

6. Payment Systems Infrastructure

This section describes ongoing policy initiatives to develop efficient and cost-effective payment systems in Mauritius.

Overview of the National Payment Systems Infrastructure

Mauritius' payment systems infrastructure is built around a high value interbank payment backbone supporting other clearing and retail payment systems. With a view to ensuring sustained stability of the payment systems infrastructure, the Bank's prime focus has been at ensuring increased resilience of Mauritius Automated Clearing and Settlement System (MACSS), which operates on the basis of Real Time Gross Settlement (RTGS). During 2014, the two main payment systems infrastructures owned and operated by the Bank of Mauritius, namely, the MACSS and Port Louis Automated Clearing House (PLACH)⁹ have shown remarkable resilience and have positively contributed towards maintaining the stability of the overall system.

Throughput and Availability of MACSS

During 2014, the volume and value of transactions settled on MACSS have been higher than in 2013 (Chart 6.1).

In 2014, the total value settled through MACSS exceeded Rs2.4 trillion or 6.3 times Mauritius' GDP. All transactions were settled without delay or loss, thus underscoring the fact the MACSS has remained resilient and it is appropriately sized to handle current volumes. Moreover, MACSS has operated without any downtime in 2014, and it has also provided settlement windows exceeding the statutory requirements by an average of 15 minutes per-day.

Cheque Truncation and Electronic Clearing

Since the implementation of the Bulk Clearing System in 2011, cheques and interbank electronic fund transfers (EFT) have been cleared at the Clearing House and settled immediately on MACSS (Charts 6.2 and 6.3). The main objective for introducing EFT on the clearing system is to remove from MACSS low value non-time sensitive payments. In 2014, about 4.8 million cheques were cleared representing a decline of 3 per cent in volume compared with 2013. Consequently, the total value of cheques cleared, which stood at Rs264 billion, also dropped by 2 per cent in 2014 compared with 2013. A decrease in the number and value of cheques cleared has a positive impact on the financial stability of the system given the risks associated

Chart 6.1: Transactions on MACSS

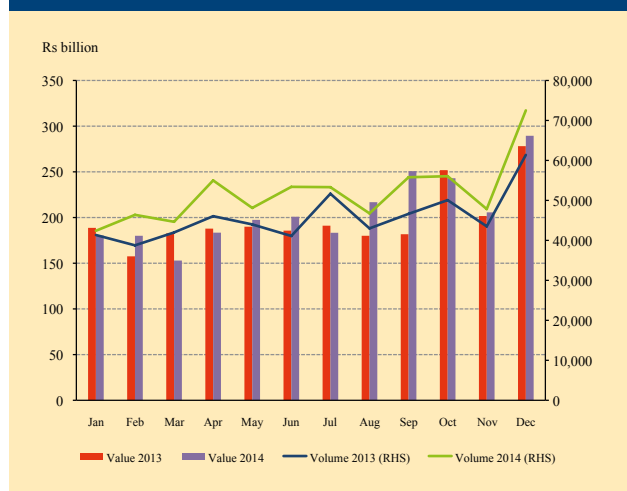
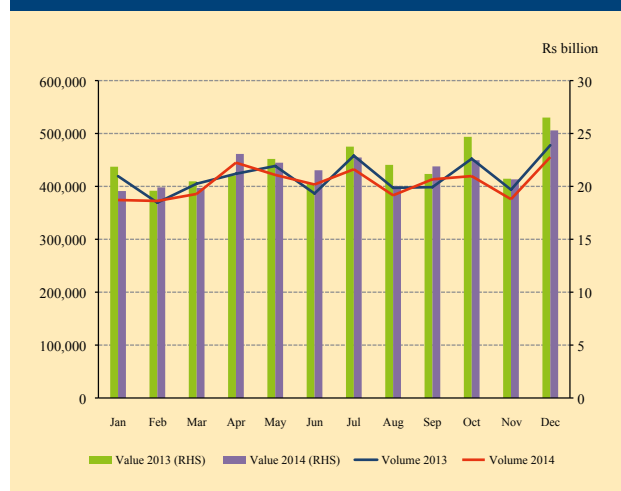


Chart 6.2: Cheques Cleared



⁹ PLACH is a supporting system of MACSS through which cheques and low-value payments are cleared and settled on a net basis on the MACSS.

with cheques. On the other hand, the volume and value of EFTs cleared in 2014 increased by 6 per cent and 7 per cent, respectively, compared with 2013, which indicates an increasing use of this mode of payment.

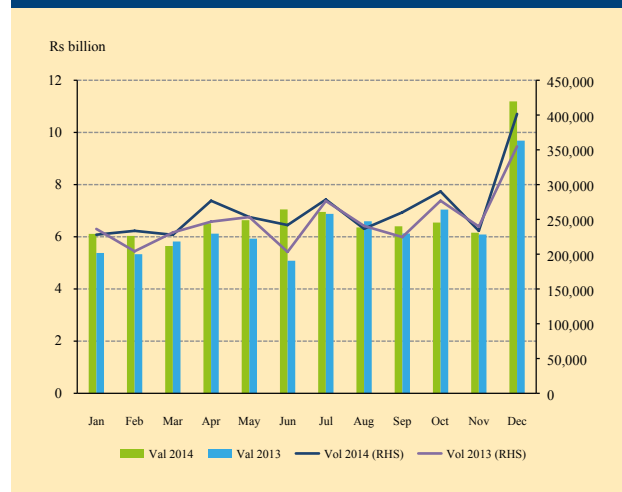
In early 2015, the Bank will introduce, the Direct Debit system, which will be a system to collect recurrent payments. For the first time, utility and Government bodies will interact directly with the system to receive payments. This will help to enlarge the participants' base of the Clearing House and goes in line with the CPMI recommended principles for market infrastructures.

National Payment Switch

The Bank is introducing a national payment switch system to cover banking transactions using bank cards, ATMs, mobile phones and other emerging electronic methods such as

wireless processing (Box IV). It will simplify the clearance process, mitigate the risk of systemic failure, and reduce the costs to users.

Chart 6.3: EFT Cleared



Box IV: Mauritius - National Payment Switch

Despite the successful initiative of the Bank to modernise retail payments, all card-based payments and those using mobile devices fall outside the services of the Bank. Owing to their size and growth, such payment methods increasingly present systemic risks to the financial system by posing threats to its stability. The current system of card networks is not connected at national level. A payment made with the card of one bank, using the Point of Sale (POS) device provided by another bank, results in a routing outside Mauritius, through the international card providers' systems. This involves higher costs than would be incurred in a national system.

The implementation of a National Payment Switch for card and mobile banking is, thus, systemically critical and beneficial to users. The National Payment Switch will bring cost effectiveness in the payment value chain, provide a standard system for all transactions that sets all players on a level playing field, and ensure continued protection of consumers. A Payment Switch is a central point for routing all electronic transactions such as those made from ATMs, POS, as well as Mobile devices. This results in lower transactions costs, with the possibility of merchants sharing POS and users accessing the ATMs of any bank without incurring additional costs. The National Switch has the potential to provide value-added services such as electronic wallets, pre-paid cards, and facilitate Government payments such as pensions and social security payments.

Benefits of a National Payment Switch

The National Payment Switch, by way of its design and operation, will fill the gap in the area of retail payments and will provide several benefits to the card business, the merchants and customers.

Cost Savings

The current set-up of card-based payments in Mauritius is based on the concept of a one-to-one direct relationship with the payment processors, thus resulting in multiple investments and processing costs. Switches are designed to be payment processor neutral and may therefore interface easily to virtually any payment processor. This processor neutrality, combined with insulation of the POS from payment processor connections, will give merchants and card issuers maximum flexibility when it comes to evaluating their payment processing relationships. Cost savings will therefore be achieved on multiple fronts, namely:

- Switch will allow direct routing of authorization requests and eliminate intermediate arrangements and related processing costs;
- Switch will allow batch settlement of transactions instead of single transaction processing; and
- Switch will have direct connection with credit card associations, thus eliminating per-transaction conveyance fees (estimated at about 10% per total merchant fees) charged by processors to route these transactions.

Revenue Generation Opportunities

Payment switches are typically integrated and certified with multiple processors across numerous tender types and payment products. Merchants can therefore propose a wider range of payment and service options to their customers. This will allow merchants to attract more customers and propose switch-supported payment services such as phone cards and gift card trees. In fact, there is a revenue opportunity cost associated with failing to rapidly adopt such new tender types and payment products.

Administrative Efficiencies

The Switch has a direct impact on the following business areas:

- **Centralised Reporting:** The entire settlement process will be centralised, thereby saving merchants from the in-store staff for batch reconciliation and associated reconciliation challenges. The Switch allows merchants to view their payment system from a single reporting and interfacing system.
- **Integrated POS:** Most merchants in Mauritius still operate payment terminals in a stand-beside scenario, where card information is entered twice at the payment terminal – once via a card swipe and then again through a manually keyed entry into the POS system. A payment switch can help integrate payment terminals with POS systems which eliminate the need to double-enter transactions. It also removes the associated back office burden needed to reconcile transaction record differences between the POS system and payment terminal.

Low Cost Sharing of ATMs

Currently, customers have to pay a fee ranging from Rs35 to Rs80 when cash is withdrawn from the ATM of another bank. This is mainly due to interchange fees that are paid in the process. With the National Switch, ATM sharing fees can be considerably reduced.

National Cards and Store Value

The Switch provides the ideal environment for the issue and use of a 'National Card' to further drive down costs of local transactions. National cards can also take the form of Electronic (Social) Benefits Transfer (EBT) cards which are stored-value cards issued by government agencies to distribute pension, money for food, clothing and living expenses to recipients enrolled on special programmes (social security, low-income programmes, etc.).

Internet and Mobile Payment Switching

In a Switch environment, merchant fees relative to payment made over the internet are reduced. The Switch provides virtual terminals to merchants who can effect recurring billing to customers, print and send customised receipts and have round-the-clock access to free reporting.

The options for mobile payments in the market are currently limited and suffer mainly from the issue of inter-operability which the Switch will address. Currently, a person must have an account with a specific service provider which in turn works with a specific bank in order to be able to make use of the service. The Switch will provide a platform for switching payments to and from mobile devices, making mobile payment inter-operable from a provider as well as from a banking perspective.

Wireless Processing

The Switch will enable wireless credit card processing technology. As such, it will offer new flexibility and opportunities for all merchants, help increase sales, reduce operating expenses and will be particularly beneficial for those merchants whose business takes them outside the traditional bricks-and-mortar establishment.

From Payment Switch to Payment Hub

The Bank has also noted that our current banking and payment environment is not conducive for the digital revolution that would benefit operators and consumers. The following imperfections in our current environment are noteworthy:

1. Silo approach to electronic payments and services;
2. High costs to services;
3. High dependence on international service providers such as Visa or MasterCard;
4. Dominance of a few operators;
5. Product-centric approach for banking and payment services; and
6. No level playing field for small operators.

The development of a Payment Hub is, thus, warranted. The Bank proposes to address these issues through the **Payment Hub**, which is a core component of the Switch, and is expected to become an enterprise payments architecture that will:

1. Integrate and route all types of payments and digital banking services across the country;
2. Allow banks to build their own version of best-in-class banking and payment architecture;
3. Tie together specialised services required to build payment applications, such as data completion, exception handling and settlement;
4. Incorporate a centralised point for AML/CFT/OFAC filtration, risk management, dispute resolution and archiving; and
5. Allow new types of specialized service providers, distinct from banks, to operate.