

2011

PAYMENT AND SETTLEMENT SYSTEMS

- 91 Promoting the Smooth Operation of Payment and Settlement Systems
- 95 Payment Trends
- 97 Promoting Efficient and Effective Payment Services
- 98 Driving E-Payments in Priority Sectors
- 99 Modernising RENTAS to Support the Strengthening of Financial Integration with the Region
- 100 Broadening Regional Cooperation in Payment Infrastructure Development
- 100 Building an Integrated E-Payment Infrastructure
- 100 Moving Forward

PAYMENT AND SETTLEMENT SYSTEMS

In 2011, the payment and settlement systems continued to support the growth of the banking sector and the broader economic and financial system. Apart from promoting the smooth operation of the payment and settlement systems and strengthening the mitigation of associated risks, the Bank's efforts were also directed towards fostering efficient and effective payment services to support Malaysia's transition towards becoming a high value-added, high-income economy. These included specific initiatives to create an integrated payment ecosystem that would accelerate the country's migration to electronic payments (e-payments), thus delivering greater economic efficiency. The year also saw the broadening of regional cooperation in developing the market infrastructure for payments and financial instruments, and greater financial integration with regional and global economies supported by resilient and robust payment and settlement systems.

Apart from promoting the smooth operation of the payment and settlement systems and strengthening the mitigation of associated risks, the Bank's efforts were also directed towards fostering efficient and effective payment services to support Malaysia's transition towards becoming a high value-added, high-income economy

PROMOTING THE SMOOTH OPERATION OF PAYMENT AND SETTLEMENT SYSTEMS

In providing oversight of payment systems in Malaysia, the Bank aims to ensure the continued reliability of the major payment systems and

thus promote public confidence and trust in the retail payment systems and instruments. The Bank's primary focus of oversight is directed at the major interbank clearing and settlement systems and the widely used payment instruments listed in Table 4.1. These systems supported payment transactions amounting to RM49.5 trillion in 2011, which is equivalent to 58 times of Malaysia's gross domestic product (GDP). The objective of the Bank's oversight is to: (i) mitigate systemic risks that can arise from disruptions in the operations of the payment systems, including through the application of appropriate prudential and operating standards for the payment systems; (ii) promote the efficiency of payment systems; and (iii) accord adequate protection for users of the payment systems and instruments.

Table 4.1

Major Payment Systems and Instruments in Malaysia in 2011

System/Instrument	Volume (million)	Value (RM billion)
RENTAS ¹	3.4	47,175.6
National Electronic Cheque Information Clearing System (eSPICK)	204.9	1,979.9
Interbank GIRO (IBG), Financial Process Exchange (FPX) and Direct Debit	61.8	171.6
Shared ATM Network (SAN)	215.4	69.7
Debit Card and Credit Card	342.1	95.1
Touch 'n Go Prepaid Card	796.8	2.3

¹ Comprises Interbank Funds Transfer System and Scripless Securities Depository System

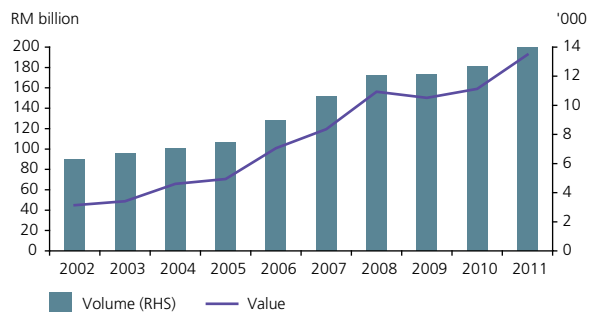
Source: Bank Negara Malaysia

RENTAS

The Real-time Electronic Transfer of Funds and Securities System (RENTAS) is a real-time gross settlement system designed primarily for the transfer and settlement of high-value interbank payments and securities transactions. In 2011,

Chart 4.1

RENTAS: Daily Average by Value and Volume



Source: Bank Negara Malaysia

transactions settled through RENTAS continued to increase in value to 55.3 times of Malaysia's GDP (2010: 51.5 times), with a higher daily average turnover following the increase in foreign direct investments and higher portfolio capital flows (Chart 4.1). Third party payments in RENTAS by individuals and corporates were also higher by 33% as efforts to promote the use of e-payments intensified further. While third party payments accounted for only 22% of the total settlement value in the system, the share of the number of transactions had progressively increased from 55% in 2007 to 69% in 2011.

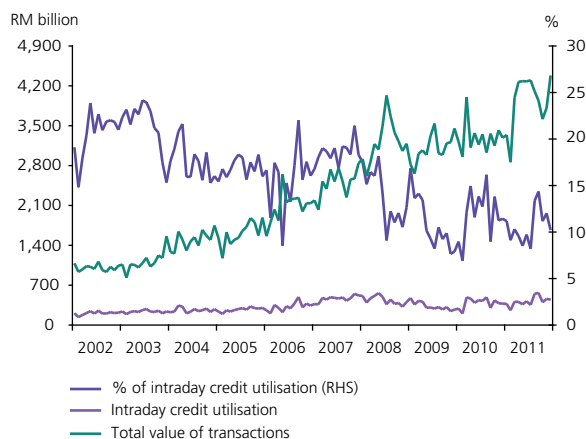
Throughout the year, RENTAS achieved 100% systems availability, with a significant reduction in the request for extension of operating hours

Oversight over RENTAS

RENTAS is operated by the Bank's wholly-owned subsidiary, Malaysian Electronic Clearing Corporation Sdn. Bhd. (MyClear), in accordance with supervisory expectations and service level standards set by the Bank. These standards include having in place an effective risk management and control framework that supports the uninterrupted operations of RENTAS. Throughout the year, RENTAS achieved 100% systems availability. A significant

Chart 4.2

Intraday Credit Usage



Source: Bank Negara Malaysia

reduction was also observed in participants' request for the extension of operating hours from 29 incidents in 2010 to only five in 2011, reflecting improvements in market efficiency and liquidity management by participants, which, combined with ample liquidity in the system, allowed participants to settle their payments early. Consequently, the share of intraday collateralised credit granted to participants to meet temporary liquidity shortages during the day fell from 11.9% in 2010 to 10.6% of the total settlement value (Chart 4.2).

To promote a sound and efficient infrastructure for payment and settlement systems, the Bank requires MyClear to ensure that RENTAS meets the international best practices as outlined in the Core Principles for Systemically Important Payment Systems (CPSIPS) issued by the Bank for International Settlements Committee on Payment and Settlement Systems (CPSS) and Recommendations for Securities Settlement Systems (RSSS) jointly issued by CPSS and the Technical Committee of the International Organisation of Securities Commission (CPSS-IOSCO). Self-assessments to evaluate RENTAS's operations against the CPSIPS and RSSS were carried out by MyClear on a regular basis. In 2011, MyClear has taken steps to further improve its observance of the three Core Principles that deal with operational risks (Core Principle VII), efficiency (Core Principle VIII) and access criteria (Core Principle IX). These involved a review of the participation rules, operational procedures and risk management framework for RENTAS,

Table 4.2**Assessment of RENTAS against CPSIPS and RSSS**

	10 Core Principles for Systemically Important Payment Systems	19 Recommendations for Securities Settlement Systems
Observed	6	15
Broadly observed	3	2
Not applicable	1	2

Source: Bank Negara Malaysia

resulting in more stringent conditions for the extension of operating hours, more transparent access criteria, the adoption of higher standards with respect to system downtime and recovery period for business continuity, and more comprehensive coverage of disaster recovery live runs. With these measures, RENTAS now fully or largely observes all applicable core principles and recommendations (Table 4.2).

The Bank's oversight activities are directed towards ensuring operators of retail payment systems and issuers of payment instruments operate in a secure and reliable manner while safeguarding consumer interests

Oversight over retail payments

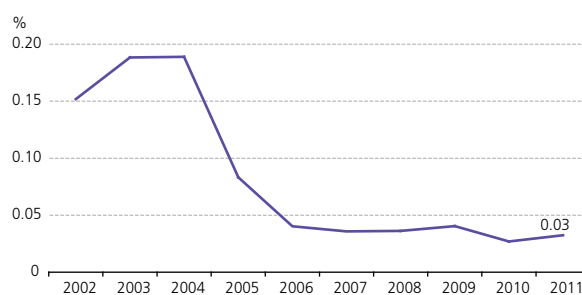
The Bank's oversight activities also cover the safety and efficiency of prominent retail payment systems and instruments to maintain public confidence in using such systems and instruments. Although payment transactions using these payment systems and instruments tend to be of relatively low value, the volume involved was substantial, accounting for 87.4% of the non-cash payments in 2011. In discharging the oversight responsibility on the retail payment systems, the Bank's resources have been directed on those payment systems, payment instruments and market infrastructure whose failure or disruption in operations could cause widespread public inconvenience, and which, if prolonged, could undermine confidence in the systems. Operators and issuers of prominent retail payment systems and instruments are

required to comply with the regulations and conditions for the operations, including minimum capital requirements, sound governance and risk management practices, adequate transparency including disclosures on fees and charges, effective anti-money laundering and counter financing of terrorism (AML/CFT) measures, and efficient operational procedures.

Security of retail payments

While technological advancements continue to transform the payment landscape and bring significant improvements in operational efficiencies and greater convenience to consumers, of importance is preventing the misuse of technology to defraud consumers. Overall fraud losses have remained negligible, accounting for only 0.001% of total value of retail payment transactions in 2011, a trend since 2006 following the industry-wide migration to chip-based Automated Teller Machine (ATM) cards and the Europay-MasterCard-Visa standard for credit cards. The Bank continues to monitor signs of emerging fraud trends and maintains collaborative efforts with the enforcement agencies, the payment industry and consumer associations to avert fraud incidents involving retail payment systems. This has contributed to ongoing enhancements to business practices to better protect consumers against new methods of perpetrating fraud, while a sustained consumer education programme has also helped to increase public awareness on fraud prevention measures.

In combating fraud, greater focus was given to promote the secure use of credit cards which is a widely used e-payment instrument in Malaysia. As a result, credit card fraud losses were contained to less than 0.05% since 2006 (Chart 4.3). More

Chart 4.3**Credit Card Fraud: % of Total Transaction Value**

Source: Bank Negara Malaysia

than 60% of credit card fraud losses in 2011 involved card-not-present (CNP) transactions that did not require the presence of physical cards, such as for purchases made over the Internet, or through mail and telephone orders – a trend also observed globally with the continued rise in online transactions and e-commerce. Further measures have thus been taken to enhance the security features of the credit card infrastructure, including the introduction of transaction alerts via short message services and the adoption of stronger authentication methods for online transactions. Moving forward, the use of Personal Identification Number for verification of cardholder for card transactions performed at the point-of-sale may be adopted to replace the current requirement of signing on a paper receipt.

In the Internet banking space, fraud losses remained negligible during the year, accounting for only 0.0009% of total Internet banking transactions in value terms. However, incidents of phishing, which is a method used by fraudsters to deceive unsuspecting customers into divulging their login credentials and personal details, have continued to be prevalent. In 2011, the Bank and financial institutions intensified efforts to alert the public on the importance of safeguarding their personal information, leveraging on the media and other means of communication through frequent consumer touchpoints. Financial institutions had also deployed additional safeguards in securing Internet banking systems, such as stronger authentication methods and transaction monitoring. These efforts have contributed towards minimising losses due to phishing which decreased by 15.5% to approximately RM10 million in 2011. The Internet Banking Task Force (IBTF), which was set up in 2004 continues to have an important role in keeping abreast with developments and raising public awareness of increasingly sophisticated fraud techniques using more advanced technological capabilities. The members of the IBTF comprise the banking institutions, CyberSecurity Malaysia, the Malaysian Communications and Multimedia Commission, the Royal Malaysia Police and Bank Negara Malaysia.

Resilience

The resilience of RENTAS to wide-scale operational disruptions was further

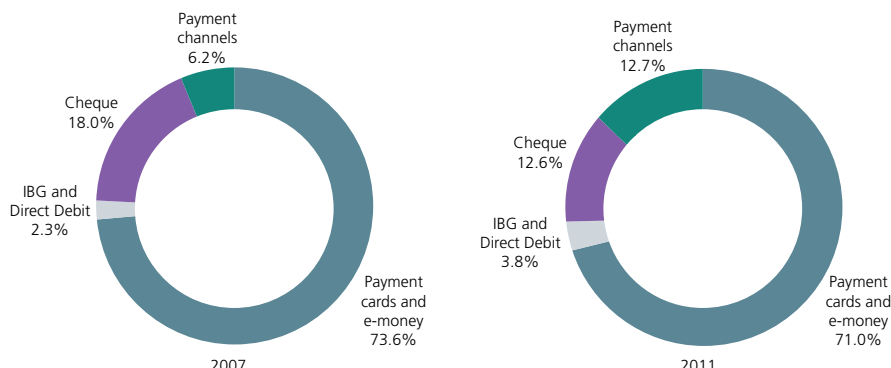
strengthened in 2011 following upgrades to the infrastructure supporting payments and securities settlements through RENTAS. This was reinforced by monthly disaster recovery (DR) exercises that were undertaken by MyClear which affirmed the robust business continuity strategy for RENTAS and eSPICK. The DR live exercises were designed to test the readiness and reliability of the recovery systems for RENTAS and eSPICK in the event of an operational failure at the production sites. During the year, MyClear also conducted two coordinated industry-wide DR live exercises which showed that all RENTAS and eSPICK participants were able to operate from their DR site and connect to the RENTAS and eSPICK host systems at the Bank's DR site. No major issues were encountered in both the independent and coordinated tests. To further enhance the business continuity arrangements for RENTAS, MyClear will introduce a contingency system of last resort in 2012 to provide a minimal level of essential services in the extremely unlikely event of a total failure of RENTAS at both the production and DR sites. The RENTAS-USD Clearing House Automated Transfer System (CHATS) Payment vs Payment (PvP) link with Hong Kong Interbank Clearing Limited (HKICL) also cleared three DR tests to affirm the connectivity between systems at the respective DR sites.

The system capacity and technology platform of RENTAS were upgraded to improve the resilience of the infrastructure supporting RENTAS payments and securities settlements

In the retail sector, payment system operators and payment instrument issuers are required to undertake similar DR exercises. Following the acquisition of the major retail payment systems by MyClear in September 2011, a post-acquisition DR exercise conducted jointly with member financial institutions and related service providers affirmed the resilience of the systems with no evidence of a material deterioration in services.

Chart 4.4

Share of Non-Cash Payments by Volume



Source: Bank Negara Malaysia

PAYMENT TRENDS

The Bank’s efforts in driving improvements in the efficiency of e-payment services coupled with support from the public and private sectors and improvements in the enabling environment, notably the advances in telecommunication services, have contributed to increasing the use of e-payments in Malaysia (Chart 4.4).

E-payments

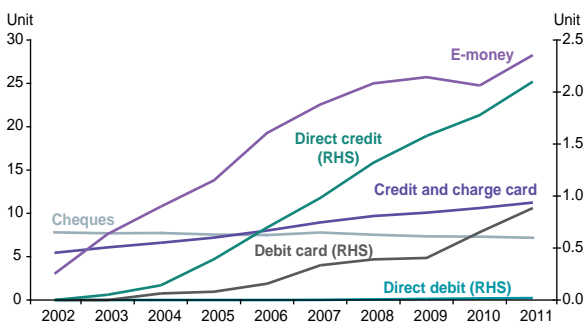
The average number of e-payment transactions per capita increased to 50 in 2011 (2010: 44). The increase was mainly attributable to the higher use of electronic money (e-money) and Internet banking. The mobile banking penetration rate was also higher in 2011, along with the wider use of ATM, debit cards and IBG for making payments.

Payment cards and e-money

E-payments at Electronic Funds Transfer at Point of Sale (EFTPOS) terminals continued to record steady growth with more consumers and merchants preferring the efficiency and convenience of payment cards over cash. Credit cards remained the predominant payment instrument, accounting for nine out of every 10 transactions at EFTPOS terminals. Spending via debit cards increased in 2011 by 37.1% and 33.1% in terms of volume and value respectively (Chart 4.6). This significant increase can largely be attributed to intensive marketing campaigns by banks to promote the use of debit cards and an increase in the number of international brand debit cards. An additional 5.1 million debit cards were issued during the year, bringing the total number of debit cards in the country to 35 million as at end-2011.

Chart 4.5

Non-Cash Payments per Capita

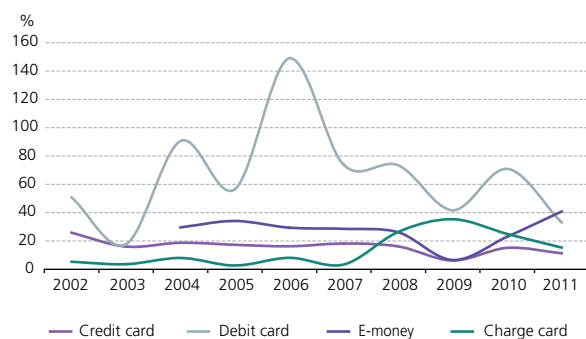


Source: Bank Negara Malaysia

Also underpinning the growth of payment cards has been an increase in the number of EFTPOS terminals. In 2011, more than 35,000 EFTPOS terminals were added, bringing the total number of EFTPOS terminals to 262,477 as at end-2011. Of these, 211,615 terminals accept international brand payment cards, whilst 141,076 and 31,236 accept domestic debit cards and e-money respectively.

E-money usage continued to expand in 2011, growing by 15.4% and 40.8% in terms of the number and value of transactions respectively. 806.8 million transactions worth RM3.8 billion were made in 2011 (2010: 699.3 million transactions worth RM2.7 billion). As e-money

Chart 4.6

Payment Cards: Annual Growth by Transaction Value

Source: Bank Negara Malaysia

transactions were predominantly concentrated in the transportation sector, the growth was attributed largely to higher traffic flows along tolled highways and the roll-out of cashless ticketing machines on public buses operated by a major bus operator. The wider use of e-money was also observed for transactions in the mass transit and rail sectors which increased almost three-fold to 61.2 million transactions in 2011. For parking, more than 12.1 million payments were made using e-money, up by 45.8% from 2010. These trends clearly point to the growing public appeal and acceptance of e-money in Malaysia.

IBG and FPX

The value of IBG transactions increased by 31% to RM166.1 billion in 2011. Over RM60 billion of this was attributed to Internet and mobile banking transactions. The implementation of electronic dividend (e-Dividend) and electronic share payment (e-Share Payment) in the capital market and electronic tax refunds by the Inland Revenue Board of Malaysia, were key contributors to this growth. With the addition of two participating banks in the IBG, a total of 37 member banks now offer IBG facilities, making it accessible to the customers of nearly all banks in Malaysia. The volume and value of FPX transactions also increased to 878,357 transactions valued at RM618.9 million (2010: 488,899 transactions valued at RM309.9 million). These were mostly for purchases of airline tickets and repayment of consumer credit loans for purchases of home appliances in the retail sector. The wider adoption of e-payments for Government and insurance transactions also contributed to the increase.

Electronic channels (e-channels) and other electronic funds transfer systems

The use of Internet banking has continued to increase with wider household access to broadband services under the National Broadband Initiative. In tandem with the significant growth in the household broadband penetration rate from 15.5% in 2007 to 62.3% in 2011, the number of active subscribers of Internet banking has more than doubled over the past five years. Over the same period, the ratio of Internet banking turnover to GDP has tripled. Fund transfers and salary payments by the corporate sector accounted for the bulk of this growth.

The ATM is also widely used for interbank fund transfers, loan and card repayments, and bill payments. In 2011, 42.1 million financial transactions totalling RM37.3 billion were made via ATM (2010: 38.8 million transactions worth RM31.3 billion). During the year, the domestic SAN operated by the Malaysian Electronic Payment System Sdn. Bhd. (MEPS) expanded its membership to include five locally-incorporated foreign banks, allowing nearly all account holders in Malaysia access to 11,689 ATMs nationwide via a single network.

The use of mobile phones for payments has also expanded following moves by banks to enhance mobile banking applications for smart phone users to support a wider range of mobile banking transactions, and the introduction of mobile banking services by a major bank during the year. As with ATMs, the mobile banking channel is commonly used for bill payments, loan and credit card repayments and fund transfers.

Cash

Cash-in-circulation (CIC), a proxy for cash usage, increased from RM47.7 billion in 2010 to RM53.5 billion in 2011. While remaining high, its share of the total value of private consumption expenditure declined from 82% in 2000 to 68% in 2011, signifying the displacement of cash by more convenient e-payment alternatives, such as payment cards and electronic banking. The CIC-to-GDP ratio increased slightly to 6.3% in 2011, a level that is still considerably lower than other regional economies. It is, nevertheless, higher than levels observed in countries where payment cards are widely used, such as Australia (4.6%), Canada (4%) and New Zealand (2.2%).

Cheques

While still representing an important payment instrument in Malaysia, cheque usage has declined to about seven cheques per capita from eight cheques in 2007. In 2011, the total number of cheques cleared decreased further to 204.9 million (2010: 206.7 million). This is due largely to the use of e-channels for dividend payments and the lower use of cheques for payments below RM1,000. While the value of cheques cleared increased to RM2 trillion in 2011 (2010: RM1.8 trillion), its share of non-cash payments has declined to 52% (2010: 59%). Payments by cheque as a share of private consumption has also declined from 7.9% to 5.2% during this recent decade as more individuals switched to e-payments.

PROMOTING EFFICIENT AND EFFECTIVE PAYMENT SERVICES

In promoting e-payments as a viable alternative to paper-based payment, the Bank has focused on enhancing the key attributes of payment services that are important to users, namely the accessibility of payment services, the speed at which funds are made available to beneficiaries, the certainty of payment to the correct recipients, and the ease of identifying the purpose of payments. These attributes are the main reasons that users consider in choosing e-payments as a means of payment. In 2011, several initiatives were taken to further improve these attributes.

Wider access via mobile banking and payments ecosystem

The first phase of developing an open ecosystem that would enable the offering of mobile banking and payment services via a multi-bank and mobile network neutral infrastructure has been completed. The services, offered under the brand label “MyMobile”, are currently being piloted by three major banks. MyMobile is offered in partnership with two major mobile network operators and functions using the Unstructured Supplementary Service Data (USSD)¹ technology. Key features of MyMobile include the use of a common USSD short code (*500*888#) by all participating banks for their customers to access MyMobile services, and standardised menu design and banking procedures. Registered users can view transaction history, perform balance enquiries, fund transfers and bill payment transactions at any time and from any location. An attractive feature of MyMobile is its ability

to support fund transfers using the mobile phone numbers of beneficiaries instead of bank account numbers. This eliminates the need for bank account details to be divulged to senders as the bank account number of the beneficiary is provided directly to the bank of his or her choice either by prior registration with the bank, or when the funds are to be transferred. With its successful launch, more banks and mobile network operators are expected to participate in the open platform with more services added to the MyMobile offerings.

The Bank accords priority to strengthening the key attributes of payment services that are important to users, namely the accessibility of payment services, the speed at which funds are made available to beneficiaries, the certainty of payment to the correct recipients, and the ease of identifying the purpose of payments

Faster payment services

The system and process enhancements undertaken by the banking industry have delivered substantial improvements in the speed of interbank fund transfers. Fund transfers between accounts within the same bank are already on a real-time basis. For payments made via the IBG before noon, funds are available to beneficiaries on the same day. The member banks of RENTAS are also taking steps to reduce the time taken to credit a beneficiary’s account to within one hour from the time the payment is initiated. This is expected to be in place by the middle of 2012. With these improvements, Malaysia’s electronic fund transfer services will be among the most efficient in the region.

¹ USSD is a technology used by a GSM network to send information, usually text menus between a mobile phone and an application on the network. A USSD session is requested through the use of short codes.

Certainty of beneficiary

An increasing number of banks have been providing additional validations to verify the proper beneficiaries of fund by confirming the identity card or business registration number in addition to the bank account number, prior to crediting funds into a beneficiary's account. To support the wider implementation of such validations across the industry, the Bank is working in collaboration with the National Registration Department of Malaysia and the Association of Banks in Malaysia to capture the MyKad numbers of all bank account holders by the first half of 2012.

Efficient operational process

To improve the capture of payment and remittance information, senders can now specify the purpose of transactions and beneficiaries can obtain the payment details from their banks upon request. This will allow payments to be more easily identified for reconciliation purposes. For a longer-term solution, work has commenced to formulate a framework on payment reference standards, covering electronic fund transfers, debit card transactions and bill payments, which would capture minimum payment information in a consistent manner across the various payment services. This would eliminate the need to perform tedious, time-consuming and costly reconciliations of payables and receivables due to inadequate reference information accompanying electronic fund transfers.

Encouraging competition and market entry

The Bank encourages all players to adopt international standards to facilitate interoperability, and to enhance the security and operational efficiency of the payment infrastructure. This also contributes to promoting fair and healthy competition in the retail payment sector, while making e-payments more convenient for consumers. The benefits from promoting consistent standards for e-payments have also become more pronounced in recent years, as more non-bank entities entered the payment space to provide a variety of payment services. In particular, the Bank encourages the adoption of the international contactless standards, such as the ISO 14443 standard, for e-money platforms to improve the security and operational efficiency of the card-based e-money

infrastructure and to allow consumers to use e-money seamlessly when making payments in any sector without the need to switch between cards for different purchases.

DRIVING E-PAYMENTS IN PRIORITY SECTORS

A key strategy in the Bank's efforts to encourage the increased adoption of e-payments has been to focus on priority sectors that have high payment transaction flows, and where the Bank is able to work collaboratively with specific key stakeholders to accelerate the migration to e-payments. In 2011, further progress was made towards increasing e-payment usage for Government payments and receipts, and for transactions in the financial and transportation sectors.

Government

Having migrated nearly all Government payments to electronic fund transfers, the Government has set an ambitious goal to achieve 90% of all revenue collection and payments by the public to be effected via e-channels by 2015. During the year, the Government extended e-payment facilities further to various government agencies and offered wider choices of e-payment alternatives to the public. 236 government agencies now offer online payment services, up from 116 agencies in 2010. Federal and state agencies, local authorities, public universities and government-linked companies currently offer a combined total of 449 online payment services (2010: 281). As a result, payments to government agencies through the FPX system grew by 77.6% to 333,771 transactions valued at RM120.9 million in 2011 (2010: 187,958 transactions valued at RM70.9 million). The expansion of card payment facilities for agent payments at branches of the Road Transport Department of Malaysia nationwide has also contributed to a 50.2% increase in transactions using payment cards to 183,704 transactions amounting to RM91.8 million in 2011. The Government also plans to leverage on the mobile banking and payments ecosystem as a new channel to receive payments from the public with a launch by pilot agencies expected later in 2012.

Banking, Insurance and Takaful

Banking institutions have ceased cheque issuances for settlements among themselves, and are committed to progressively migrate

all internal payments (such as housing loan disbursements, payments to statutory bodies, utility companies, panel hospitals and clinics, board members, service providers and insurance companies) to e-channels. In addition, banks have also continued to introduce banking products with fee structures that incentivise the adoption of e-payments such as IBG and Interbank Funds Transfers via MEPS' SAN. Work is also progressing to increase the transaction limits for fund transfers.

Encouraging progress has been made in the adoption of e-payments by life insurers, with payments to agents, staff and statutory bodies having largely migrated to e-payments. The Bank is now working towards making e-payment options available for claim payments, which represent the bulk of payments made by insurers.

Capital Market

Following the collaboration between the Bank and the Securities Commission to implement the e-Share Payment and e-Dividend initiatives, 59.4% of total dividend payments amounting to RM43.4 billion were made via e-Dividend in 2011, displacing 3.5 million cheques. About 2.1 million share payments valued at RM308 billion were made using e-channels. Building on the momentum of these two initiatives, efforts to accelerate the adoption of e-payments in the capital market have been extended to initial public offering (IPO) refunds, subscriptions and redemptions of unit trusts, and subscriptions of rights issues.

The first phase of the electronic refunds (e-refunds) for IPO applications was implemented in March 2012, allowing investors to enjoy same-day crediting of all types of refunds for IPO applications made via the electronic subscription service, including refunds for the difference between the final price and the indicative offer price. E-refunds for manual applications are expected to be operational in the second half of 2012. The unit trust industry commenced offering e-payments for income distributions and the redemption of units in the second half of 2011, and more investors are expected to avail of the e-payment options in 2012. Leveraging on the banks' electronic IPO channels, the Investor Corporate Exercise (ICE) framework was formulated to promote e-payments for corporate exercises undertaken by listed companies. Implementation of the ICE framework, with the participation of three pilot banks, is targeted for end-2012 and will be staggered, beginning with

the subscription of rights issues and refunds arising from excess rights applications.

The e-Dividend facility, which allows investors to receive dividend payments via direct credit into their bank accounts, will also be adopted in 2012 for other cash distributions, namely interest payments on loan or debenture stocks, coupon payments for listed bonds, income distributions made by collective investment schemes such as real estate investment trusts and exchange traded funds, capital repayments and cash payments in lieu of odd lots arising from distributions in specie.

Transportation

In the transportation sector, the Integrated E-Payment Platform for Transportation (IEPT) Alignment Committee provides strategic direction on the formulation of a holistic e-payment master plan to promote the use of card payments in the transportation sector. Its members include the Bank and key stakeholders in the transportation sector. The IEPT master plan is aligned with one of the seven initiatives under the National Key Result Areas of the Government Transformation Programme 'Improving Urban Public Transport' and sets out a roadmap for the implementation of an Integrated Smart Ticketing system that would enable the seamless use of transport services across multiple transit operators and different modes of public transportation. The master plan is expected to significantly boost the penetration rate of e-money usage in the transportation sector.

MODERNISING RENTAS TO SUPPORT THE STRENGTHENING OF FINANCIAL INTEGRATION WITH THE REGION

The Bank, via MyClear, has continued its initiatives to improve and enhance the capability of RENTAS in supporting cross-border payments and settlements. In March 2012, the onshore multi-currency funds and securities settlement facility was launched for renminbi (RMB) settlements. The RMB settlement facility in RENTAS will enhance the efficiency of RMB trade settlements for Malaysian corporates by reducing costs and ensuring finality of settlements.

During the year, MyClear also opened up participation in RENTAS to foreign entities. On 27 June 2011, Euroclear, an International Central Securities Depository, became the first foreign entity to be admitted as a member of RENTAS. With this, international investors can

now seamlessly access the securities and sukuk issued and deposited in RENTAS via Euroclear and its participants.

Efforts at the regional level to improve the post-trade processing infrastructure in Asia have also progressed under the Pan-Asian Central Securities Depository Alliance pilot platform which will link RENTAS with Euroclear. This will allow MyClear to provide custodian services for securities denominated in any currency. The Bank worked closely with central banks and central securities depositories in the region to implement the key development initiatives that has supported the successful implementation of the pilot platform in March 2012.

The RMB settlement facility in RENTAS will enhance the efficiency of RMB trade settlements for Malaysian corporates by reducing costs and ensuring finality of settlements

BROADENING REGIONAL COOPERATION IN PAYMENT INFRASTRUCTURE DEVELOPMENT

Towards realising the ASEAN Economic Community vision by 2015, broad work plans, guided by key milestones for the ASEAN Financial Integration Framework have been formulated and endorsed by the ASEAN Central Bank Governors. These include strategic recommendations proposed by the Working Committee on Payment and Settlement Systems to improve the efficiency of cross-border payment and settlement services in ASEAN. As a member of the Committee, the Bank led the study on cross-border trade settlement and contributed inputs to studies in other focus areas covering retail purchases, remittance, standardisation and capital market transactions. These studies, which were concluded in the early half of 2011, form the basis for several strategic recommendations made by the Committee to address the specific development priorities of the ASEAN countries. One of the key priorities is to enhance the efficiency and affordability of cross-border payments and

settlements in ASEAN, supported by the wider use of international standards for payments and a greater convergence in legal frameworks. In the near term, the Committee will focus on conducting a feasibility study on potential payment system linkages, such as expanding the regional retail payment network to achieve greater cross-border payment efficiency, capacity building and joint research on specific issues.

BUILDING AN INTEGRATED E-PAYMENT INFRASTRUCTURE

To effectively carry out its mandated role of driving the e-payment agenda, MyClear acquired IBG, FPX, e-Debit, the Direct Debit system and the MyMobile platform from MEPS in September 2011. The acquisition of these facilities by MyClear aims to rationalise overlapping e-payment infrastructures to reduce the cost of long-term investments, achieve higher levels of efficiency in e-payment services, and introduce a pricing structure that would encourage higher consumer adoption of e-payment services. With the acquisition, the Bank will be better positioned to drive cost reductions and efficiency improvements in the provision of e-payment services.

MOVING FORWARD

Given the importance of e-payments in enhancing economic efficiency, the Bank will continue to focus on positioning **e-payments as the preferred medium for economic transactions in Malaysia**, and on elevating the country's migration to e-payments to the next level.

The Financial Sector Blueprint focuses on positioning e-payments as the preferred medium for economic transactions in Malaysia

This is outlined in five recommendations that encompass 19 key initiatives in the Financial Sector Blueprint 2011-2020. The success of these initiatives will be measured by four key performance indicators (Table 4.3), and will bring Malaysia closer to the level of e-payment adoption that has been achieved by others that have successfully migrated to e-payments.

Table 4.3

Key Performance Indicators

Key Performance Indicators	Target by 2020	2010
E-payment transactions per capita	200 transactions per capita	44 transactions per capita
Debit card transactions per capita	30 transactions per capita	0.6 transaction per capita
Point-of-sale terminals per 1,000 inhabitants	25 terminals per 1,000 inhabitants	8 terminals per 1,000 inhabitants
Number of cheques cleared	100 million	207 million

Source: Bank Negara Malaysia

The realisation of these shared goals will require common focus and commitment from all stakeholders. Among the immediate priorities are to promote greater interoperability through

enhancements to the payment infrastructure, and to implement appropriate pricing reforms to strengthen incentives for the migration to more cost-effective payment modes.

