehensive and strategic modernization of Guyana's NPS. With the active participations and cooperation of all NPS stakeholders, the BoG intends to undertake a comprehensive initiative to modernize the NPS and advance the use of electronic payments.
2. **The broad purpose of this Document is to state an agreed vision and strategies by all stakeholders in a broadened context based on the findings and conclusions of the BOG and World Bank diagnostics.** The final report provides key stakeholders with the policies, and organizational, technical and operational issues as discussed that are being undertaken as we progress with the successful implementation of the NPS in Guyana. The BOG recognizes that a successful initiative requires active participation from key stakeholders at both the policy and the operational level.
3. **This section provides an overview of Guyana's National Payments System. The structure of the market is introduced first, followed by a description of the status of developments across the nine core components or pillars of an NPS.** This section concludes with a summary of identified weaknesses and proposes a way forward to build a sound and robust platform for further development of the NPS.

## Institutional and Market Structure

4. **The Bank of Guyana (BoG) was established under the Bank of Guyana Ordinance No. 23 in 1965, seven months before the country gained political independence.** The early establishment of the Bank was promoted by an agreement of the UK Government (acting for the still colonial members of the British Caribbean Currency Board (BCCB) and the Trinidad & Tobago Government), for the dissolution of the BCCB by mid-1967. The Bank of Guyana Ordinance was revised and renamed the Bank of Guyana Act. This Act was further revised in 1995, 1998 and most recently in 2004. The later revisions significantly enhanced the role and purpose of the Bank within the framework of Guyana's economic and financial system. Additionally, they imparted greater autonomy to the Bank in terms of its constitution, administration, and operations.
5. **The BoG carries relatively broad regulatory and supervisory responsibility.** In addition to Guyana's commercial banks, the BoG regulates and supervises most of Guyana's other financial institutions. Finance companies, trust companies, merchant banks, money transfer agents (MTAs, the licensed cross-border remittance service providers), currency exchange services (cambios), and insurance companies, are among the non-bank financial institutions supervised by the BoG.

6. **Notably, the BoG does not supervise the nation's credit unions.[1] The Credit Unions provide important financial services to low and middle-income households in Guyana.** They are overseen by the Ministry of Social Protection and 24 of the 28 active credit unions are represented by the Guyana Cooperative Credit Union League. The sector serves approximately 36,400 members with assets amounting to GYD 6.3 billion.

7. **The BoG owns and operates the nation's only interbank payments system infrastructure, the National Cheque Clearing House (NCCH).** Participation in and use of the cheque-clearing house is at a fee of eight GYD.

8. **The BoG holds accounts for the commercial banks (Reserve Accounts) and the government.** The commercial banks use their Reserve Accounts to hold their Reserve Requirements (RR – currently 12% of deposits) and surplus reserves for: (i) settlement of NCCH net clearing positions; (ii) interbank payment obligations; and (iii) making payments to the BoG (e.g. for purchases of cash). The latter two types of payments are made by cheques drawn on the Reserve Accounts. The government holds a large number of active accounts at the BoG, including the Consolidated Fund account. As of April 2016, 180 active government accounts were held at the BoG. (See Figure 1 for a depiction of the institutions and flows of funds and information between and within the institutions.)

9. **Guyana's six commercial banks are the main providers of payment services.** The commercial banks are Bank of Baroda (Guyana) Inc. (BOB), Citizens Bank Guyana Inc. (CBI), Demerara Bank Ltd. (DBL), Guyana Bank for Trade and Industry Ltd. (GBTI), Republic Bank (Guyana) Ltd. (RBL), and Bank of Nova Scotia (BNS). The commercial banks offer cheque services, card based payment services, and limited 'direct' deposit services. Five offer ATM services, three offer debit cards with POS capability, and two offer prepaid cards. Four of the commercial banks offer account access via internet and mobile phones, but the services are limited to intrabank transfers, payment initiation, and account inquiries. The two largest banks maintain networks of 10 branches each. Most of these branches are located in the coastal urban areas, as are the handful of branches operated by the other four banks.

10. **Other payment service providers include MTAs, the post office, and a mobile network operator.** There are five licensed MTAs in Guyana. The two major MTAs offer international and domestic remittance services, as well as bill payment services. The mobile network operator, Guyana Telephone and Telegraph (GTT) Company, offers mobile money services via a subsidiary, Mobile Money Guyana (MMG). The mobile money services offered by MMG include person-to-person (P2P) payments, bill payment and some merchant payment services. The Guyana Post Office offers a cash-based bill payment service, and functions as a cash outlet for agent social benefit payments and some MTAs. The payment functions of Guyana Post are conducted manually and in person.

11. **Guyana's other deposit-taking institutions are not allowed to offer payment services.** This restriction appears to derive from the 1891 Bills of Exchange Act that limits the authorization to issue 'bills of exchange' to commercial banks. The New Building Society, Hand-in-Hand Trust Corporation, and the nation's 28 active credit unions, offer deposit, credit

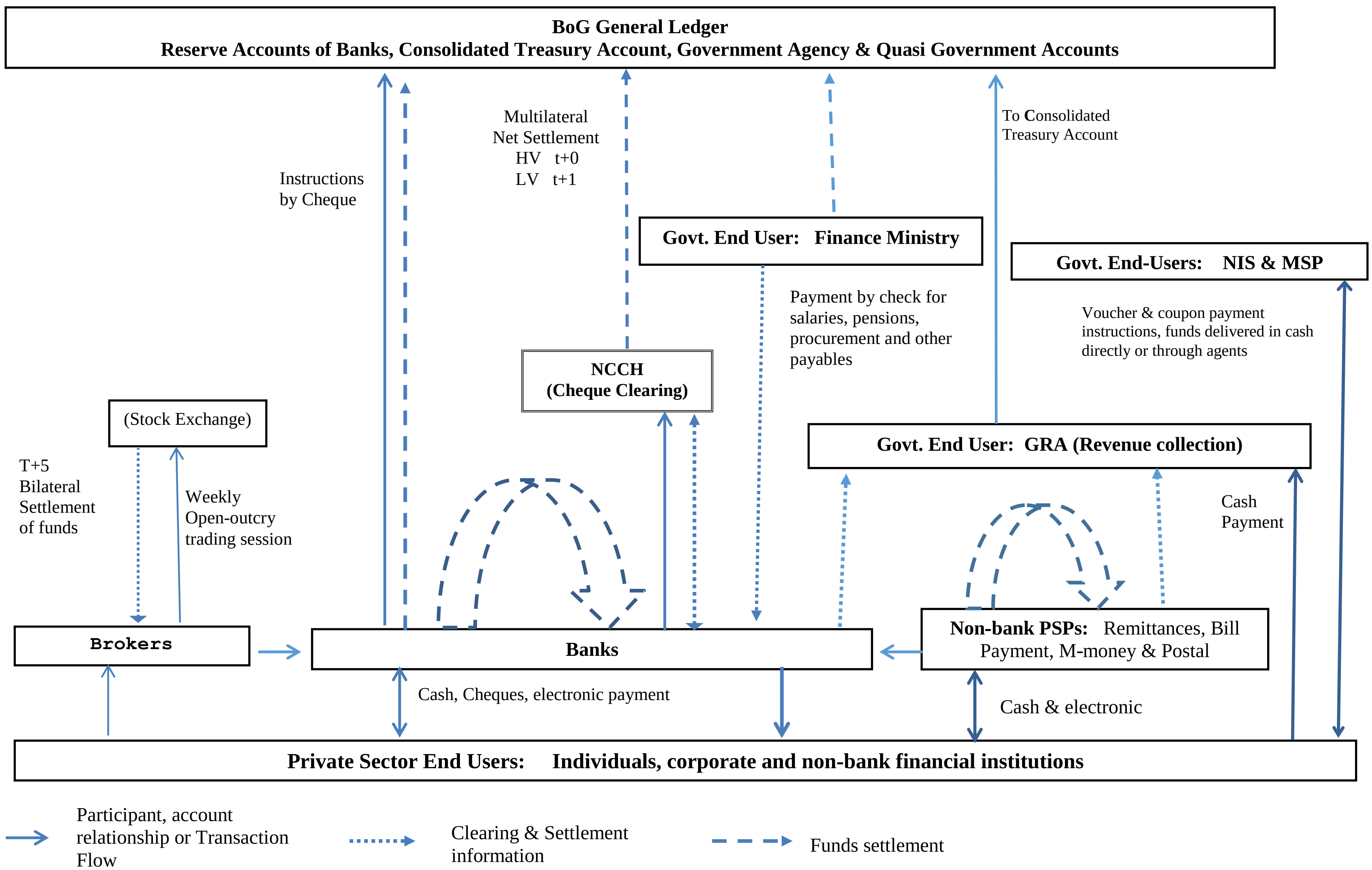
[1] A study is underway on the supervision of the credit unions.

and some insurance products. They are not permitted to offer domestic or international payment services. The credit unions conduct their payment transactions, including those associated with the deposit and credit products they offer their clients, via the accounts they maintain at one or more of Guyana's commercial banks.

12. **The BoG plays a major role in government securities transactions.** Government securities auctions are handled by the BoG. The BoG uses the same system that manages the auctions, the Commonwealth Secretariat Debt Recording and Management System (CS-DRMS), to register the ownership of the newly issued securities. However, CS-DRMS cannot register changes in ownership of government securities or their use as collateral.

13. **The only institution supporting the private sector securities market is the Guyana Association of Securities Companies and Intermediaries (GASCI).** GASCI, which is organized as a self-regulating organization (SRO), operates the Guyana Stock Exchange (GSE). GASCI runs one trading session per week, using a simple system based on Microsoft Access. Stocks are not dematerialized, nor is there a centralized registry or depository to record the ownership of corporate stock. The payment settlement period is set by the rules of the GASCI at T+5, but there is no set settlement period for the issue of new certificates of stock ownership. As a result, the risk-mitigating concept of delivery vs. payment (DvP) is not achieved.

**Figure 1. Guyana National Payment System**



## Legal and Regulatory Framework

14. **In addition, while there are specific legal provisions for international remittance services, there are no statutory or regulatory provisions to govern a range of other payment services and payment mechanisms.** For example, there are no statutory provisions on electronic transactions, including the electronic processing of cheques and the use of truncated or electronic cheques. There are no provisions on credit transfers, either paper-based or electronic, or on electronic debit transfers. No secondary measures exist on cards, either credit or debit, or on e-money instruments. Finally, apart from the specific provisions on international remittances, the law is silent on whether non-banks are allowed to offer other payment services. In the absence of such provisions, the provision of domestic remittances and bill payment services by MTAs falls completely outside legal and regulatory framework, and thus, outside the reach of BoG oversight.

## Payment Infrastructure – Clearing & Settlement Systems

15. **Guyana's NPS lacks the infrastructure necessary to integrate payment services across providers.** In specific, there is no real time gross settlement (RTGS) system, automated clearing house (ACH) or card switch. The only infrastructure currently in place to support payment transactions is the National Cheque Clearing House (NCCH). No infrastructures exist in Guyana at present to facilitate electronic fund transfers (EFT) between banks, support interbank money or foreign exchange markets, or enable delivery vs payment (DvP) in securities settlement. However, the BoG is planning to introduce an Electronic Funds Transfer (EFT) system in mid 2018 as an extension of the NCCH system. This will provide ACH functionality for clearing direct credit and direct debit transfers. Further, common risk mitigation practices, such as liquidity management tools and facilities, are not available to participants in the existing system.

16. **The absence of efficient infrastructures impedes the ability of commercial banks to execute their clients' interbank payments efficiently, and thus affects both public and private sector activity.** It slows and complicates the payment of government salaries, pensions and other benefits, and payments to suppliers. It also limits the ability of the government to use electronic means to collect payments. For the private sector, it contributes to heavy use of cash and intrabank transactions. According to observers, bank customers tend to hold accounts at multiple banks so that they can conduct intrabank transactions with other entities and individuals, rather than using the available interbank mechanisms. While figures on intrabank transactions volume are not available, the very low per capita use of interbank cheques (see below) supports this observation.

17. **The NCCH, itself, suffers from inefficiencies related, in part, to weaknesses in the legal and regulatory framework and the inability of some banks to conduct straight through processing (STP) of interbank cheque transactions.** As suggested in Table 1, interbank cheque transaction volumes are quite low – just 1.5 interbank cheques are processed per year per adult resident in Guyana.

**Table 1. NCCH Transaction Volumes and Value**

| | Interbank Cheques Transactions via the NCCH 2015 | | | | | |
|---|---|---|---|---|---|---|
| | Volume | | | Value | | |
| | Annual Volume | Annual per capita | Average Daily | Annual Value | Average Daily Value | Value per transaction |
| Low Value Cheques Less than GYD 500,000 | 899,724 | 1.23 | 3,599 | GYD 316 b | GYD 1,266 m (USD 6.1 m) | GYD 0.35 m (USD 1,704) |
| High Value Cheques GYD 500,000 and above | 134,765 | 0.18 | 539 | GYD 697 b | GYD 2,789 m (USD 13.5 m) | GYD 5.17 m (USD 25,081) |

*Source:* WB based on information provided by the BoG.

## Retail Payments

18. **Retail payments in Guyana are largely cash- and paper-based with nascent signs of movement toward electronic payments.** Consumers make an estimated 243 million transactions a year and receive an estimated 21 million.[2] (See Table 2.) Consumers use cash to meet 99 percent of their transaction needs. (See Table 3.) The Government and larger business entities make use of cheques, cash and other paper payment orders, such as vouchers. Modest movement toward electronic payments is evident. For example, some employers are moving to salary 'direct' deposits, bill payment services are attracting the participation of the utilities, and some individuals and entities are using electronic and/or remote payment services. However, in most such cases, manual processing is still required and cash is typically used at one end of the transaction or the other.

**Table 2. Adult Transactions by Type**

| Consumer Transactions Annually | |
|---|---|
| Millions per year | |
| Payments initiated | 243.3 |
| Payments received | 21.4 |
| Deposits into accounts* | 4.4 |
| Withdrawals from accounts** | 4.2 |
| **Total Annual** | **273.2** |
| * Cash and check deposits | |
| ** Cash withdrawals | |

*Source:* WB (October 2015) [2]

[2] WB, Results from the Guyana Surveys, Retail Payments: A Practical Guide for Measuring Retail Payment Costs – Demand Side, Financial Infrastructure Series, October 2015.

### Table 3. Payments Instruments Used by Adults by Use Case

| Use Case by Payment Instrument for Payments Initiated by Individuals | | | | | | |
|---|---|---|---|---|---|---|
| Shares in percent* | | | | | | |
| | Cash | Cheque | Cards | Credit Transfers | | M-money |
| | | | | Paper-based | Electronic | |
| Frequent purchases of goods | 99.6% | | 0.4% | | | |
| Frequent purchases of services | 99.0% | | 1.0% | | | |
| Periodic bill payment | 95.0% | 0.5% | | 2.0% | 2.4% | 0.1% |
| Remittances sent | 99.0% | | | 1.0% | | |
| Durable goods & services | 97.0% | 1.0% | 1.0% | | 0.9% | |
| Payments to Government | 100.0% | | | | | |

* Blank cells indicate zero usage of the instrument to conduct payments for the relevant use case.

*Source:* WB (October 2015)

19. **Apart from cash- and paper-based payment instruments and services, a handful of electronic and remote payment services are available.** Card-based payment services, intrabank electronic credit and debit transfers, domestic and international remittance services, bill payment services, m-money and postal payment services are all available to varying degrees.

20. **However, the usefulness of available payment services is limited by accessibility constraints, the lack of interoperability across service providers and the lack of robust infrastructures that support efficiency and facilitate remote transactions.** As noted above, the number of bank branches is extremely limited: the largest two banks have only ten branches each and the other four banks as few as one. The two largest MTAs offer only around 50 sub-agent locations each. ATM and POS access is also extremely limited.

21. **There are only 21 ATMs and 159 POS devices for every 100,000 adults in Guyana, and apart from Visa co-branded cards, neither the ATMs nor the POSs are interoperable.** In contrast, the commercial banks report 335,014 of the debit cards they've issued are active. That is one card for every seven adults in Guyana. Adults report that on average it takes 18 minutes for them to travel to an ATM they can use. This is the same amount of time it takes, on average, for an adult to reach a collection office and only two minutes shy of the 20 minutes it takes to get to a bank branch or agent outlet. The primary advantage of the ATMs in this regard is that adults, on average, report wait times of only five minutes at ATMs. This compares quite favourably to the 20-minute wait times reported for bank branches, agent outlets and payment collection offices.[2]

22. **The number of ATMs and POS devices available to specific customers is further constrained by the lack of interoperability across the card industry in Guyana.** Each commercial bank issues its own cards and operates its own ATM and POS access networks. Some of the bank issued cards are co-branded with one of the major international card brands. These cards do offer interoperability across ATM and POS networks that accept VISA cards. Domestic transactions on Visa co-branded cards are settled through the Visa Net Settlement System. Domestic transactions on domestic cards that are not co-branded with Visa are cleared and settled in house, or in the case of the internationally owned banks, abroad via the parent bank's card settlement system. Internationally transactions on the co-branded cards are settled overseas in the systems of the international card companies.

23. **The commercial banks are working with VISA to establish interoperability of the domestic cards and the ATM / POS networks in the country.** Each commercial bank has or is working to achieve VISA certification so that they can issue VISA co-branded cards. Once the process is completed, domestic transactions using the co-branded cards will be processed via an overseas VISA card switch. It is unclear what fees VISA will charge for this service or what fees will be charged by the acquiring bank for the use of its ATM/POS networks by holders of cards issued by other banks.

## Government Payments

24. **The Government is the single largest end-user of payment services.[3]** In volume terms, the vast majority of Government disbursements are associated with large payment programs. These include salary payment programs, pension programs, social assistance programs, and revenue collection. The Ministry of Finance (MOF), the National Insurance Scheme (NIS) and the Ministry of Social Protection (MSP) manage the largest of the outgoing payment programs. In terms of inward flows, the Guyana Revenue Authority (GRA), and the NIS, both quasi-government agencies, manage the largest. Excluding revenue collection, the programs managed by the MOF, NIS and MSP account for an estimated 260,000 payments a month (a daily average of over 11,000) and over three million a year.

25. **The MOF has the most sophisticated internal system.** The Finance Ministry uses a centralized, fully automated government Integrated Financial Management System (IFMAS). This system is capable of generating electronic payment orders for all 10,000 to 12,000 government employees, 8,000 to 9,000 government pensioners, and all the vendors that supply goods and services to the Government. Yet, due to the weaknesses in the nation's payments infrastructure and despite the sophistication of its internal system, the MOF must still print and hand deliver paper cheques to meet these payment obligations. The Accountant General's office has a dedicated "paystation" connected to IFMAS, which prints 2,000-3,000 cheques per day, with a particularly heavy load on paydays.

26. **The GRA includes two divisions: Internal Revenue (responsible for collecting taxes), and Customs and Trade Administration.** Internal Revenue uses the TRIPS electronic tax administration system developed by Crown Agents. Despite this, all taxes are currently paid either in cash or by cheque. Customs and Trade Administration is planning to implement the ASYCUDA (Automated System for Customs Data) system developed by UNCTAD next year.

27. **Government employee and pensioner payments are deposited via indirect means into the accounts of the recipients by the Finance Ministry.** A multistep process is required to make the salary and pension payment deposits. The Finance Ministry delivers a single, consolidated cheque payment order (electronically and in paper form) to each bank for all the employees that hold accounts at that bank. The bank then deposits the funds due to each employee (as specified in a file sent to that bank by the Finance Ministry) to that employee's account. This process requires manual handling, is subject to delays in crediting of employees' accounts and raises the risk of error.

28. **Notably, the recipients of government salaries and pensions whose payments are delivered electronically into their bank accounts make little or no use of their accounts to conduct payments electronically.** Most recipients fully cash out their payments via ATM withdrawals as soon as the funds are made available for their use.

29. **The large volume payment programs managed by the NIS, the MSP and the revenues collected by the GRA are still largely paper based.** The distribution of funds by both the NIS and the MSP are

[3] In this context, Government is defined to include the quasi-government organizations that manage social benefit programs, as well as the central government.

primarily made in person in cash with recipients required to present a NIS voucher or a MSP coupon, respectively, when they collect their monthly payments. Typically, payments to NIS and GRA are made in person via cash or cheque.

30. **The government, including government agencies, could save significant funds by switching to electronic payments.** According to a 2015 payments cost study conducted by the World Bank's Payment Systems Development Group (PSDG), the government of Guyana could save up to GYD 266 million (0.04 % of GDP) annually by switching from paper-based payment mechanisms to electronic payments. The Accountant General's office (which operates the IFMAS) is very keen to move to fully-electronic payments from IFMAS, but this is not currently possible due to there being no ACH function for electronic credit transfers.

31. **Notably, a small number of NIS recipients have opted to receive their pensions electronically.** In such cases, the NIS tries to initiate the 'direct' deposits into the accounts of these recipients a month in advance. The NIS does so in order to allow time to correct errors and compensate for the lack of predictability regarding how long it will take the banks to make the funds available to the recipients.

## International Remittances

32. **Remittances play an important role in Guyana's economy.** In 2015, cross-border remittance to Guyana were equivalent to 9.3 percent of GDP. However, the cost of sending remittances to Guyana is unusually high, especially for Latin America, physical access to remittance services is relatively limited, and remittances remain almost exclusively cash-based. The average cost of an inbound remittance from the United States to Guyana was 8.7 percent in the second quarter of 2016.[4] This is well above the Latin American average of 6.0 percent and the global average of 7.6 percent for the same period.

33. **In terms of access, remittance customers report that it takes an average of 20 minutes to reach an agent location.**[2] This is longer than it takes the average resident to reach an ATM or a bill collection office, and the same amount of time it takes to reach a bank branch. Given the importance of remittances to the economy and as a source of income to residents, agent locations appear to be more difficult to reach than would be expected.

34. **The lack of competition in the remittance market is believed to be one of the factors contributing to both the high cost and limited access of remittance services.** Two large regional remittance companies dominate the market, Massy and Grace Kennedy. Each functions as an exclusive super-agent of a major international money transfer organization (MTO). Likewise, each operates in Guyana through a network of around 50 exclusive sub-agents.

35. **Massy and Grace Kennedy provide their agents the equipment they need to conduct remittance transactions.** The agents provide the liquidity, upfront, to conduct cash-in and cash-out remittance transactions for their customers. The sub-agents are reimbursed, typically on a daily basis, by the super-agent with whom they work. Both Massy and Grace Kennedy conduct unannounced visits to their agent locations to monitor operations and performance.

36. **These two dominant firms, along with three other entities, are licensed as MTAs by the BoG under the MTA Act.** The MTA license only covers the provision of cross-border transfers. Other services provided by the MTAs, i.e., domestic remittance and bill payment services, are not covered by the MTA

[4] The cost of a USD 200 remittance from the United States to Guyana. WB (2016) *Remittance Prices Worldwide*.

Act or any other legal provisions. The provision of these other payment services is neither legal nor illegal.

## Securities Clearing and Settlement Systems

**37. No effective infrastructures exist to facilitate safe and efficient public or private sector securities transactions.** Public sector debt issuance is supported by a system that records ownership of newly issued government T-bills. The system manually record changes in ownership. For private sector securities trading, manual and paper-based processing is required at all post-trade stages, there is no set timeframe for the delivery of the securities, and the Board of Directors of the securities-issuing entity can void the change of ownership without cause. These structural and governance weaknesses contribute to the limited development of the capital market in Guyana and, as a result, the limited availability of long-term investment opportunities for the insurance and pension industries in Guyana.

## Interbank Money Market

**38. Guyana lacks an interbank money market.** The interbank lending that takes place is arranged bilaterally on case-by-case basis, and is typically governed by pre-existing bilateral agreements. As noted above, in instances in which a bank lacks sufficient liquidity to complete a transaction in the NCCH and is unable to borrow from another bank, the bank can request an intraday loan from the BoG. However, such loans requests must be approved by the Governor of the BoG. Failing that approval, the bank's positions in the NCCH will be unwound. Likewise, if a bank has insufficient funds to maintain its Reserve Requirement, it can borrow overnight from the BoG as a last resort at double the T-Bill interest rate.

## Oversight

**39. NPS oversight in Guyana is limited and diffused across several departments.** The BoG lacks a dedicated team to monitor developments in the payments sector, address challenges and drive reform. There are no formal arrangements or a structure to coordinate and implement the oversight function. Various departments of the BoG conduct specific functions, such as the supervision of certain infrastructures or market segments. For example, the Banking Division operates and oversees the NCCH and the Operations and Bank Supervision Departments oversees the remittance market and licensed MTAs.

**40. The oversight role of a central bank typically derives from its responsibility to foster the efficient and reliable functioning of the nation's payment mechanisms.** As such, the role typically encompasses a range of activities including the monitoring of payment systems and payment service providers, analysis of trends and developments in the NPS, the development of NPS policy, rules and regulations, the collection and analysis of data related to payments, and the development and modernization of the NPS.

## Cooperation

**41. Guyana lacks a mechanism for a comprehensive level of cooperation and consensus building among all payment industry participants, between regulators and all market participants, and among regulators.** There is a body, the Clearing House Committee (CHC), which fosters cooperation between the banks and the BoG on the cheque clearing system. This committee also appears to serve as an avenue for discussion and collaboration amongst this small group of stakeholders on broader payment system issues. However, significant segments of the industry, such as the MTAs, are not members of the CHC. Further, the interests of the users of payment services, including, for example, the managers of large-volume payment programs, remittance recipients, merchants, and consumers, are not represented in the only existing forum for cooperation on payment issues.

## The Way Forward -- Building a Robust NPS

**42.** The BoG and the NPS stakeholders recognize that the NPS is limited in its ability to meet the payment and settlement needs of the economy and financial sector in a safe, sound and efficient manner. Cash remains the primary means of payment amongst the population, despite gains in the use of electronic salaries and government benefit payments. With the exception of the BoG and the Ministry of Finance, the government and large business entities conduct most of their transactions with paper based payment instruments (cash, cheque, vouchers and coupons). The transition to electronic cheque clearing, settlement and processing has yet to be fully realized.

**43.** As highlighted above, the factors that constrain the functionality of the NPS are numerous and affect virtually every component of the NPS. The most pressing weaknesses include the following:

- Lack of legal clarity and certainty.
- Inefficient electronic payment processing, related to limited interoperability, absence of multilateral processing platforms, and the inability of some banks to conduct STP.
- Absence of mechanisms to mitigate major risks, including the risk posed by the potential need to unwind deferred net settlement (DNS) operations in the NCCH. Such mechanisms would include, for example, a collateralized intraday liquidity facility.
- Limited accessibility of electronic payments, due to the sparse distribution of electronic payment acceptance devices and the lack of interoperability across the device networks.
- Very limited acceptance of electronic payments by providers of goods and services.
- Barriers to efficient use of electronic payments by the government.
- High cost and limited accessibility of remittance services.
- Limited BoG oversight capacity.
- Narrowly defined stakeholder engagement.

# Chapter 2

## NPS Strategy Development

**44.** **The BoG is leading the development and implementation of a strategic approach to advance the development of Guyana's national payments system.** The purpose of the strategy is to define the goals for the NPS, establish parameters to guide policy, set priorities, identify implementation actions and the appropriate sequencing of those actions, and build stakeholder commitment to support the advancement of the strategy, including, as appropriate, a commitment to financially support strategy implementation. The latter include BoG establishment and staffing of a payment systems department within BoG.

**45.** **Increasingly, central banks are taking a proactive role in NPS development in order to foster the emergence of more efficient, safe and sound, and inclusive NPS.** The key to successfully executing such a proactive role is to develop a holistic strategic plan to guide policy and action. Such a plan would be organized around a Vision of the future NPS. The Vision should identify the goals and objectives for the envisioned NPS, its primary features and criteria to monitor/judge success of the strategy, and the fundamental principles that will guide the development of the strategy. Finally, based on the Vision, a set of strategies, actions and projects should be identified to foster the achievement of the Vision.

46. **The scope and difficulty of developing and successfully implementing such a strategy for NPS modernization should not be underestimated.** This is a new process for the parties involved, and the projects that will be designed and carried out under the umbrella of the overall strategy will present new challenges to all. The major risks are that: (i) the services and systems developed under the strategy (or as a result of the implementation of the strategy) are not used (ii); the resulting changes in the NPS do not satisfy the needs of end users; and (iii) the systems are not cost efficient or affordable.

47. **The BoG-led collaborative and cooperative approach to the development of this strategy is intended to minimize these risks.** Further, the approach put forth is centred on establishing an enabling environment for the emergence of a safe, sound and robust NPS. In order to have an efficient cooperative approach, appropriate human resources, in numbers and expertise, must be made available by the relevant stakeholders.

48. **In this section of the report, four key aspects of NPS development are discussed. First, the role of a nation's NPS is explored.** Next, the complex array of components of a NPS are identified. The components include, for example, systems, payment instruments, laws, and the users of payment services. Following that, the nine functional pillars of a NPS are briefly explored. These pillars form the basis, or conceptual framework, for the development of a comprehensive NPS strategy. Finally, the guiding principles for NPS development and the on-going performance of a NPS are discussed.

## The Role of a National Payments System

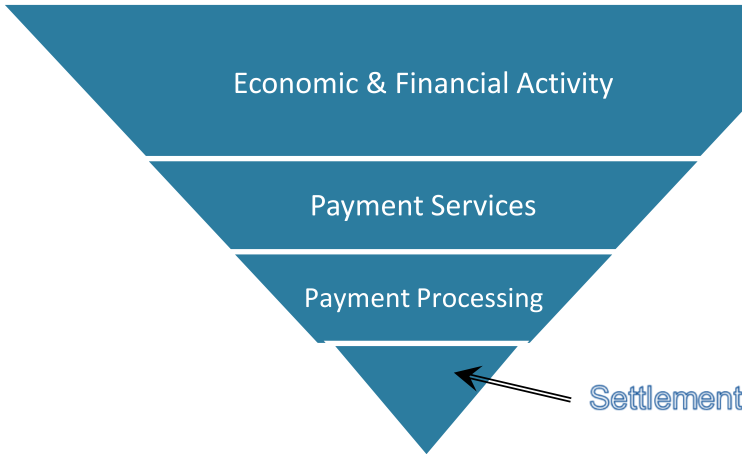
49. **A National Payments System is a core component of the broader financial system.** It can be viewed as the infrastructure that provides the economy with the channels or circuits for processing the payments resulting from the many different types of economic transactions that take place on a daily basis.

50. **Payment systems have become vital to economic life in most countries around the world.** They consist of increasingly complex, interconnected, and, sometimes, duplicative networks of institutions and people involved in the execution of fund transfers across an economy and between economies. Their smooth functioning is critical to the overall efficiency and stability of the market systems of which they are core parts.

51. **Conceptually, a country's economy can be viewed as a series of layers in an inverted pyramid, in which each layer is supported by the layers beneath it.** (See Figure 2.) The broadest layer, which sits at the top of the inverted pyramid, represents the economy and all the end-users of payment services. The next level of the pyramid represents the payment services that offer means to make payments and transfers funds that are more efficient or convenient than in person cash transactions.[5] The third level consists of a limited number of payment systems and networks through which payment and other financial transactions are processed. The final settlement of these fund transfers takes place in the accounts held by approved institutions at the central bank. In this regard, the central bank plays a pivotal role in the functioning of the economy as a whole.

[5] Individual, Retail, Industrial & Commercial, Financial, Government, and International Sectors.

**Figure 2. Role of the NPS**




*Source: World Bank, Payment System Development Group (PSDG).*

52. **A well-functioning NPS requires a delicate balance between market-driven competition, cooperation and public good aspects.** In an efficient NPS, banks and other payment service providers (PSPs) compete in the provision of payment services to business, government and individual customers, whilst achieving the benefits and efficiencies that stem from the usage of payment infrastructures by as many participants (i.e., payment service providers) as possible. With regard to the infrastructures, the achievement of economies of scale and scope depend on widespread usage of the systems.

## Scope and Components of an NPS

53. **An NPS encompasses a matrix of institutional and infrastructure arrangements and processes for initiating and transferring monetary claims.** It also includes the systems for the settlement of securities, securities depositories and money markets. The safe, efficient and inclusive functioning the NPS is guided by three final additional components of the NPS – the legal & regulatory framework, system rules, and NPS oversight. The components are listed in Figure 3 along with an indication of what entities, functions, mechanisms, and so on fall under which component.

**Figure 3. NPS Components**


*Source: World Bank, Payment System Development Group (PSDG)*

## Conceptual Framework: The Nine Pillars of a Robust NPS

54. **The strategy and action plan for the development of the NPS of Guyana is organized around the Nine Pillar NPS conceptual framework that was development by the Payment Systems Development Group (PSDG) of the World Bank more than a decade ago.** The Nine Pillar model was designed to support the development of a robust, efficient, safe and sound, and inclusive NPS in a comprehensive and holistic manner.

55. **The Nine Pillars represent the nine thematic areas of a NPS. These include, for example, the legal and regulatory framework, retail payments, and securities settlement.** In order to support the establishment of a robust NPS, the Nine Pillar framework offers a set of recommendations and goals in terms of the performance of the functions under each pillar. The Nine Pillars and aspirational goal for each are presented in Table 4 below. The full description of the Nine Pillars model and its recommendations is provided in Annex B.

**Table 4. Nine Pillars of a Robust NPS**

| | |
|---|---|
| **Pillar I.** | **Legal Framework.** Payment systems work in a sound and robust legal environment. |
| **Pillar II.** | **Large Value Payments.** Settlement mechanisms for Large-Value and Time-Critical Payments are safe and efficient and comply fully with the CPMI- IOSCO Principles for Financial Market Infrastructures. |
| **Pillar III.** | **Retail Payments.** Retail Payment Systems are efficient, sound and interoperable, and support the offer of a wide range of payment instrument and services. |
| **Pillar IV.** | **Government Transactions.** Government collections and disbursements are fully and efficiently integrated with the National Payment System. |
| **Pillar V.** | **Securities Depository, Clearing and Settlement.** Securities Depository, Clearing and Settlement are safe and efficient, fully comply with international standards, and support the development of capital markets. |
| **Pillar VI.** | **Money Markets.** Interbank money markets are fully developed and closely integrated with settlement systems. |
| **Pillar VII.** | **International Remittances.** International remittances and other cross-border payments are distributed rapidly and conveniently, and are cost efficient from the perspective of end users. |
| **Pillar VIII.** | **Oversight.** The oversight framework for payments and securities settlement systems is clearly defined, and the oversight authority exercises oversight effectively in cooperation with other regulators and supervisors. |
| **Pillar IX.** | **Co-operation.** Effective, structured and fruitful cooperation is in place within the NPS. |

*Source: World Bank, Payment System Development Group (PSDG).*

## Guiding Principles

**56. A vital issue in NPS development and implementation is to establish and build consensus around a comprehensive range of fundamental principles.** The principles address issues covered by internationally accepted standards and guidelines for payment and settlement systems, as well as, matters on which international standards are neutral or have not yet been developed.

**57. The set of international standards and guidelines of relevance for this purpose include** the 2012 CPMI–IOSCO Principles for Financial Market Infrastructures (PFMIs), the 2006 CPMI General Guidance for National Payment System Development, the 2012 WB Developing a Comprehensive National Retail Payments Strategy, the 2012 WB General Guidelines for the Development of Government Payment Programs, the 2016 CPMI-WB Payment Aspects of Financial Inclusion, and the 2007 CPMI-WB General Principles for International Remittance Services.

**58. The Guyana NPS development strategy has been designed to adhere to these standards and guidelines; as well as a set of principles on matters not addressed in the international body of guidelines.** The additional guiding principles include the following:

- Competition in retail payments is important to stimulate innovation, and foster the provision of low cost, accessible and inclusive payment services.
- Stakeholder cooperation and collaboration is important to the development and provision of robust, sustainable, safe and sound payment and settlement system infrastructure.
- Effective consumer protection frameworks are necessary to build and maintain the confidence of end-users.

- The central bank response to a problem in the NPS will be in the interest of the system, not individual participants.
- Adequate NPS oversight is necessary to foster the efficiency, effectiveness, safety and soundness of the NPS.

**59. These agreed-upon fundamental principles guide the strategy and its implementation for the entire NPS, including all sub-systems.**

# Chapter 3

## Guyana's NPS Vision

*Build a robust, safe and sound, efficient and inclusive NPS that meets the current and future needs of the economy, supports financial activity and financial sector development, advances the use of electronic payments, contributes to financial risk mitigation, achieves compatibility with international systems, and adheres to the relevant international standards, guidelines and codes.*

**60. This Vision statement presents Guyana's aspirational goals for the NPS. Given the current state of development of Guyana's NPS and the anticipated challenges, realization of this Vision will take considerable time.** Given this, BoG proposes the year 2030, as a realistic but ambitious target for the realization of the NPS Vision. In order to guide efforts over the intervening years, BoG has mapped out a high level, long-term strategy to achieve the goal by 2030. The long-term strategy is shaped around the Nine Pillars[6] of a robust NPS, developed by the Payment System Development Group (PSDG) of the World Bank, and highlighted in Table 4 above. This long-term aspirational strategy is presented as the 2030 Vision in Annex A of this note.

**61. For the immediate future, 2017 – 2021, the BoG proposes a more detailed and specific NPS Strategy and Plan of Action.** This strategy defines the priority goals and actions of relevance for the immediate future as well as those necessary to achieve the long-term state. The 2030 NPS Vision serves as the reference point for the development of the NPS 2017-2021 Development Strategy and Plan of Action. Care has been taken in developing the 2017-2021 Strategy to ensure that its goals and planned actions are consistent with the 2030 NPS Vision. As such, the 2017-2021 Strategy can be viewed as the first NPS Development Action Plan in a sequential set of plans to realize the 2030 NPS Vision.

# Chapter 4

## The 2017 – 2021 NPS Development Strategy and Plan of Action

### Strategic Objectives

**62. A broad consensus is emerging amongst NPS stakeholders around the strategic objectives of NPS development.** The strategic objectives identify the specific outcomes that are sought from the development of the NPS. A series of discussions with stakeholders, including payment system operators, on-bank service providers, banks, and a variety of end users, lead to the identification of set medium term objectives for the NPS. These include the following:

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[6] The Nine Pillars are presented in full in Annex B with the permission of the WBG's PSDG.

- Establish legal clarity and certainty.
- Enhance efficiency of payment processing and reduce settlement times for both retail and large value transactions.
- Strengthen risk management and mitigation across the NPS.
- Expand accessibility of electronic payment access networks.
- Attract higher rates of electronic payment acceptance by vendors, merchants and other providers of goods and services.
- Advance migration of government to electronic payments for both the collections and disbursement of funds.
- Drive remittance costs down and enhance accessibility of remittance services.
- Strengthen oversight framework and capacity.
- Build stakeholder engagement and cooperation.
- Support ecommerce.

**63. The objectives highlighted above will be pursued via a series of actions to be taken over the four-year period stretching from 2017 to 2021.** The actions are organized around the nine pillars of a robust NPS, discussed above. There are 25 actions in all. The implementation of these actions will be carried out in three phases with more than half slated for launch during the first phase of the Action Plan. (See below.)

## Primary Features

**64. In addition to the strategic objectives, a broad range of NPS features should be considered.** These features encompass a full range of specific policy, operational and technical attributes of the NPS as a whole, or specific components of the NPS. A partial list of features follows.

- Optimum use of available liquidity is made.
- Participation in payment and settlement infrastructures is on a fair and equal basis.
- Healthy competition amongst PSPs exists.
- Delivery versus payment (DvP) for securities transactions is achieved.
- Payment versus payment (PvP) for foreign exchange transactions is achieved.
- Internationally compatibility is established and maintained.
- Cost efficiency is achieved.
- Accessibility is broad based and wide spread.
- Risks are identified and mitigated and well managed.
- Innovation is supported.

## Critical Success Factors

**65. The success of the NPS strategy will be measured against achievement of a comprehensive range of indicators such as those illustrated below:**

- Adults adopt and use cashless payments.
- Acceptance of electronic payments by vendors, merchants, and other providers of goods and services increases.
- Payment services, instruments and access channels are interoperable.
- Competition and innovation is supported by level playing fields and equitable access for PSPs to the use of payment infrastructures.
- Remittance service costs fall in line with the regional or global average.
- Greater use is made of authorized remittance services.
- Government agencies and quasi-government entities reduce their use of cash.
- Irrevocability of settled transactions.
- Protection of funds.
- Risk control measures are state of the art.
- Effective customer complaint & dispute resolution.
- Effective fraud-prevention and detection measures.
- Data confidentiality and security.
- Adherence to national rules, regulations and procedures.
- Achievement of delivery vs. payment.

## Strategy Implementation

**66. The BoG has identified a series of actions to advance development of the NPS toward the robust state envisioned for the NPS.** These actions taken together constitute the 2017-2021 NPS Plan of Action. (See below and Table 5.) This program of change will be executed under the leadership of the central bank under its mandate to 'endeavour to achieve efficiency, reliability, and soundness of such systems [Payment systems].'[7] However, the implementing body for each action will depend on the nature of the action.

**67. The Bank of Guyana (BoG) will lead a number of the individual actions.** These actions will include, for example, those focused on enhancing risk management and mitigation, strengthening payment and settlement infrastructures, enhancing market competition, establishing a robust legal and regulatory framework and payment practices, establishing effective oversight, and building stakeholder confidence and commitment.

[7] Bank of Guyana Act (2004), section 62.

68. **The Government of Guyana will also take an active role in this effort.** In this regard, the Ministry of Finance, the social protection agencies, and the other government agencies are expected to advance their efforts to transition their collection and disbursement of payments to electronic instruments from cash and other paper based instruments such as payment vouchers.

69. **Similarly, the private sector PSPs and** payment system operators **(PSOs), including the commercial banks, non-banks, and MTAs, are expected to lead implementation on several actions, particularly, in the retail payments space.**

70. **The 2017 -2021 NPS Development Plan of Action is summarized in Table 5.** In the table, the Actions are organized around the Nine Pillars of a Robust NPS. For each of the 25 Actions, the table indicates (1) in which Phase the Action will be launched, (2) the goal(s) of the Action, (3) the lead implementing entity, and (4) the collaborating entities. The table also includes columns in which target completion dates and the status of the Action can be recorded.

**71. The discussion of the Plan of Action follows Table 5.**

## Table 5. Guyana: NPS 2017 – 2021 Strategic Development Plan of Action[8]

| | Phase | | Goal | Implementing Body | Collaborating Bodies | Target Completion Date | Status |
|---|---|---|---|---|---|---|---|
| **I** | | **Legal and Regulatory Reform** | | | | | |
| | 1 | Enact a Robust National Payments System Act (NPSA) | Establish clarity, foster competition, protect end users, facilitate oversight, foster interoperability, etc. | BoG | Government | March 2018 | In Process |
| | 1 | Establish / revise regulations on e-money, non-bank PSPs & PSOs, remittance services, licensing, reporting requirements, use of agents | | BoG | | March 2018 | In Process |
| | 1 | Ensure legal & regulatory provisions support competitive markets | Foster innovation and accessibility of retail payments | BoG | | TBD | TBD |
| **II** | | **Financial Infrastructure Development** | | | | | |
| | 1 | Implement the planned EFT system, building on the existing NCCH | Enable interbank EFTs | BoG | Banks | Planned for Q2 2018 | In Process |
| | 1 | Implement an RTGS system with linkages to the CSD (see next action), the NCCH and the EFT system | Mitigate systemic risk, speed processing, reduce risk, enforce DvP for securities transactions & enhance system flexibility | BoG | Banks, Government | Q2 2020 | TBD |
| | 1 | At the same time as RTGS, implement a closely-coupled CSD system | Improve safety, speed and efficiency of processing securities, enforce DvP for securities transactions, support collateralized intraday liquidity facility in RTGS & support development of the Guyana financial markets | BoG | Banks, Government | Q2 2020 | TBD |
| | 1 | Achieve straight through processing (STP) of interbank retail payments (cheque and credit transfers) | Enhance efficiency & reliability | Banks & BoG | | Q2 2020 | In Process |
| | 1 | Establish an intra-day liquidity facility for the NCCH & EFT systems | Mitigate systemic risk | BoG | Banks | Q2 2018 | In Process |

[8] Phase 1: January 2017 through June 2020.
Phase 2: July 2017 through December 2019.
Phase 3: January 2019 through December 2021.
TBD means 'to be determined'.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **III** | | **Retail Payment Modernization, Access & Use** | | | | | |
| | 1 | Expand accessibility & convenience of access points | Facilitate use of electronic payments | Bank & non-bank PSPs | BoG | TBD | TBD |
| | 1 | Foster merchant acceptance of electronic payments | Foster use of electronic payments | Bank & non-bank PSPs | BoG | TBD | TBD |
| | 1 | Expand consumer outreach | Build consumer awareness & trust | BoG | Government, banks & non-banks PSPs | TBD | TBD |
| | 1 | Fast-track the Visa card solution | Provide interoperability across payment cards. | Banks | | TBD | TBD |
| | 2 | Allow the launch of white-label ATM & POS networks | Expand reach of access points & enhance competition | BoG | | TBD | TBD |
| | 3 | Build interoperable retail payment processing platform to enable interoperability between cards, e-money and other retail payment instruments. | Enhance efficiency & competition, foster the achievement of economies of scale and scope | BoG, banks, non-bank PSPs | | TBD | TBD |
| **IV** | | **Government Payments** | | | | | |
| | 1 | Support adaptation of MOF's IFMAS to generate electronic payment instructions and send them to EFT | Drastically reduce use of cheques for MOF payments, improve service to payees & promote efficiency across the NPS | MOF | BoG & commercial banks | Q3 2018 | TBD |
| | 1 | Support adaptation of IR's TRIPS system to receive electronic notification of tax payments | Improve payment options for taxpayers & promote efficiency in Government financial management | GRA | BoG & commercial banks | Q3 2018 | TBD |
| | 1 | Support adaptation of Customs' planned ASYCUDA system to receive electronic notification of Customs Duty payments | Improve payment options for importers & promote efficiency in Government financial management | GRA | BoG & commercial banks | Q3 2018 | TBD |
| | 2 | Implement & track effectiveness of training programs for recipients of electronic government payments | Build consumer awareness & confidence | Government agencies | BoG | TBD | TBD |
| **V** | | **Securities Clearing & Settlement** | | | | | |
| | 2 | Establish a CSD for government securities (with option to add private sector securities) | Support secondary markets & collateral pledging | BoG | See above, under "Financial Infrastructure Development" | | |
| **VI** | | **Interbank Money Market** | | | | | |
| | 1 | Establish an interbank money market, supported by the linked RTGS and CSD systems (see above) | Enhance liquidity management, transparency in the interbank market, & reduce the risk of contagion | BoG | Banks | TBD | TBD |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **VII** | | **International Remittance Markets** | | | | | |
| | 2 | Enable and foster the use of electronic means to send and receive remittances. | Foster the use of electronic payments and enhance competition | BoG | | TBD | TBD |
| | 2 | Phase out the use of exclusivity agreements in the remittance market | Foster competition in the market | BoG | | TBD | TBD |
| | 3 | Enable the processing of remittance flows in the EFT system and encouraging the use of card and e-money based remittances. | Foster competition, and interoperability | BoG | BoG, Banks & non-bank PSPs | TBD | TBD |
| **VIII** | | **Payment & Settlement System Oversight** | | | | | |
| | 1 | Design & approve an oversight policy framework | Set the objectives & scope of the oversight | BoG | | June 2019 | TBD |
| | 1 | Decide the appropriated allocation for the oversight unit and strengthen the internal capacity thought the adequate staff and training; | Enhance the ability of BoG to conduct effective NPS oversight, guide NPS development and address challenges | BoG | | June 2019 | TBD |
| | 1 | Strengthen data collection mechanisms | Enhance monitoring of NPS developments | BoG | | December 2019 | TBD |
| | 1 | Strengthen analysis & reporting | Enhance monitoring & transparency | BoG | | June 2019 | TBD |
| | 2 | Establish mechanisms for on-site inspections | Enhance monitoring of the NPS | BoG | | December 2019 | TBD |
| **IX** | | **NPS Cooperative Framework** | | | | | |
| | 1 | Establish mechanism to foster active engagement and exchange of view amongst stakeholders on NPS issues, policy and strategy development. | Deepen collaboration & commitment | BoG | NPS Stakeholders | 2019 | TBD |

## The 2017 – 2021 NPS Plan of Action

## I. Legal and Regulatory Reform

72. **The BoG will lead the NPS legal and regulatory reform effort in consultation with the payments industry participants, end-users and other payment industry stakeholders.** The work in this regard will be guided by international standards and guidelines, and will be designed to achieve legal clarity, support payment finality and the efficiency of payment arrangements, facilitate innovation in the payments industry, foster an appropriate balance between competition and cooperation, protect end-users (consumers, as well as merchants and other economic entities), facilitate effective oversight, foster interoperability, implement effective risk-based AML and CFT measures, deter the fraudulent use of payment services, and enable on-going evolution of the NPS.

### Actions

73. **Enact a Robust National Payment System Act (NPSA).** The NPSA will address all key NPS concepts, such as the finality of payments and legality of electronic signatures and documents. It will ensure that BoG has the necessary powers to effectively oversee the NPS, including with respect to consumer protections, and clarify the roles and responsibilities of all participants in the NPS. BoG is leading this effort. BoG is currently revising its draft NPSA to ensure it covers all the key issues in an appropriate manner.

**Phase 1.** **Status:** In Process.

74. **Establish a Body of Regulations to Implement the NPSA.** This body of regulations might include for example, licensing requirements, requirements for the provision of e-money, the participation of non-bank payment service providers (PSPs) and payment system operators (PSOs), changes to the regulations governing remittance services to allow the provision of electronic remittance services and prevent the use of exclusivity agreements, specific reporting requirements, and so on. BoG will lead this effort. BoG is in the process of drafting regulations on electronic fund transfers (EFT) and NPS oversight. Regulations on licensing requirements, e-money, and PSPs and PSOs are also planned.

**Phase 1.** **Status:** In Process.

75. **Ensure that the legal and regulatory framework fosters competition and innovation in the retail payments industry.** This effort will be led by BoG. Initially, this effort will focus on regulatory changes to recognize the legitimate role for non-bank PSPs and PSOs in the retail payments industry and enable the safe and sound participation of non-banks in the industry. In addition, efforts will be undertaken to ensure that licensed non-banks have fair and equitable access to the nation's payment infrastructures (as they are established).

**Phase 1.** **Status:** TBD

## II. Financial Infrastructure Development

76. **The commercial banks, together with BoG, are leading efforts to strengthen Guyana's payments infrastructure.** An initial step in this direction was taken in 2014 with the launch of the automated cheque clearing system. Current efforts are focused on establishing the EFT system for interbank electronic funds, as an extension to the NCCH and implement a means to establish interoperability for domestic card transactions. Other important developments will be to procure and implement linked RTGS and CSD systems.

### Actions

77. **Implement the planned EFT system, building on the existing NCCH.** In consultation with the commercial banks, BoG is planning to implement the ACH solution offered by the supplier of the existing NCCH. This will result in Guyana having an integrated ACH solution by the middle of 2017.

**Phase 1.** **Status:** In Process

78. **Implement an RTGS system with linkages to the CSD (see next action), the NCCH and the EFT system.** As described in Section B (The Role of a National Payments System), the final settlement of large value and high priority payments is the critical element on which the rest of the NPS depends for safety, risk control and efficiency. The BoG will therefore procure and implement an RTGS system which will feature linkages with the NCCH, EFT and CSD (see next item) systems.

**Phase 1.** **Status:** TBD

79. **At the same time as RTGS, implement a closely-coupled CSD system.** The BoG will procure and implement a CSD system to manage the life-cycle of Government securities and replace the CS-DRMS system currently in use. The CSD will manage the issuing, custody and redemption processes for Government securities, including recording changes of ownership on the secondary market. It will be closely-coupled with the RTGS system for: (i) ensuring DvP in securities transactions (on issuance and in the secondary market); and (ii) supporting the collateralized provision of intraday liquidity in the RTGS system.

**Phase 1.** **Status:** TBD

80. **Achieve straight through processing (STP) of interbank retail payments (cheques and credit transfers).** At present the commercial banks have implemented STP with the NCCH for cheques. They will also be required to do the same for the EFT system.

**Phase 1.** **Status:** In Process.

81. **Establish a liquidity facility for the NCCH and EFT systems.** As an interim measure before the RTGS and CSD systems are in place, the BoG will ensure that the supplier of NCCH and EFT implements the liquidity management functionality provided with these software packages. The liquidity management functionality is necessary to mitigate the risk of having to unwind

the underlying payments of deferred net settlements in NCCH and, when it is implemented, EFT, in the event that one or more commercial banks cannot cover a debit position.[9]

**Phase 1.** **Status:** TBD

## III. Retail Payments Modernization, Access & Usage

**82. Cash remains the instrument that is used by consumers and small and medium sized enterprises to meet almost all of their transaction needs.** Government agencies and quasi-governmental entities also rely heavily on cash and other paper-based payment instruments to meet their payment needs. The success of efforts to advance the use of electronic payments for retail transactions will require action on the full range of foundations and catalytic pillars depicted in the PAFI[10] framework and discussed above. Several of the necessary actions will be addressed under the other priority areas, including, for example, the need to strengthen the infrastructure. Here, the focus is on actions that will not be addressed or fully addressed elsewhere. These include actions to expand access, encourage innovation in payment product design, consumer awareness, and leverage specific use cases.

### Actions

**83. Expand Accessibility and Convenience of Points of Access.** Very few options currently exist for adults to use electronic payment instruments. In this regard, it is worth noting that an estimated 77 percent of adults in Guyana have access to the use of a debit card. Yet, the use of debit cards by adults to conduct transactions (as opposed to withdraw cash) is less than one per year for every 20 adults, or 0.04 per adult per year. With fewer than 21 ATMs and 159 POS devices for every 100,000 adults, actual use of the cards is extremely difficult.[11] A concerted effort by BoG and the payment industry will be launched to identify means to expand acceptance of electronic payments. For example, consideration might be given to encouraging or enabling the use of electronic means to initiate remittance and bill payment at agent locations of non-bank PSPs.

**Phase 1.** **Status:** TBD

**84. Develop Approaches to Foster Merchant Acceptance of Electronic Payments.** BoG, the payments industry and other payment sector stakeholders will adopt a collaborative approach to implement this effort. Initially, this effort will focus on gaining a deeper understanding of the factors that deter the acceptance of electronic payments by merchants. Possible reasons might include upfront costs of acquiring POS devices, the cost of maintaining a bank account, the cost of interbank transfers, the absence of viable e-money options, delays in the settlement of electronic payments (and thus, merchant available to their funds), unavailable

[9] The RTGS and CSD systems, once in place, will offer full liquidity management functionality.

[10] Payment Aspects of Financial Inclusion, a publication of the CPMI and the PSDG.

[11] Comparative data is only available for 2014, when Guyana had only 19 ATMs per 100,000 adults. At that time, Nicaragua was the only country in Latin American, amongst those for whom data is available, that had fewer ATMs than Guyana. Countries such as Surinam, Ecuador, Belize, Colombia and Venezuela all had over 40 ATMs per 100,000 adults by 2014. Guatemala, Dominican Republic and Jamaica had over 30 per 100,000 adults. Honduras and Paraguay were the only other countries that had fewer than 25 ATMs per 100,000, and in both cases, they had more ATMs by 2014 than Guyana has now.

or unreliable communication channels, and so on. The next step in this effort will be to identify strategies to address the challenges.

**Phase 1.** **Status:** TBD

**85. Build Consumer Awareness and Confidence in Electronic Payments.** BoG will collaborate with relevant government departments and private sector employers to advance this effort. Initially, this initiative will focus on employees that receive their salaries via direct deposit to card accessible bank accounts or, if relevant, e-money accounts. Employers, including government agencies, will be encouraged to provide on-going employee education on the use of electronic payments, their consumer rights, and consumer compliant mechanisms. In addition, employers will strive to provide access to ATMs and the acceptance of electronic payments at their business locations, including, for example, at employee canteens. Employers will also conduct periodic informal surveys of employees to gauge their satisfaction with the employers' salary direct deposit program, suggestions on how to improve the program, and requests regarding merchant locations where they would like to be able to use their debit cards. The government and BoG will support this effort by supporting the development of consumer education programs and surveys. The commercial banks will support this effort by enabling employers to offer ATM services at their locations and encouraging merchants near those locations to accept card transactions.

**Phase 1.** **Status:** TBD

**86. Allow the Launch of White-Label ATM and POS Networks.** BoG will lead this effort by establishing appropriate regulations to allow non-banks to operate white-label ATM and POS networks. This will stimulate greater competition in the payments acceptance part of the industry and, therefore, provide more options for merchants with regard to payment acceptance devices.

**Phase 2.** **Status:** TBD

**87. Enable inter-operability for all retail payment instruments**. It is highly desirable for all retail payment instruments to be fully interoperable (including interbank EFT payments, card-initiated payments, mobile phone-based payments, remittances, and so on). Interoperability has proved important to the efforts of other countries to advance financial inclusion and the use of electronic payments and financial inclusion, as well as to support the development of a safe, efficient and inclusive national payments system. The BoG will therefore work with all stakeholders towards achieving full interoperability (for example by implementing a national card and mobile payments switch).

**Phase 3.** **Status:** TBD

## IV. Government Payments Modernization.

**88. Government agencies and quasi-government entities face considerable challenges in their efforts to adopt electronic means to disburse and collect payments.** These issues range from the absence of electronic means to conduct interbank transfers of funds, to the lack of ability of some banks to offer straight-through-processing of direct deposits, a lack of in-house knowledge and staffing capacity to manage the transition to electronic payments, and a lack of independent advice on how to structure their agreements with the commercial banks to meet their needs for large volume electronic payments or collections. Government agencies and quasi-government entities may face the additional challenge of securing the resources to transition to internal electronic processing of payment orders, collections and record keeping.

89. **The government also faces the challenge of fostering the use of electronic payment instruments and services made available to the recipients of electronic government payments.** There is a strong tendency of recipients of electronic government payments, especially social benefit payments, to cash-out their funds as soon as the funds are deposited. Payment product design, the availability of points of access to conduct electronic payments and incentive programs can foster greater use of the electronic payment instruments and services made available to the recipients of government electronic fund transfers.

90. **An absence of convenient and reliable means to make electronic payments to the government can pose a significant impediment to the transition electronic payments.** The systems used by PSPs, including commercial banks, to provide reliable services for electronic payments to the government need to have the capacity to capture and transmit key information, such as the taxpayer's ID, the type of tax, the period for which the tax is paid, along with each payment. Coordination between PSPs and the tax authorities (and other relevant government agencies) is necessary in order to enable the PSPs to make the necessary modifications to the payment systems, and in the case of banks, their core banking systems, to capture and pass on such information to the relevant government agencies.

### Actions

91. **Support adaptation of MOF's IFMAS to generate electronic payment instructions and send them to EFT.** Currently the IFMAS prints cheques for payments which are all generated from the Accounts Payable. It is a relatively simple task to convert the cheque printing process to the generation of electronic credit transfer instructions. The BoG will work with MOF to make this happen.

**Phase 1.** **Status:** TBD

92. **Support adaptation of IR's TRIPS system to receive electronic notification of tax payments.** This will require: (i) working with IR and the commercial banks (and other PSPs) to design, agree and develop the necessary technical adaptations to their systems; (ii) agreeing the procedures and protocols for electronic tax payments; and (ii) conducting outreach to business entities and individuals on electronic means to pay taxes, fees and custom duties to the government. The BoG will work with IR and commercial banks (and other PSPs) to ensure the successful implementation of this Action.

**Phase 1.** **Status:** TBD

93. **Support adaptation of Customs' planned ASYCUDA system to receive electronic notification of customs duty payments.** Customs has yet to implement ASYCUDA: the BoG will work with Customs to ensure that the requisite modifications to the ASYCUDA software are included in the implementation of this package.

**Phase 1.** **Status:** TBD

**94. Implement and Track the Effectiveness of Awareness Programs for Recipients of Electronic Government Payments and for the Collection of Government Taxes and Fees.** Government agencies and quasi-government entities will adopt strategies to inform recipients of electronic government payments of the features of their payment instruments, their consumer protections and provide hands-on training on how to conduct transactions with the instruments. Similarly, government agencies that collect funds from the public and small enterprises will develop strategies to inform the public on how to make such payments and confirm that their payments have been received and credited against their payment obligations.

**Phase 2.** **Status:** TBD

## V. Securities Clearing & Settlement

**95. Government securities are an important element of Guyana's financial landscape, with the potential to perform an important role in the development of the NPS and also of financial markets.** The system at present in use at the BoG for managing securities (CS-DRMS) is lacking in a number of important feature in terms of the overall management of securities as noted in Section A (Institutional and Market Structure). This strategy therefore envisages the procurement and implementation of a comprehensive CSD system to manage to entire life-cycle of securities from initial issue (auction) to final redemption and pay-out, including the registration of intermediate secondary market trades and collateral pledges. This system could potentially also service the requirements of the GASCI and include private sector securities and equities (this would need to be discussed and agreed between the BoG and the GASCI).

### Actions

**96. Establish a CSD for government securities (with an option to add private sector securities to the CSD).** This action is defined and discussed under II above (Financial Infrastructure Development).

**Phase 2.** **Status:** In Planning

## VI. Interbank Money Market

**97. Interbank money markets play an important role in a NPS**. They facilitate liquidity management, enhance transparency with respect to interbank lending, and provide a valuable tool for the implementation of monetary policy. The current bilateral lending practices can take time to arrange. They also fail to provide BoG and the commercial bank with information on the rate the intraday or overnight lending is taking place, as well as important information on the demand for funds.

### Actions

**98. Establish an interbank money market.** Once the RTGS and CSD are in place, the establishment of an interbank money market can be fairly straight forward. The CSD provides a means to pledge government securities as collateral for an interbank loan and the RTGS provides the means to transfer the funds from one bank to the other. A trading platform would be the only piece missing.

**Phase 1.** **Status:** TBD

## VII. Remittance Market Reform and Integration

99. **The remittance industry falls short of meeting the needs of remittance customers in a cost-effective manner and, given the industry's isolation from the rest of the financial sector, currently offers limited potential to serve as a gateway to financial inclusion or the use of transaction accounts.** The factors contributing to this situation are deep-seated and hard to address. Key among these is the lack of competition in the remittance industry. Others include the lack of interoperability across remittance services, the lack of innovative and electronic payment options, and, for domestic remittances, the absence of a legal and regulatory framework to govern the industry. Even without these constraints, the relatively low level of development of Guyana's broader retail payments industry creates a drag on the remittance market. Here, the focus is on actions that will not be addressed or fully addressed elsewhere in the Plan of Action. These include actions to enhance completion, encourage innovation in remittance product design, and foster integration with the broader retail payments industry.

### Actions

100. **Phase out the use of exclusivity agreements in the remittance market.** In Guyana, exclusivity agreements bind agents to one super-agent, and each super-agent to one international MTO. Given the limited number of potential agents, particularly in less populated areas, the agreements severely limit the ability of the RSPs to expand their agent networks and their incentive to do so. It also makes extremely difficult for new RSP to enter the market. Globally, the elimination of the use of exclusivity agreements has been instrumental to efforts to lower the cost of remittances and enhance the quality of remittance services. A plan will be developed to phase out the use of exclusivity agreements in Guyana over the next two to three years.

**Phase 2.** **Status:** TBD.

101. **Enable and foster the use of electronic means to send and receive remittances.** MTOs and domestic RSPs will be allowed and encouraged to work with the commercial banks and authorized non-bank PSPs to enable remittance customers to use their bank and/or e-money accounts to send and receive remittances. Just as is the case for cash remittances, appropriate KYC and anti-money laundering and counter financing of terrorist measures (AML/CFT) measures will be required for electronic remittance services. The use of electronic

**Phase 2.** **Status:** TBD

102. **Enable the processing of remittance flows in the nation's interoperable retail payments platform, if such a platform is built.** In the context of efforts to strengthen interoperability in

the retail payments market, BoG and payment system stakeholders will explore avenues means to integrate the remittance market with the broader retail payment industry. Doing so will help advance the development and use of electronic payments for conducting all retail payments, including remittance transaction. Ideally, if a decision is made to introduce an interoperable retail payments platform, qualified remittance service providers will be able to use the platform. Such an arrangement could eliminate the need for RSPs to negotiate bilateral agreements with every bank and non-PSP to enable electronic deposit of remittance funds directly into a transaction account, or use that transaction account to initiate a remittance payment.

**Phase 3.** **Status:** TBD

## VIII. Oversight Enhancement and Capacity Building

**103. A comprehensive oversight framework is needed to ensure safety and efficiency of payment and settlement systems.** This framework should include the objectives of the oversight, the scope, the activities and a set of tools that will be used for the exercise of the function.

**104. Objectives of the oversight should focus on the safety and efficiency of the payment and settlement systems operating in Guyana.** Safety refers to the adequate manage of risks. A system should first identify and understand the types of risks that arise in or are transmitted by the system and then determine the sources of these risks. Once these risks are properly assessed appropriate and effective mechanisms should be developed to monitor and manage them. Efficiency refers generally to the use of resources by systems and their participants in performing their functions.

**105. The scope should focus on the technical infrastructure, system rules and procedures, contract arrangements among participants and all aspects that can affect the risk of the systems under the oversight.** The scope should also include payment instruments and payment services providers. The scope of the oversight should as a priority include systematically important payment systems.

**106. There are two different types of activities**: (i) Monitoring activities through which the BOG monitors the everyday operations of the systems and runs all review for abnormalities and sources of risk; (ii) Ongoing research and analysis activities on payment-system-related issues ranging from operational to institutional, technological, and long-term development areas of interest.

**107. The implementation of the function will require a set of tools.** It is recommended that BOG considers the following tools: (i) Collecting, processing and analysing data and other information; (ii) Issuing Regulations; (iii) On –site inspections; (iv) Policy dialogue and cooperation.

### Actions

**108. Design and approve an oversight policy framework, as described above.**

**Phase 1.** **Status: TBD**

109. **Strengthen BoG's NPS oversight function and capacity.** BoG should establish a unit dedicated exclusively to NPS oversight. The staffing, training and technical resources of the unit should be adequate to enable the unit to carry out its function. The placement of the unit within the organizational structure of the BoG should provide sufficient independence from units operating the BoG's payment systems and facilitate collaboration within BoG on broader policy and oversight operations.

**Phase 1.** **Status: TBD**

110. **Strengthen data collection mechanisms.** The oversight function requires the establishment of a work routine and the design of internal procedures. Such formal procedure also allows subsequent internal controls. Suggested steps for data collection are: (i) definition of information needs; (ii) compile information; (iii) information management; (iv) production of statistics and analysis; (v) reporting; (vi) design and monitoring of action plans.

**Phase 1.** **Status: In Process**

111. **Strengthen analysis & reporting.** The production of statistics and indicators are dynamic processes that must be constantly reviewed. A set of statistics and metrics depending on the objective of the analysis should be produce, those statistics are related to: (i) Monitoring of NPS´s operations: The statistics should contain details of the performance of each of the participants and administrators for each system and; (ii) Monitoring the NPS´s Operators; The objective is to have a database of the governance structure of the systems.

**Phase 1.** **Status: In Process**

112. **Establish mechanisms for on-site inspections.** Throughout on - site inspections the BoG can make a full assessment of the systems and payment service providers that are under the scope of oversight. To conduct inspections the Oversight Unit should: (i) be supported by a comprehensive regulatory framework that gives powers to conduct inspections, (ii) have cooperative arrangements with other departments of the BoG and (iii) have the staff trained in this type of activity

**Phase 2.** **Status: TBD**

## IX. Stakeholder Engagement and Cooperation

113. **The BoG recognizes the importance of working with the payments industry and the users of payment services to address challenges and advance the development of the NPS.** Such cooperation and engagement is critical to efforts to identify needs, build consensus and align strategies with market realities.

### Actions

114. **Establish mechanisms to foster active engagement and exchange of views amongst stakeholders on NPS issues, policy, and strategy development.** Regulations should be complemented by the overseer's capacity to maintain a continuous policy dialogue with all the actors of the payment system, including users. Cooperation between the overseer and other regulatory authorities or departments inside the BoG should be formalized to guarantee

the mutual exchange of information and the action coordination necessary for each agency to intervene promptly and appropriately, when necessary.

**Phase 1.** **Status: TBD**

## A. Implementation Challenges & Risks

**The institutional capacity risk for implementation is moderate**. The main risks relate to capacity of the BoG to effectively discharge its responsibilities for the new payment infrastructures and operating as a PIU for the project. In order to mitigate these risks, Project Component 2 is financing technical advisors to support the BoG. Inter alia this would include: operational management of RTGS, CSD, IT components and system integration by the Government of Guyana. The Project will train PIU specialists on procurement and financial management policies. The World Bank specific financial management training will be an additionality to the well-established internal control environment already existing at the Bank of Guyana, confirmed by the WB financial management assessment. As these systems will offer new payment functionalities, there will be a learning curve for both the authorities and the banks.

# Annex A: Guyana 2030 National Payments System Vision

115. **Over the longer term, BoG seeks to establish a modern and robust NPS that serves, in a comprehensive manner, the full range of needs of the Guyanese economy**. The 2030 Vision defines BoG's overall objectives for the NPS, as well as its aspirational goals for each of the nine pillars of a robust NPS. The 2030 NPS Vision serves as reference point for the development of the NPS 2017-2021 strategy and plan of action. Care has been taken in the developing the 2017 – 2021 Strategy to ensure that its goals and planned actions are consistent with the 2030 NPS Vision. As such, the 2017-2021 Strategy can be viewed as the first plan of a series of three to five-year implementation plans to realize the 2030 NPS Vision. For each of the nine pillars, the following briefly outlines the desired future state of the NPS in Guyana and highlights actions that will need to be undertaken to achieve that future state.

## Pillar I: The Legal Framework

**Objective:** Payment systems in Guyana work in a sound and robust legal environment that supports settlement finality and the efficiency of payment arrangements

116. **The BoG will proactively work to strengthen the legal and regulatory environment for the NPS. A legal team will be formed between the BoG and the Solicitor General's office to address all pending issues and draft the proposed legislation.** The team will be supported by a legal expert from the World Bank.

117. **The BoG will strongly support and encourage, as fundamental to stability and efficiency, legislation on:** (1) clearing and settlement of payment and securities transactions, including rules on collateral; (2) payment system oversight; (3) electronic transfers, to permit full recognition of modern ways of payment and ensure legal protection for them, and to support interoperability; (4) regulation of remittance service providers; and (5) dematerialization and immobilization of securities, depository and custodian function.

118. **Any pieces of legislation, including the rules and regulation of all systems, will be discussed with other stakeholders.** The overall objective is to reach a general agreement on a coordinated body of legislation where each of the stakeholders plays its role, with all relevant primary and secondary legislation, as well as banking agreements, being in place.

## Pillar II: Settlement Mechanisms for Large Value and Time Critical Payments

**Objective:** Safe, efficient and robust settlement mechanisms for large value and time critical payments are in place and fully complaint with the CPMI-IOSCO Principles for Financial Market Infrastructures.

119. **In order to achieve this goal, a modern Real Time Gross Settlement (RTGS) facility will be put in place**. The RTGS will serve as the backbone of the modernized National Payments System in Guyana. The system will be owned and operated by BoG.

**120. The system will have clear rules and procedures, which will specify all the tools for managing legal, financial, liquidity, and operational risks.** These will include, for example: the provision of queuing mechanisms and queue optimization mechanisms; agreement with system participants on efficient operating hours; the establishment of sound and efficient interconnections among the systems and clear settlement cut-off times for ancillary systems; and the creation of routines for channelling government payments early in the operating day. The system will provide functionality for collateralized intraday credit.

**121. To support intraday liquidity needs of participants, the BoG will provide an intraday liquidity facility to system participants, and continue to allow banks to use their reserve balances held at the central bank.**[12] In a related move, the BoG will promote the development of the intraday repo market.

**122. The design of the system will include:** 1) Robust and efficient communication network between the BoG and system participants, which will reduce and eventually eliminate the use of manual and paper-based procedures; 2) The enforcement of strict security measures both for physical and electronic access to the system; 3) Implementation of contingency plans and disaster recovery mechanisms, including a secondary processing site; and 4) Implementation of measures for business continuity and resilience across the NPS. These features of the system will be designed, in accordance with the specific situation of the Guyana.

## Pillar IV: Government Payments

**Objective:** Government collections and disbursements are fully and efficiently integrated with the NPS and conducted via electronic channels.

**123. Together, the Government and the BoG will evaluate the current arrangements for government payments with a view to ensuring that full advantage is taken of the modernized National Payments System, taking into account the fact that government transactions form a significant percentage of all transactions in the system.** The bulk of collection and disbursements of the public sector will be executed electronically. This is to ensure that all the benefits of the payments reform will be accrued by all segments in Guyana through increased efficiency in the payments flow. This process will also facilitate any reforms that might be seen as desirable in the public accounts system.

**124. The gains in efficiency and cost reductions for government payments will be among a key outcome of the overall modernization effort.** This will enable the government to recover the investment cost in the system modernization in a relatively short period. Importantly, a shift of government payments into electronic form could provide the critical mass necessary to stimulate wide scale adoption of electronic payment instruments and new systems.

[12] The reserve accounts, which primarily serve prudential and monetary policy purposes, face minimum balance requirements. These minimum balances drive demand and supply in the interbank money market.

## Pillar III: Retail Systems

**Objective:** Retail payment systems in Guyana are efficient, sound, interoperable and inclusive. The systems will support the offer of a wide range of electronic payment instruments and services

125. **The BoG will play a role in retail systems both as settlement agent, operator, participant, overseer, and as catalyst for the change.** The overall objective is to provide the Guyana economy with a broad range of safe and efficient payment services.

126. **An Automated Clearing House (ACH) will operate in Guyana for small value and non-time critical interbank electronic payments.** The system will be designed efficiently to accelerate the move towards electronic payments, reduce the systemic importance of cheques, and reduce the usage of cash.

127. **Financial risks in the ACH will be minimized by proactively moving large value payment to the RTGS system and possibly considering the introduction of limits, requiring banks to maintain minimum balances, or introducing a collateral pool**. The establishment of settlement assurance procedures, such as cost sharing arrangements or a guarantee fund, and its associated costs, will be studied in terms of the level of "systemic importance" of the ACH.

128. **The BoG will draft rules and regulations for the ACH. In particular, the following items will be covered:** i) definition and characteristics of the system(s); ii) access criteria; iii) risk management mechanisms; iv) operational instructions including sanctions to be applied in case of non-compliance; v) responsibilities of the ACH and system participants; vi) controls to be performed; vii) message structures; viii) contingency arrangements; ix) interchange fees; and x) resolution of conflicts.

129. **The BoG will ensure that system rules guarantee fair and open access criteria that are balanced with potential financial and operational risk.** Direct participation in the ACH component will be allowed for all commercial banks in Guyana. In order to enable licensed non-bank PSPs to meet the needs of their customers in an efficient manner, the BoG will assess the possibility of allowing direct participation of such entities, provided: (i) they are regulated by the BoG and (ii) they comply with operational, security, and financial risk management requirements of the system.

130. **The system operator(s), including the BoG, will establish a dialogue with the major stakeholders, through the creation of effective User Groups and through the NPC.**

131. **Other financial or non-financial entities may operate retail systems, for example, for payment cards or e-money, or provide retail payment services.** In this regard, the BoG will play a catalyst role for the implementation of safe, efficient and interoperable systems. All retail payment systems will be overseen by the BoG (see Pillar VIII) in terms of their safety and efficiency, with appropriate instruments depending on the level of risk they introduce to the financial system.

132. **The BoG will promote a high degree of interoperability of all retail payment systems (e.g. ATM, EFTPOS, mobile, internet, and others that might be developed in the future) and high efficiency in terms of their clearing cycles.**

133. **Effective fraud-prevention and detection measures will be put in place for all retail systems and fraud occurrences in all payment flows will be monitored to ensure they are acceptably low.** An important objective will be to establish appropriate mechanisms of customer protection for all the systems.

## Pillar V: Securities Depository, Clearing and Settlement Mechanisms

**Objective:** Securities Depository, Clearing and Settlement. Securities Depository, Clearing and Settlement are safe and efficient, fully comply with the CPMI-IOSCO Principles for Financial Market Infrastructures, and support the development of capital markets

134. **The BoG will acquire and install an automated CSD system for government securities.** The development of an automated CSD for Guyana's nascent securities market will replace the security registry function of existing CS-DRMS system,[13] which also manages T-bill auction process. It will also facilitate the emergence of an efficient government bond market. The CSD will be tightly coupled with the RTGS component of the ATS (see Pillar II) for the purpose of (i) implementing DvP settlement for securities transactions, thus, eliminating principal risk, and (ii) supporting BoG's intraday liquidity facilities in the RTGS system.

135. **Instruments used to settle the 'cash' leg of securities transactions between CSD members will carry little or no credit or liquidity risk.** For this purpose, the BoG strongly favours the use of central bank assets for settlement of securities transactions.

136. **All securities will be issued in a book-entry form.**

137. **The BoG will initiate the adoption of legal measures covering dematerialization and immobilization of securities, custody services (see Pillar I), as well as the operational role of the BoG as a CSD for government securities.** The BoG will develop a regulatory and oversight framework for the CSD for government securities. This will be conducted via consultation with other stakeholders, particularly the Treasury/Ministry of Finance and the commercial banks.

138. **The BoG will work with any future securities market regulator and market participants to ensure that the settlement of transactions with corporate securities is linked with funds settlement to enable securities transactions to be settled on a DvP basis, thus, eliminating principal risk.** The BoG will promote the establishment of a CSD for corporate securities that complies with international standards. Having only one CSD for all types of securities is strongly recommended for an economy the size of Guyana.

139. **The BoG will cooperate with the Securities Council, the securities market regulator, in the development of a regulatory and oversight framework for the securities depository and**

[13] The CSD_DRMS manages T-bill auction process and records the ownership of such T-bills, but it does not record changes in ownership in the secondary market.

**settlement systems.** This will be done through formal cooperation arrangements (e.g. a Memorandum of Understanding) between the parties (see Pillar IX below).

**140. Governance arrangements for the depository need to permit fair and open access, and provide market participants with sufficient information for them to accurately identify and evaluate the associated risks and costs. A strong, capitalized, autonomous and independent depository, with reliable and flexible systems** to expedite settlement of transactions and accessory rights is crucial for the development of the secondary market.

## Pillar VI: Interbank Money Market

**Objective:** Interbank money markets are fully developed and closely integrated with settlement systems

**141. The BoG will adopt the necessary measures to develop a robust interbank money market. The interbank money market is an important element for liquidity management and its improvements will be undertaken in parallel to those of payment and settlement systems.** Procedures, settlement cycles, and operating hours will be designed to maximize benefits. In addition to establishing safe and efficient payment systems, securities clearing and settlement systems and CSDs (see Pillars I and V), such measures will include the development of the interbank repo market and securities lending operations. In this context, the legal, regulatory and oversight framework for repo and securities lending operations will be developed.

## Pillar VII: International remittances

**Objective:** International remittances and other cross-border payments are distributed rapidly and conveniently in Guyana, and are cost efficient from the perspective of end users

**142. The BoG will work with the market to ensure that international remittance services in Guyana comply with the CPSS-WB General Principles and become fully integrated with the NPS.** The BoG will cover this area as part of its payment system oversight activities. A major goal will be to promote the most efficient use possible of the existing and envisaged payment infrastructure in Guyana, including that of banks and non-bank institutions. Given the potential to leverage the broader retail payments infrastructure, no new systems are envisioned for the provision of remittances services alone. The BoG will undertake a stocktaking exercise vis-à-vis the General Principles and will identify in detail the specific actions to be taken to leverage the domestic infrastructure to enhance remittance services once the ATS is implemented.

**143. The BoG will ensure that the regulatory perspective covers payment system issues, in particular efficiency, transparency and risk management in addition to "traditional" issues of balance of payments and money laundering.** The proposed NPS Law and implementing regulations will articulate BoG's role in oversight of providers of remittance services. Eventually, in coordination with other authorities, the BoG will decide whether other regulations are necessary to foster a safe and efficient provision of remittance services and protect customers.

## Pillar VIII: Oversight of the National Payments System.

**Objective:** The oversight and supervisory framework for payments and securities settlement systems is clearly defined, and the BoG exercises its oversight authority effectively in cooperation with other regulators and supervisors

144. **The BoG will exercise effectively the function of payments oversight in Guyana**. To this end, the BoG will seek appropriate legal empowerment to underpin its oversight function. In this regard, it is important to note that the provision of Bank of Guyana Act that grants payment system oversight responsibility, section 62, fails to provide clarity on the definition of the 'payment system.' Legal clarity on this is necessary to establish the scope of BoG's jurisdiction with respect to the payments landscape.

145. **The BoG will have a clear legislative authority for the oversight of payment and settlement systems.** The law will provide the BoG with the legal authority to ensure the development and operation of payment mechanisms that effectively contribute to the integrity, efficiency and safety of all financial markets and the operation of monetary policy (see Pillar I).

146. **The BoG will disclose publicly its objectives and policies relating to all significant payment system matters along with its implementation strategies.**

147. **With regard to policy objectives, the BoG will aim at achieving efficiency and reliability for all systems.** The BoG will also promote competition in the payment services market and the protection of consumer interests in coordination with other authorities.

148. **The BoG will oversee all clearing and settlement arrangements in Guyana, including retail systems, given the importance of these infrastructures in supporting economic activity and the public trust in money.**

149. **The BoG in exercising its oversight role will have the ability to carry out this function effectively.** To this end, the BoG will:

i) Establish appropriate organizational arrangements and staffing, including staff training and rotation; The oversight function will be assigned to a unit within the BoG separate from the units in charge of operating any payment systems offered by the BoG;

ii) Ensure that an adequate degree of participant co-operation exists and is sufficient to promote and realize the desired organizational and operational arrangements;

iii) Verify that individual payment systems satisfy user needs as well as risk and efficiency requirements through appropriate interventions both at the development stage and during the on-going system implementation and operational phases;

iv) Define and implement appropriate actions should participants not comply with published rules and regulations (e.g., the application of pre-determined penalties and sanctions for compliance failures); and

v) Collect and distribute relevant statistical information to demonstrate the use being made of each system and the extent to which the systems are satisfying end-user and other market needs. Information and public policy statements relating to all substantial payment system matters will be disclosed in a manner that assures wide dissemination among payment system stakeholders).

## Pillar IX: Cooperative framework for the payments system.

**Objective:** Effective, structured and fruitful cooperation is in place for the NPS

**150. The BoG, as payment system overseer, will evaluate, identify, and implement the procedure and process changes necessary to address weaknesses or inconsistencies in the regulatory arrangements and assure a high level of cooperation in the way that policies are implemented.**

**151. A National Payments Council (NPC), which will lead the payments system modernization project, is expected to evolve into a permanent body.** As such, the NPC will serve as a body for on-going high-level cooperation and consultation in the area of payment and settlement systems and services under the leadership of the BoG. The Terms of Reference of the NPC (a Model for NPC Terms of Reference is provided in Annex 4) will ensure clear tasks and responsibilities, appropriate level of representation, and expanded membership to include all relevant stakeholders. This body is intended to include high-level representatives of all commercial banks and other major stakeholders with an interest in payments and securities clearing and settlement systems improvements, such as the Government/ Accountant's General office, payment service providers, payment system operators, and the Securities Council. The NPC will be an extremely useful tool to secure constructive discussion among them. As the payment systems, instruments and financial markets develop, the NPC will expand to include other relevant regulatory bodies.

**152. The NPC can create subgroups/task forces to address problems of common interest at technical level in specific areas (for example, retail payment systems, large value payment system, securities settlement systems, operational and IT security, legislation) or for implementation of specific projects.** Appropriate memoranda of understanding will be prepared between regulators, the BoG, and the Government.

**153. The communication strategy for the reform objectives and policies and for any issues related to the payments and securities settlement systems, as well as the different roles to be played by Council members in this effort, will be defined cooperatively.**

## Annex B. The Nine Pillars of a Robust National Payment System

### Pillar I: The Legal Framework

**1. A sound and appropriate legal framework is the foundation for a sound and efficient payment system.** The legal environment should include the following: (1) laws and regulations of broad applicability that address issues such as insolvency and contractual relations between parties; (2) laws and regulations that have specific applicability to payment systems (such as legislation on electronic signature, validation of netting, settlement finality); and (3) the rules, standards and procedures agreed to by the participants of a payment system.

**2. The legal infrastructure should also cover other activities carried out by both public and private sector entities.** For example, the legislative framework may establish clear responsibilities for the central bank or other regulatory bodies such as oversight of the payment system or the provision of liquidity to participants in these systems. Finally, relevant pieces of legislation that have an impact on the soundness of the legal framework of the payment system include: law on transparency of payment instruments' terms and conditions; antitrust legislation for the supply of payment services; and legislation on privacy.

**3. While laws are normally the most effective and appropriate means to achieve these objectives, in some cases regulation by the overseers might be needed to address developments in a rapidly changing environment**. In other cases, agreements among participants might be adequate; in such cases, an appropriate professional assessment of the enforceability of these arrangements is usually required. Since the NPS typically includes participants incorporated in foreign jurisdictions, or the payment system might operate with multiple currencies or across borders, it may be necessary to address issues associated with foreign jurisdictions.

**4. Similar considerations apply to securities settlement systems (SSS).** The reliable and predictable operation of a SSS depends on: (i) the laws, rules, and procedures that support the holding, transfer, pledging, and lending of securities and related payments; and (ii) how these laws, rules, and procedures work in practice that is, whether system operators, participants, and their customers meet their obligations and can enforce their rights.

**5. If the legal framework is inadequate or its application uncertain, it can give rise to credit or liquidity risks for system participants and their customers, and under some circumstances, to systemic risks to the financial system as a whole.** A variety of laws and legal concepts can affect the performance of securities clearing and settlement systems. Inadequate contract laws, company laws, bankruptcy and insolvency laws, custody laws and property laws may impede the performance of a clearing system. The general need is to have a legal basis that is able to accommodate technological advances and, in this way, does not constitute a constraint for the operation or future development of the system. Key aspects of the settlement process that the legal framework should support include: enforceability of transactions, protection of customer assets (particularly against insolvency of custodians), immobilization or dematerialization of securities, netting arrangements, securities lending (including repurchase agreements and other economically equivalent transactions), finality of settlement, arrangements for achieving delivery versus payment, default rules, liquidation of assets pledged or transferred as collateral, and protection of the interests of beneficial owners.

**6. The rules and contracts related to the operation of the SSS should be enforceable in the event of the insolvency of a system participant, whether the participant is located in the jurisdiction whose laws govern the SSS or in another jurisdiction.**

## Pillar II: Settlement Mechanisms for Large Value and Time Critical Payments

**7. Systems to process large value and time critical payments are the most significant component of the national payments system**. They are defined as systemically important payment systems (SIPS), because they can generate and transmit disturbances of a systemic nature throughout the financial sector. In order minimize these systemic risks, several measures need to be adopted, depending on the nature of the large value system. For systems characterized by a deferred net settlement of payment transactions, a set of specific risk control measures need to be adopted. These measures include the introduction of bilateral and multilateral caps, the implementation of loss-sharing agreements, and the pledging of collateral to cope with the inability of one or more participants to pay.

**8. Real Time Gross Settlement Systems (RTGS) offer risk management advantages over deferred net settlement systems for large value funds transfers.** RTGS systems offer a powerful mechanism for limiting settlement and systemic risks in the interbank settlement process, because they can affect final settlement of individual funds transfers on a continuous basis during the processing day. In addition, RTGS systems can contribute to the reduction of settlement risk in securities and foreign exchange transactions by facilitating the delivery-versus-payment (DvP) and payment-versus-payment (PvP) mechanisms.

**9. Variants of the basic RTGS system, so called hybrid systems, which take into account liquidity saving features that exist in net settlement systems, are being introduced in some countries**. In jurisdictions that do not already have an ACH infrastructure, an integrated hybrid model known as the automated transfer system (ATS) can be used. This model integrates gross settlement and deferred net settlement (DNS) functionality in one system. It also supports real-time transaction initiation in single transaction mode and supports bulk mode.

## Pillar III: Retail Systems

**10. The safe and efficient use of money as a medium of exchange in retail transactions is particularly important for the stability of the currency and the foundation of the trust people have in it**. The design of the retail payments systems affects the soundness of financial institutions and the efficiency with which an economy functions. Typically, in a market economy, a wide range of payment instruments is needed to support the diverse retail payment needs of customers. A less than optimal supply of such payment instruments may ultimately constrain economic development and growth.

**11. Attention in the retail payments market has shifted increasingly to innovative retail payment instruments and mechanism.** These have emerged in both high and low income countries to address local market needs. Electronic-money instruments, internet, and mobile payments support an expanding range of payment services, including person-to-person transfers, bill payments, and basic deposit and withdrawal activities.

**12. Developments in retail payments have enhanced the scope, efficiency, and scale of existing payment systems and instruments**. These developments also have the potential to expand access and usage of existing payment instruments by increasing the accessibility of service points and introducing new lower-cost business models.

**13. In 2012, the World Bank published a report to support efforts to advance retail payment development.** The report, *Developing a comprehensive national retail payments strategy*,[14] provides public authorities and market participants with detailed guidance on how to develop and implement comprehensive and strategic retail payment system reform. These guidelines are presented in Box 1.

[14] *The World Bank, Developing a comprehensive national retail payments strategy, October 2012.* *http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/Retail_Payments_Strategy_June2013.pdf*

### Box 1: Retail Payments: Developing a Comprehensive Retail Payments Strategy

**Developing a Comprehensive Retail Payments Strategy, World Bank, October 2012**

In 2012, the World Bank Payment Systems Development Group published a framework it developed to provide guidance for countries seeking to develop and implement a comprehensive retail payments strategy. The Framework reflects the synthesis of the studies by the World Bank, the CPSS, and other international and national bodies, as well as the worldwide experience of the World Bank in supporting payment systems reforms in over 100 countries.

The comprehensive Framework builds a case for expanding the range of public policy goals with respect to retail payments to include, in addition to the general overarching goals with respect to broader National Payment Systems, a set of objectives associated specifically with retail payments.

**At a minimum, the Framework recommends the following public policy goals:**

(i) *Promote affordability and ease of access to payment services;*

*(ii) Promote development of efficient infrastructure to support development of payment instruments and mechanisms to meet retail payment needs; and,*

*(iii) Promote socially optimal usage of payment instruments.*

**The Framework offers the following set of guidelines to support the achievement of the policy objectives:**

- ***Guideline I:*** *The market for retail payments should be transparent, have adequate protection of payers and payees' interests, and be cost-effective.*
- ***Guideline II:*** *Retail payments require reliable underlying financial, communications, and other types of infrastructure; these infrastructures should be put in place to increase the efficiency of retail payments. These infrastructures include an inter-bank electronic funds transfer system, an inter-bank card payment platform, credit reporting platforms, data sharing platforms, large value inter-bank gross settlement systems, availability of robust communications infrastructure, and also a national identification infrastructure.*
- ***Guideline III:*** *Retail payments should be supported by a sound, predictable, non- discriminatory, and proportionate legal and regulatory framework.*
- ***Guideline IV:*** *Competitive market conditions should be fostered in the retail payments industry, with an appropriate balance between co-operation and competition to foster, among other things, the proper level of interoperability in the retail payment infrastructure.*
- ***Guideline V:*** *Retail payments should be supported by appropriate governance and risk management practices.*
- ***Guideline VI:*** *Public authorities should exercise effective oversight over the retail payments market and consider proactive interventions where appropriate.*

*Source: WB Developing a comprehensive National retail payments strategy, October 2012*

## Pillar IV: Government Payments

**14. In all countries, the public sector is a heavy user of the payment system.** The government receives and remits payments for a wide variety of purposes (for tax collection, salaries, purchase of goods and services, etc.). In many countries, the public sector has lagged behind the private sector in terms of efficient use of payment instruments and has failed to reach an efficacious integration with the National Payments System. In recent years, more and more attention has been devoted to this issue and, in some countries, the government has been able to use efficiently the options offered by new technologies (Automated Clearing House, smart cards, etc.).

## Pillar V: Securities Depository, Clearing and Settlement Mechanisms

**15. Securities markets are of significant importance to the functioning of a nation's financial system, its depth, and stability.** Securities, especially government securities, are used extensively to carry out monetary policy through open market operations. In addition, securities settlement systems are essential for the timely delivery of collateral for payments and other purposes. Sound and efficient procedures for the settlement of securities are, therefore, an essential element for the development of the financial markets.

**16. The reliable and predictable operation of a Securities Settlement System (SSS) depends on** (i) the laws, rules, and procedures that support the holding, transfer, pledging, and lending of securities and related payments; and (ii) how these laws, rules, and procedures work in practice, that is, whether system operators, participants, and their customers can enforce their rights. If the legal framework is inadequate or its application uncertain, it can increase credit or liquidity risks for system participants and their customers, and create systemic risks for financial markets as a whole.

**17. The safety and reliability of the securities settlement system is paramount from a participant and a regulatory perspective and should be given specific attention.** The settlement process exposes market participants, and clearing and settlement systems to a variety of risks. The system should be designed to minimize these risks. The immobilization or dematerialization of securities reduces or eliminates certain risks. The transfer of securities by book-entry is a precondition for the shortening of the settlement cycle for securities trades, which reduces replacement cost risks.

**18. The major settlement risk in SSS is counterparty risk (credit/principal risk). DvP is one of the primary means by which a market can reduce the risk inherent in securities transactions.** The DvP concept seeks to eliminate principal risk from securities transactions by ensuring that sellers give up their securities if, and only if, they receive full payment and vice versa. There are three essential elements in a DvP transaction: (a) good and irrevocable delivery of securities, (b) final and irrevocable transfer of funds, and (c) simultaneous exchange.

**19. There are a variety of risk management procedures to reduce market risk and strengthen a DvP mechanism.** Those procedures include admission standards, member's creditworthiness monitoring, novation, participation funds, collateral, margins, buy-ins and sell-outs, net debit caps, bilateral credit limits and loss sharing arrangements. Most settlement systems use more than one procedure to minimize market risk. In addition, there are a number of mechanisms designed to improve the settlement process. Among them are central lending facilities, pledge recording facilities, and prompt re-registration procedures. Properly regulated securities lending and borrowing can bring significant benefits to a market and its users, and thus, foster more liquid markets. Short selling can be a useful mechanism to add liquidity. However, when short selling is permitted, regulation must guard against manipulative practices, including those associated with a significant short position.

**20. Finality of payments and securities ownership transfer is crucial to the development of a securities market.** In the absence of finality, market activity will only thrive amongst known parties, typically through well-established client relationships and the confidence that this provides. New investors, including foreign investors, will lack the confidence necessary to participate in such a market. Payments finality, and the safety and soundness of the market, are critical to efforts to attract broader market participation.

**21. The health of the securities settlement bank is also important.** The failure of the bank that provides cash accounts to settle payment obligations for Central Securities Depository (CSD) members could disrupt settlement and result in significant losses and liquidity pressures. Use of the central bank of issue as the single settlement bank may not, however, always be practicable. In such cases, a private bank might be used as the single settlement bank and steps must be taken to protect CSD members from potential losses and liquidity pressures that would arise from its failure.

**22. Regarding regulation and oversight by the authorities, a specific allocation of responsibilities for the supervision of securities clearance and settlement is important.** However, in most cases, this function is performed together with the general supervision function of the participant entities without any special attention being given to clearance and settlement issues. There is a trend towards regulatory oversight policy being implemented at two levels that is substituting for traditional direct supervisory activity. The regulator conducts the oversight of the activities of the CSDs and the exchanges (which function as Self-Regulatory Organizations (SROs)), while these institutions perform the same function with regard to their participants.

**23. A securities regulator should have the authority to license central clearinghouses and CSDs (System Operators) as SROs, review their operating rules and decide whether to approve those rules.** As an SRO, a system operator should have the authority to make and enforce rules on its participants. The securities regulator should have the power to issue the guidelines that system operators should follow. In addition, the securities regulator should assure that the rules and procedures issued by SROs permit a sound and effective operation of the system and provide fair access to all market participants. The securities regulator should also have the authority to conduct periodic inspections, require the production of periodic reports and enforce the securities laws and regulations. Mutual cooperation between the securities regulator and the central bank as well as their cooperation with other relevant authorities is important to the achievement their respective policy goals.

**24. It is widely accepted that a securities market should be supported by the CSD with the broadest possible industry participation.** Admission should be open to all qualified market participants needing access to the CSD. Membership standards for system operators should be established in order to minimize risk. Certain minimum standards of financial responsibility, operational capacity (including system security and integrity), experience and competence should be prescribed for participation in the systems. Mandatory capital requirements for participants are the first safety net to mitigate against participant failure and, thus, an important risk management tool. However, these requirements are frequently established for reasons other than clearance and settlement, and a system operator should have the authority to impose higher financial standards on its members/participants if the general requirements do not cover adequately the perceived risks. The rules for clearing and depository organizations should avoid unfair discrimination concerning the admission of participants or among participants in the use of the system. The rules should provide fair procedures for review of decisions concerning denials of access. In addition, the system should provide participants with a meaningful opportunity to participate in the administration of the organization's affairs.

**25. No single set of governance arrangements is appropriate for all institutions within the various securities markets and regulatory schemes.** However, an effectively governed institution should meet certain basic requirements. Governance arrangements should be clearly articulated, coherent, comprehensible, and fully transparent. Governance arrangements should therefore seek to minimize the conflicts between the objectives of owners, users, and other interested parties, and as far as possible to resolve any conflicts that emerge efficiently. Participants should have access to relevant information concerning the risks to which they are exposed, so that they can take actions to manage those risks. The need for transparency applies to the entities that form the clearing, settlement, and custodial infrastructure of the securities markets. Informed market participants are better able to evaluate the costs and risks to which they are exposed as a result of participation in the system. Relevant information should be accessible to market participants. Information should be current and available in formats that meet the needs of users.

## Pillar VI: Interbank Money Market

**26. The importance of the interbank money market goes beyond its role in the national payments system.** An efficient interbank transaction mechanism supports active liquidity management and, thus, offers the potential to contribute to the safety and stability of the financial system. Efficient interbank money markets, by reducing friction in the market, help keep interest rates lower than they would otherwise be. Perhaps of greatest importance, efficient interbank money markets provide monetary authorities with an important tool in the conduct of monetary policy. The interbank money market is typically the market that central banks use to signal and, depending on the responsiveness of the economy, affect changes in monetary policy. If the operational procedures or the organizational and regulatory arrangements do not provide for an efficient system, the central bank can have difficulties signalling monetary policy.

**27. Two key elements for the development of interbank money markets are (**1) a special purpose system for large value payments to provide secure electronic interbank transfers with immediate settlement and (2) an interconnected electronic book-entry securities system to register and record changes in ownership of securities. In this context, strategies being developed for the large value payment systems and for SSSs and SCDs, under Pillars I and V respectively, need to take into account the critical supporting role of those systems in the interbank money market operations. Beyond these key elements, appropriate interbank security lending and repo functionality provide tools of critical importance to risk and liquidity management in the interbank market.

## Pillar VII: International remittances

**28. International remittances are increasingly relevant for economies and households.** This is especially true for many net recipient economies. As immigration flows continue to grow, and economic integration and interdependence deepens, remittances are expected to retain their importance.

**29. From a policy-making perspective, retail cross-border payments share many of the features of domestic retail payments, and users of international remittances**, just like any other retail payment services customer, expect to be provided with a set of convenient, cheap, reliable and predictable instruments to cover their most important payment needs, *i.e.*, face-to-face payments, one-off and recurring remote payments and ATM cash withdrawals. However, remittances can be expensive relative to the low incomes of many migrant workers and to the rather small amounts sent (typically no more than a few hundred dollars or its equivalent at a time). In addition, migrants may face challenges in accessing remittance services, if, for example, they do not speak the local language or do not have the necessary documentation. At the receiving end, relatively the undeveloped financial infrastructures in some countries may make it difficult for recipients to collect their remittances. In some cases, the cross-border remittance services are unreliable, particularly concerning the time taken for the funds to be transferred. In addition, in uncompetitive markets prices can be high and quality of services poor. In others, inappropriate or unnecessarily high regulatory barriers impede the provision of remittance services.

**30. Initiatives are in place worldwide to enhance the efficiency and integrity in the provision of remittance services.** In the mid-2000s, the World Bank and the CPSS convened a Task Force to provide guidance to policy makers and financial authorities on achieving a balanced regulatory and policy environment to foster safe, sound, cost-effective and efficient cross-border remittance systems. Central banks from sending and receiving countries, together with the international financial institutions and development banks, participated in the Task Force (TF). The CPSS - World Bank TF issued General Principles for International Remittance Services (GPs) in January 2007 (see Annex 3). The Ps, together with the Financial Action Task Force's (FATF) former Special Recommendations and recently revised set of recommendations, the 2012 International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation,) have been the primary sources of guidance on cross-border remittance system since the mid-2000s.

## Pillar VIII: Oversight of the National Payments System.

**31. The smooth and reliable functioning of money transfer mechanisms affect the efficiency and stability of the real economy and the financial markets, as well as the central banks' execution of its role as the lender of last resort and the conduct of monetary policy.** Market forces alone may not achieve the objectives of efficiency and reliability of the payment system since participants and operators may not have adequate incentives to minimize the risk of their own failure, or the costs they impose on other participants. In addition, the institutional structure of the payment system may not provide incentives or mechanisms for efficient design and operation.

**32. Central bank involvement in the NPS is an integral component of their primary mandate to ensure stability of the financial system and to maintain confidence in the domestic currency.** Central banks perform a number of functions in clearance, settlement and payment arrangements. While these functions may include direct involvement in managing clearing and settlement systems, typically, the central bank's most critical role with respect to the NPS is that of the overseer. In this role, the central bank develops rules, principles and best practices under which payment arrangements operate.[15]

**33. The role of the central bank is particularly relevant when the country is engaged in a comprehensive reform of its payment system**. The central bank typically plays the leading role in developing the vision for the reformed system, in coordinating with all stakeholders, and in carrying out the reform plan.

**34. In recent years, in an increasing number of countries, payment system oversight has been explicitly entrusted to central banks by law.** Specifying the objectives in relevant legislation may be the most direct way for providing a well-founded legal basis for the central bank to implement its policies and make it accountable in pursuing its goal and mandate with regard to the payment system. For countries facing the implementation of the project of reform in the payment system, it is of utmost importance for the central bank to have a well-founded legal framework that clearly defines its payment system role and objectives. In addition, the adequacy of legal enforcement for central bank action in the payment system facilitates the fulfilment of central bank's objectives.

**35. As for the scope of the oversight function, at the international level there is consensus that systems that pose systemic risks should definitely fall under the direct control of the overseer.** Typical examples of these systems are those that handle transactions of a high value at both the individual and aggregate level. The CPMI-IOSCO 2012 Principles for Financial Market Infrastructures (PFMI), which replaced the CPSS 2001 Core Principles for Systemically Important Payment System, the CPSS-IOSCO Recommendations for securities settlement systems, 2001 and the CPSS-IOSCO Recommendations for central counterparties, 2004, identifies five responsibilities for the central bank, and other relevant authorities, in applying the new PFMI. (See Annex 1).

**36. Increasing attention is being given to securities clearing and settlement systems as relevant components of the overall payments system**. The oversight of these systems might well be a cooperative effort of two or more regulatory agencies. In some countries, retail (low value) systems fall under control of the oversight agency because of their importance for the overall efficiency of the payments system, their potential impact on the public trust of money, and their relevance to sustain the ultimate objective of economic growth.[16]

**37. The internal organization of the central bank as far as the payment system activities are concerned may also be worth evaluating.** Experience in many central banks indicates that significant improvements can be derived from setting up a unit specifically devoted to payments

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[15] Principles for central bank oversight have been developed in the CPSS Report *Central bank oversight of payment and settlement systems,* 2005. Another example is the focus on central banks', market regulators' and other relevant authorities' responsibilities in the CPSS-IOSCO *Principles for Financial Market Infrastructures*, 2012. See also the paper on Payments system oversight of the Bank of England and Bossone-Cirasino, *The oversight of the payments system – A framework for the development and governance of payment systems in emerging economies,* 2001.

[16] Many examples can be brought on how an inefficient retail system can affect economic activity, for example by failing to accommodate the needs of customers and merchants in their desire to finalize a transaction, which as a result cannot take place.

policy issues, staffed by those with the appropriate skills. Typically, such a unit could develop an appropriate policy framework and appropriate tools (e.g. data collection, periodical inspections, etc.) for use in assessing the appropriateness of individual payments systems. The oversight function could be undertaken in close coordination with the banking supervisory function, for example, which has a high level of competence and experience in examining some of the related issues. Typical aspects that need to be analysed in administering the oversight functions include, inter alia, potential risks emerging from the various clearinghouses, the adequacy of risk control measures in place, the potential implications of the resort to unwinding procedures, as well as efficiency issues.

## Pillar IX: Cooperative framework for the payments system.

**38. Effective cooperation among market participants, between regulators and market participants, and among regulators is essential for the development of a sound and efficient National Payments System.** In particular, the "cross-nature" element that characterizes the transfer of money and the "systemic nature" of the underlying operating procedures make the payments system an "institution" whose existence and smooth functioning requires effective cooperation between all participants. On one hand, widespread use of new payment instruments and services relies heavily on public confidence in them. On the other hand, within the payment system, the supply of services can be affected by coordination failures due to the existence of conflicts of interests (and information costs) as well as the intermediaries' unwillingness to cooperate. This can lead to "sub-optimal" equilibriums in the organizational arrangements as to the system's reliability and efficiency. For example, in these systems the risk profiles – both at the system level and at the level of the individual intermediary – may not be fully assessed by participants. In addition, the concern with having to support less reliable intermediaries may lead larger participants to discriminate against smaller ones, even when these are technically eligible to participate in the system. Finally, the NPS also depends on agreements amongst the operators of the payments infrastructure and the service providers that use that infrastructure, to ensure that components of the system are compatible. Most recently, the emergence of new types of non-bank intermediaries and payment instruments has heightened the need for a comprehensive level of cooperation in the payments system.

**39. Central banks that do not have bank supervisory powers may face considerable information limitations, especially in crisis management situations.** The overseer would have to rely on information from the supervisory authorities, or develop their own independent access to information on payment system participants. While the first option transfers de facto the responsibility for triggering oversight action to the supervisory authority, the second option raises the risks of duplication of information collection, inconsistent public action, and additional costs to participants. An effective way to overcome most of these problems is to stipulate rules for granting the overseer with adequate access to supervisory information. The institutionalization of information sharing arrangements may reduce the risk that the exchange of information is hampered by frictions in cooperation between different institutions. Various solutions can be adopted for this purpose, from signing a memorandum of understanding that specifies the framework for cooperation, to assuring contacts between institutions through joint board membership, or establishing a comprehensive market regulatory/supervisory body where all the institutions with oversight responsibilities are represented and mandated to cooperate.[17]

**40. Cooperation must be pursued between the overseer and the securities markets regulators, as well, since securities settlement is an integral part of the payment system.** Problems in securities markets clearing and settlement may easily spill over to the payment system and vice versa.

**41. With regard to the cooperation among regulators, the safety and efficiency objectives of payment and securities settlement systems may be pursued by a variety of public sector authorities, in addition to the central bank and the securities commission.** Examples of these regulators include legislative authorities, ministries of finance, and competition authorities. There are also complementary relationships between oversight, bank supervision and market surveillance.

**42. Appropriate cooperation among supervisors can be achieved in a variety of ways, for example, exchanges of views and information between relevant authorities may be conducted by holding regular or ad hoc meetings.** Agreements on the sharing of information may be useful for such exchanges.

[17] See Banca d'Italia, *White Paper on Payments System Oversight,* 1999 and the CPSS Report *Central bank oversight of payment and settlement systems,* 2005 for a description of the institutional arrangements adopted in some leading industrial countries.

## Annex C. PAFI

Payment Aspect of Financial Inclusion (PAFT) is premised on two key points: (i) efficient, accessible and safe retail payment systems and services are critical for greater financial inclusion; and (ii) a transaction account is an essential financial service in its own right and can also serve as a gateway to other financial service. For the purposes of this report, transaction accounts are defined as accounts (including e-money/prepaid accounts) held with banks or other authorized and /or regulated payment service providers (PSPs), which can be used to make and receive payments and to store value.

In this context, financial inclusion efforts undertaken from a payment angle should be aimed at achieving a number of objectives. Ideally, all individuals and businesses – in particular, micro-sized and small business – which are more likely to lack some of the basic financial services or be financially excluded than larger businesses – should be able to have access to and use at least one transaction account operated by a regulated payment service provider:

- To perform most, if not all, of their payment needs;
- To safely store some value; and
- To serve as a gateway to other financial services.

The guiding principles for achieving these objectives of improved access to and usage of transaction accounts are the following:

- Commitment from public and private sector organizations to broaden financial inclusion is explicit, strong and sustained over time.
- The legal and regulatory framework underpins financial inclusion by effectively addressing all relevant risks and by protecting consumers, while at the same time fostering innovation and competition
- Robust, safe, efficient and widely reachable financial and ICT infrastructures are effective for the provision of transaction accounts services and also support the provision of broader financial services.
- The transaction account and payment product offerings effectively meet a broad range of transaction needs of the target population, at little or no cost.
- The usefulness of transaction accounts is augmented with a broad network of access points that also achieves wide geographical coverage and by offering a variety of interoperable access channels.
- Individuals gain knowledge, through awareness and financial literacy efforts, of the benefits of adopting transaction accounts, how to use those accounts effectively for payments and store-of-vale purposes and how to access other financial services.
- Large-volume ad recurrent payment streams, including remittances, are leveraged to advance financial inclusion objectives, namely by increasing the number of transaction accounts and stimulating the frequent usage of these accounts.

## Annex D. General Principles for International Remittance Services

**The CPSS - WORLD BANK**
**GENERAL PRINCIPLES FOR INTERNATIONAL REMITTANCE SERVICES**

The general principles are aimed at the public policy objectives of achieving safe and efficient international remittance services. To this end, the markets for the services should be contestable, transparent, accessible and sound.

**Transparency and consumer protection**

**General Principle 1:** The market for remittance services should be transparent and have adequate consumer protection.

**Payment system infrastructure**

**General Principle 2:** Improvements to payment system infrastructure that have the potential to increase the efficiency of remittance services should be encouraged.

**Legal and regulatory environment.**

**General Principle 3:** Remittance services should be supported by a sound, predictable, non-discriminatory and proportionate legal and regulatory framework in relevant jurisdictions.

**Market structure and competition**.

**General Principle 4.** Competitive market conditions, including appropriate access to domestic payments infrastructures, should be fostered in the remittance industry.

**Governance and risk management.**

**General Principle 5.** Remittance services should be supported by appropriate governance and risk management practices.

**ROLES OF REMITTANCE SERVICE PROVIDERS AND PUBLIC AUTHORITIES**

**A.** The role of remittance service providers. Remittance service providers should participate actively in the implementation of the general principles.

**B.** The role of public authorities. Public authorities should evaluate what action to take to achieve the public policy objectives through implementation of the general principles.

## Annex E. National Payments Council Terms of Reference

### Model for National Payments Council – Terms of Reference

**Objectives**
The National Payments Council aims to support the achievement of sound and efficient payment and securities clearance and settlement systems in Guyana. It can also serve as a forum for cooperation to maintain orderly conditions in regional and international payment systems.

**Main Tasks**
- The Council works to facilitate the necessary cooperation between all market participants and regulators in the payment area.
- The Council promotes common initiatives towards the implementation of the payment system infrastructure. These initiatives should not impede, and should in fact foster, healthy competition among market participants.
- The Council plays a key role in preparing strategic documents for the overall payment system architecture in the country.
- The Council plays a key role in monitoring the implementation of payment systems reforms.
- The Council plays a key role in facilitating the sharing of information on economic and business requirements of all parties impacted by the payment system.
- The Council helps to identify the impact of different options on participants' business and daily operations and on end-user interests.
- The Council plays a key role in selecting the main principles and options for system designs.
- The Council plays a key role in endorsing the priority and the schedule of individual projects to be launched, financed and implemented.
- The Council promotes standardization of procedures and systems.
- The Council is responsible for promoting knowledge of payment system issues in the country. To this end, the Council uses any means it might find appropriate (workshops, seminars, web pages, newsletter, etc.).
- The Council seeks to promote cooperation among all institutions active in payment and securities systems within the region and at the international level.

**Methodology**
- The Council prepares ad hoc reports on payment system issues. The reports would not have prescriptive nature. However, they would serve as a reference for the ongoing payment system reforms in the country.
- The Council establishes ad hoc working groups on payment matters. Working groups may or may not be composed of the totality of the institutions represented in the Council.
- The Council reports on its activities to Steering Committee on Payment Systems and the Top Management of the constituting institutions on an annual basis.

**Representation and Organizational Structure**
- The Council gives representation to all the stakeholders of payment and securities clearance and settlement systems. These include: BoG, all commercial banks, payment service providers, payment system operators, the Ministry of Finance, the stock exchange, and the Securities Council. As the NPS and financial markets develop and evolve, the NPC will expand to include other relevant stakeholders and regulatory bodies.
- The BoG serves as the secretariat of the National Payments Council.
- Appointed representatives of the stakeholders are senior managers with an involvement in payment matters. They report directly to the top management of their respective institutions.
- The Council is comprised of an appropriate number of experts. The composition of the Council should be consistent with the objective of having effective discussion in the meetings.
- The Council has an internal governance structure with a chairperson and deputy(s), an executive body, formal rules to determine the terms and conditions for the appointment of the executive positions, and formal rules to govern the activity of the executive body.
- In the early stage of its life, the Council might seek, if necessary, assistance from other national and international entities highly experienced in managing payment system groupings.
- The Council may invite, if needed, other institutions and/or individual experts to participate in its meetings.