2010

PAYMENT AND SETTLEMENT SYSTEMS

The oversight of the payment and settlement systems by the Bank continued to focus on systemic risk reduction, promoting an efficient payment and settlement infrastructure to cater for both domestic as well as cross-border payments and improving efficiency in the provision of payment services. With a view to accelerate the adoption of electronic payments (e-payments), the Bank has intensified its efforts to achieve greater utilisation of electronic means of payments in targeted sectors including initiatives to provide wider and more convenient access to payment systems and payment services. The major payment systems in Malaysia remained resilient and operated without any material disruption throughout 2010, thus ensuring the timely settlement of both systemically important high-value transactions and retail transactions.

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DEVELOPMENTS IN PAYMENT AND SETTLEMENT SYSTEMS

RENTAS

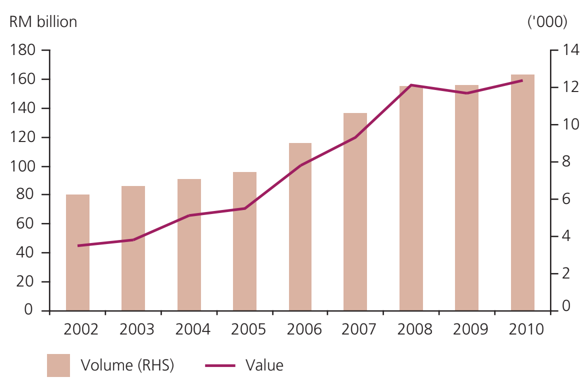
The Real-time Electronic Transfer of Funds and Securities System (RENTAS) which provides real-time gross settlement (RTGS) of transfers between members for high-value payments as well as Delivery versus Payment (DvP) securities settlement is now operated by the Bank's wholly-owned payment subsidiary, Malaysian Electronic Clearing Corporation Sdn. Bhd. (MyClear). RENTAS continued to register increases in the daily average value of transactions settled in 2010, mainly involving foreign exchange settlements, reflecting the pick up in business and financial transactions as confidence in the global economy improved. The value of foreign exchange transactions settled through the Payment versus Payment (PvP) link between RENTAS and the USD Clearing House Automated Transfer System (USD CHATS) in Hong Kong SAR registered a significant increase of 41.3%. The total value of transactions settled through RENTAS represents 51.5 times Malaysia's gross domestic product (GDP) while the daily average turnover of RENTAS recorded an average annual growth of 18.9% in the past five years.

Modernising RENTAS

Apart from facilitating the effective execution of monetary policy, RENTAS plays a pivotal role in enhancing the efficiency of the financial system and the economy as a whole. The convenience and speed of executing and receiving payment transactions through RENTAS has a direct bearing on the operational efficiency of the financial institutions, corporates and businesses. In the light of the significant payment flows passing through the system and as Malaysia's financial sector expands and integrates with regional and global markets, the efficient functioning of RENTAS and its ability to cater for cross-border payments were given greater focus by the Bank during the year.

Chart 4.1

RENTAS : Daily Average by Value and Volume



Source: Bank Negara Malaysia

In April 2010, the Bank announced its participation in the pilot implementation of a common platform for the Asian post-trade processing infrastructure. This is a collaborative initiative among several central banks and central securities depositories in the region together with Euroclear, an International Central Securities Depository (ICSD), under the Pan-Asian Central Securities Depository Alliance (the Alliance). The Alliance is a regional task force formed to facilitate the development of the Asian bond market by promoting efficient and cost-effective post-trade settlement and processes for the Asian capital market. The initiative will link RENTAS with Euroclear thus allowing MyClear to provide custodian services for securities denominated in any currency. In addition, the link would provide seamless accessibility to securities and sukuk issued and deposited in Malaysia by international investors. The pilot which is planned for implementation in the second half of 2011 will further strengthen Malaysia's position as the world's largest securities depository for sukuk instruments. To complement this, RENTAS would be enhanced to allow multi-currency settlements.

Developments are also underway to enhance RENTAS to adopt the international messaging standard i.e. the Society for Worldwide Interbank Financial Telecommunication (SWIFT) standard. The adoption of the SWIFT messaging standard will allow Malaysian banks and corporates to streamline their domestic and international treasury operations to improve operational efficiency and lower payment infrastructure cost.

In the light of the significant payment flows passing through the system and as Malaysia's financial sector expands and integrates with regional and global markets, the efficient functioning of RENTAS and its ability to cater for cross-border payments were given greater focus by the Bank during the year

Given the complexity of the initiative, the implementation of the SWIFT messaging standard will be carried out on a staggered basis to minimise operational risks and is targeted for completion in 2014.

Table 4.1

Major Retail Payment Systems in Malaysia

System	Description	Operator
National Electronic Cheque Information Clearing System (eSPICK)	An image-based cheque clearing system where the cheque image and magnetic ink character recognition (MICR) code line data are captured and transmitted electronically to facilitate clearing.	MyClear
Interbank GIRO (IBG)	An interbank funds transfer system that facilitates payments of up to RM500,000 per transaction.	Malaysian Electronic Payment System Sdn. Bhd. (MEPS)
Shared ATM Network (SAN)	A network switch which enables bank customers to access their funds from any of the participating banks' automated teller machines (ATMs). There are currently two networks i.e. MEPS SAN and HOUSe. MEPS is owned by all domestic commercial banks, two Islamic banks and one development financial institution, while HOUSe is owned by four locally incorporated foreign banks.	MEPS and HOUSe
e-Debit	A switching network which enables participating banks' ATM cards to be used to pay for purchases at point-of-sale (POS) terminals at all participating retail outlets.	MEPS
Financial Process Exchange (FPX)	An Internet-based multi-bank payment platform that leverages on the Internet banking services of banking institutions to offer online payment for electronic commerce (e-commerce) transactions.	MEPS
MEPS Direct Debit	An interbank collection service for regular and recurring payments enabling automated collection directly from a customer's bank account at multiple banks with a single authorisation.	MEPS

Source: Bank Negara Malaysia

Retail payment systems

The retail payment systems include systems that process smaller-value payments such as cheques, electronic funds transfer, that is, the debit and credit transfers and Electronic Funds Transfer at Point of Sale (EFTPOS) transactions (see table 4.1 for a summary of the retail payment systems operating in Malaysia). While cash continues to be an important payment method, non-cash payments made via the various retail payment systems have increased significantly. This reflects a positive shift in consumer preferences towards payment methods which are largely driven by considerations of convenience, speed with which payments are processed, the reliability and security of the payment method and the fees charged by the financial institutions in providing the payment services.

Trends in retail payments

On average, 44 e-payment transactions per capita were made in 2010 compared to 29 in 2006. The increase is mainly attributable to the usage of credit cards, electronic money (e-money) and Internet banking while the usage of ATM (excluding cash withdrawals), debit cards and IBG are increasingly gaining wider acceptance.

Cash and cheques

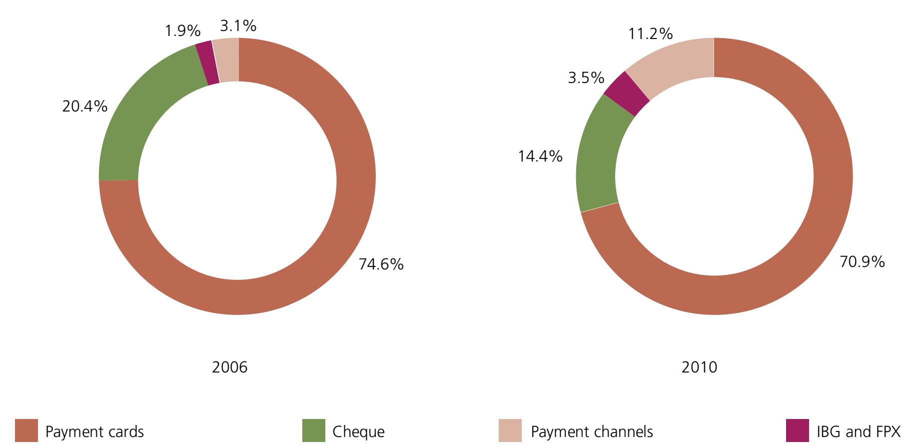
The ratio of cash in circulation (CIC)-to-GDP declined slightly to 6.2% in 2010 from 6.4% in 2009. However, cash remains a significant payment method particularly for small-value payments. The average value of cash withdrawals at the ATM was higher, increasing from RM470 in 2009 to RM492 in 2010, while the total value of cash withdrawals rose by 8.1%, faster than the 7% growth in consumption spending. The increasing importance of Internet banking and the ATM have to some extent displaced the use of cheques. Its share of total non-cash retail payments has declined both in terms of volume and value. Corporates issued 40.3% of the total volume of cheques, followed by individuals at 20.2% and sole proprietors at 17.4%. Nearly 90% of the cheques are for payments of RM10,000 and below. Although cheques remain a convenient and flexible means of payment, moves to progressively reduce the inefficiencies that exist in the payment systems are likely to result in upward adjustments in the pricing of cheques to reflect the high costs of processing cheques currently borne by financial institutions.

Payment cards and e-money

The higher adoption of Internet banking and the ATM has also contributed to some displacement in the use of payment cards. Its share of total volume of non-cash retail payments declined from 74.6% in 2006 to 70.8% in 2010. In the payment cards market, e-money continues to dominate, accounting for 68.7% of the total number of payment card transactions in 2010. The bulk of the e-money transactions valued at RM2.7 billion in 2010 was attributable to payments in the transportation sector using the Touch ‘n Go card. Credit card transactions continued to grow despite a 21% reduction in the number of credit cards in circulation in 2010,

Chart 4.2

Share of Non-Cash Retail Payments By Volume



Source: Bank Negara Malaysia

mainly due to the imposition of the Government service tax since 1 January 2010. Whilst the number and value of debit card purchases remained much lower than credit card, debit card usage has increased more than four-fold from 2006 to 2010, reflecting consumers' increased preference for the `pay now´ method. The awareness and promotional activities rolled out by debit card issuers, such as reward programmes, cash rebates and discounts, had also contributed to the higher usage.

Electronic channels and other electronic funds transfer systems

Internet banking continued to register strong growth in the past year, accounting for 8.4% of the total number of non-cash retail payments in 2010 compared to 2.9% in 2006. Internet banking transactions grew by 34.8% with transaction value amounting to RM1 trillion in 2010 as compared to RM699.9 billion in 2009. The growth is mainly attributed to the increase in salary payments and funds transfer performed by corporates and the increase in the number of Internet subscribers from 8.1 million as at end-2009 to 9.8 million subscribers as at end-2010.

The ATM has come a long way since its introduction in the 1980s. From facilitating cash withdrawals and balance enquiry, its functionalities have since been expanded to provide a suite of payment services that have made it an increasingly popular payment channel in the country. Both the volume and value of non-cash transactions conducted via ATMs have risen to 38.8 million and RM31.3 billion respectively, compared to only 1.8 million and RM2.1 billion in 2006. In response to the high acceptance of the ATM as a convenient e-payment access point, the domestic SAN of MEPS has been enhanced to facilitate interbank credit card and loan repayments as well as bill payments for utilities since 2009. Such facilities are currently available at more than 2,000 ATMs of participating banks nationwide.

Mobile banking and payment transactions remained low. The number of mobile banking subscribers in 2010 registered an increase of 35% but mobile banking transactions declined both in volume and value. Mobile banking is mainly used for mobile prepaid top-ups and funds transfers, while corporates use the service to make payments to suppliers. In 2010, 4.9 million mobile payment transactions valued at RM529.6 million were recorded. This represents a decline in transaction volume by 35.6%, but a four-fold increase in transaction value, contributed mainly by the high number of mobile remittance transactions which accounted for 70% of the total transaction value. To drive the development of mobile banking and payments in the country, an industry initiative to build a mobile banking and payment ecosystem was launched in April 2010.

Mobile payment transactions riding on the Near Field Communication (NFC) technology was introduced for commercial use last year. However, it is still at an infancy stage and its adoption is very much dependent on the availability of contactless infrastructure at the merchants and number of NFC-enabled mobile devices in the market.

Improving the efficiency of retail payments

In pursuit of the Bank's mandate to promote the efficiency of the payment system of the country, the Bank continued to work extensively with the banking industry, and other relevant stakeholders to enhance the payment infrastructure to offer faster payment services and easier and more convenient access to payment services. Apart from assisting important stakeholders to overcome the obstacles faced in their transition from paper-based payments to e-payments, the Bank also worked with MEPS and the financial institutions to improve the efficiency of payments via the IBG and FPX systems and introduce new payment offerings that would offer greater customer access, lower cost of access and improved user payment convenience. These efforts to advance the e-payments agenda at the national level are important to boost productivity and contribute towards raising Malaysia's competitiveness.

IBG and FPX systems

To promote the greater use of the IBG and FPX systems as an alternative to cheques, the IBG system has been enhanced to accept payments with value of up to RM500,000, with effect from 22 November 2010. This took into account the current profile of cheques which showed that more than half of the total value of cheques issued annually are for values above RM100,000. However, banks may impose a lower limit for IBG transfers made via online channels such as Internet banking to mitigate risks associated with these channels. Recognising that funds availability is also an important consideration in the choice of payment method, the IBG system has also been enhanced to provide faster funds availability. Users can now enjoy same-day funds availability if the transaction is effected before 10 a.m. In addition, the days taken to notify IBG users of unsuccessful transactions have been reduced. Work is also in progress on improving the processes relating to the FPX system to allow banks to offer improved customer services. This includes the development of a centralised web-based direct debit authorisation document management system to automate the processes undertaken by banks to verify and authorise direct debit applications from their customers.

Establishment of a national mobile ecosystem platform

Malaysia's highly-banked population and the availability of 32 million mobile phone subscriptions present immense opportunities and benefits for the financial institutions and other mobile service providers to leverage on the mobile phone to offer new products and services and reach a wider customer segment in a more cost-effective manner. A significant step forward for mobile banking and payments in Malaysia was taken with the formation of a working group in early 2010 chaired by the Bank which included representation from key stakeholders namely the Ministry of Finance (MOF), Malaysia Administrative Modernisation and Management Planning Unit (MAMPU), Malaysian Communications and Multimedia Commission (MCMC), MEPS, mobile network operators and banks to create an ecosystem that offers compelling user and merchant experience and cost efficiency to the industry.

The working group has agreed on a shared integrated platform to be operated and maintained by MEPS based on a standard mobile banking application and common security standard which will be piloted in the first half of 2011. The platform would enable merchants and service providers to tap on the multi-bank and mobile network neutral infrastructure to market their products and services to a wide customer segment. Meanwhile, consumers will be able to undertake a whole range of payment transactions to the Government, utility service providers and others, anytime and anywhere using their mobile phones. This represents a fundamental transformation from the current proprietary arrangements where a bank customer has less flexibility in selecting the mobile operator of his choice.

A significant step forward for mobile banking and payment in Malaysia was taken with the formation of a working group in early 2010 to create an ecosystem that offers compelling user and merchant experience and cost efficiency to the industry

The ecosystem will provide banks with the option of maintaining their existing mobile banking and payments infrastructure and complementing it with the new mobile ecosystem platform that offers wider network access, or alternatively migrating to the new and open mobile ecosystem platform. Banks which have yet to offer mobile banking and payment services can also benefit from the opportunity to launch services to their customers at a lower investment cost and faster time to market. However, the benefits of a common mobile banking and payment ecosystem can only be realised if it receives widespread support from banks, telecommunication companies, Government agencies and other service providers to achieve the critical mass of users. A key priority going forward is therefore to develop a coherent strategy to create awareness particularly among merchants and users of payment services about the opportunities and benefits provided by the ecosystem. All stakeholders have a critical role to play and common interest in making the initiative a success given the considerable social benefits that it would generate.

OVERSIGHT OF THE PAYMENT AND SETTLEMENT SYSTEMS

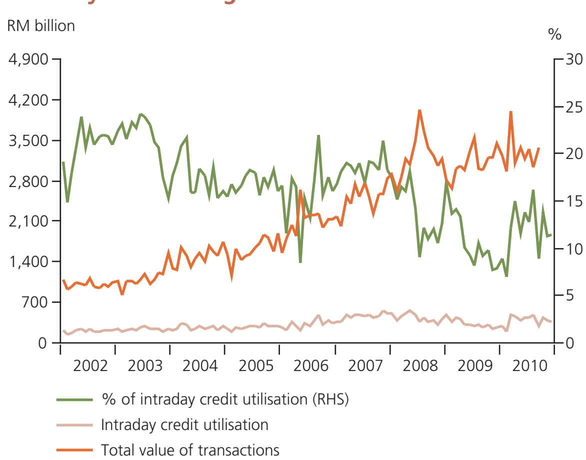
The RENTAS and eSPICK systems are designated payment systems under the Payment Systems Act 2003, reflecting their extensive use and criticality to financial stability and the smooth functioning of the economy. Oversight activities undertaken by the Bank were accordingly focused on MyClear, the operator of the two systems, and its observance of the supervisory expectations issued by the Bank. In assessing the performance and resilience of the designated payment systems, the Bank is guided by international standards for payment systems, specifically the Core Principles for Systemically Important Payment Systems (CPSIPS) and the Recommendations for Securities Settlement Systems, issued by the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organisation of Securities Commissions (CPSS-IOSCO). Compliance with these standards are reflected in the supervisory expectations issued by the Bank. In line with the Bank's supervisory expectations, MyClear further strengthened its operational arrangements and risk management practices during the year to ensure that the RENTAS and eSPICK systems remain robust. This included reviewing its participation and operation rules and business continuity arrangements to ensure comprehensiveness, relevance and transparency to provide participants of the systems with a clear understanding on the risks involved. No major outage or disruptions were encountered by RENTAS and eSPICK, and the systems operated smoothly achieving 99.9% availability throughout the year.

Liquidity risk

While gross settlement in RENTAS eliminates the credit and settlement risks inherent in a deferred net settlement system, the trade-off is higher liquidity requirements and cost to the participants of RENTAS. A participant's failure to manage intraday liquidity effectively could result in its inability to meet its payment obligations within the expected timeline, thereby affecting its own liquidity position and that of other participants. The recent global financial crisis in 2008 had shown how quickly interbank liquidity can dry up, underscoring the paramount importance of effective liquidity risk management, both at the system level as well as by the individual participants, in view of the systemic repercussions of a liquidity shortfall at a single institution.

Chart 4.3

Intraday Credit Usage



Source: Bank Negara Malaysia

Reflecting the ample liquidity in the market, payment and settlement patterns remained stable during the year

To effectively minimise potential gridlock due to intraday liquidity constraints, the Bank provides a collateralised, interest-free intraday credit facility to eligible participants to ensure that the system has enough liquidity throughout the day. Despite the increase in RENTAS transactions in 2010, the demand for intraday liquidity was minimal as there was ample liquidity in the market. Notwithstanding the intraday credit facility made available by the Bank, each participant is expected to actively manage its intraday liquidity positions to meet payment and settlement obligations on a timely basis.

In the wake of the global financial crisis, additional guidance on managing intraday liquidity is being established under the Bank's liquidity framework for banking institutions, consistent with the Principles for Sound Liquidity Risk Management and Supervision issued by the Basel Committee on Banking Supervision in September 2008.

Reflecting the ample liquidity in the market, payment and settlement patterns remained stable during the year. On average, RENTAS participants settled 50% of the value of payments before 12 p.m. and 70% before 3 p.m., which is in line with international best practices. The Bank's and MyClear's monitoring of the behaviour of RENTAS participants also did not reveal any liquidity stress in the system.

Operational risk and business continuity

Ensuring business continuity and the uninterrupted availability of the RENTAS and eSPICK systems continued to receive high priority by MyClear. Monthly disaster recovery live runs as well as regular extended live runs conducted in 2010 affirmed the operational capability and reliability of contingent arrangements to sustain operations for a prolonged period, without major issues. MyClear also undertook measures to ensure operational reliability and readiness of the participants' business continuity arrangements. In July 2010, MyClear successfully coordinated an industry-wide Disaster Recovery live run in which all RENTAS and eSPICK participants were required to operate from their Disaster Recovery Centres (DRCs) and connect to the RENTAS and eSPICK host systems at the Bank's DRC. MyClear also provides a second level back-up facility which can be used by the participants in the event that both RENTAS members' production and DRC sites are down. In 2010, the facility was activated twice to facilitate payments and settlements of affected participants due to system and power failures.

Public confidence in retail payments

The Bank's role in promoting safe and reliable payments in the retail payments space has become more challenging in view of the changing retail payments landscape and rapid technological advancements. The Bank adopts a balanced regulatory approach that promotes payment systems efficiency, innovation and competition whilst ensuring the safety of the payment systems. This is achieved in close collaboration with industry players and relevant authorities to address emerging risks in retail payments with the ultimate objective of maintaining public confidence in the use of retail payment systems.

During the year, the Bank's oversight activities in the retail payments space were focused on the retail payment systems operated by MEPS and Touch 'n Go Sdn. Bhd. (TnG). MEPS' systems namely the SAN, domestic personal identification number (PIN)-based ATM card or e-Debit, IBG, FPX and Direct Debit processed approximately 251.2 million transactions amounting to RM193.8 billion in 2010. TnG processed over 684.6 million transactions amounting to RM2 billion, which accounted for 97.9% and 74.5% of total e-money transactions in terms of volume and value respectively. Both these significant systems did not experience major disruptions during the year. As part of its oversight, the Bank nevertheless followed through on requirements for both MEPS and TnG to further strengthen measures to ensure the reliability and uninterrupted availability of their payment systems in line with international practices. This saw MEPS implement several system improvements to enhance the quality of its service to customers and to strengthen its payment infrastructure. The completion of the FPX and Direct Debit system disaster recovery (DR) setup also significantly reduced the Recovery Time Objective (RTO) from five days to only four hours, thus achieving a higher level of business continuity for the two systems, which is now in line with the IBG and SAN systems. In addition, to minimise operational risk in its services, MEPS successfully conducted two disaster recovery exercises for its core systems. TnG, the sole e-money issuer and electronic payment system provider in the transit sector and tollways is similarly undertaking several measures to further enhance its system robustness to improve its operational reliability and efficiency.

The Bank's oversight and surveillance activities were also centred on payment instruments such as e-money and payment cards as well as payment channels to maintain public confidence and to address fraud in the retail payment systems. As at end-2010, there were 20 approved non-bank e-money issuers compared to only six in 2005. The use of e-money is predominantly in the transportation sector and for online purchases of goods and services.

The growing popularity of online payments coupled with the advancement in mobile technologies has motivated payment service providers to introduce innovative online payment services in the Malaysian payment landscape. Such payment services, offered by mobile and Internet based e-money issuers, not only provide users with the convenience of being able to conduct real-time and cross-border transactions, but has also facilitated virtual commerce activities via various social networking platforms. Although still in its infancy, the use of e-money to pay for virtual goods and services over the social media, is growing rapidly. Social networking sites today offer various virtual applications including an online marketplace which sells virtual contents, as well as online gaming. With the increasing use of e-money in the virtual space, the need for adequate safeguards against vulnerabilities to criminal activities such as money laundering and terrorist financing have correspondingly increased. Given that virtual activities are being operated without geographical boundaries and may be unregulated, particular focus needs to be directed towards safeguarding consumers' interest in using the payment services. In response to these developments as well as the emerging trends and risks, the Bank is currently reviewing the e-money regulatory framework. The level of innovation in payment services offered by the non-bank players requires a differentiated regulatory approach by the Bank which appropriately reflects the business dynamics and operational arrangements of the players.

Collaborative efforts by the Bank together with industry players and stakeholders were intensified to avert emerging fraudulent acts

Managing fraud risk

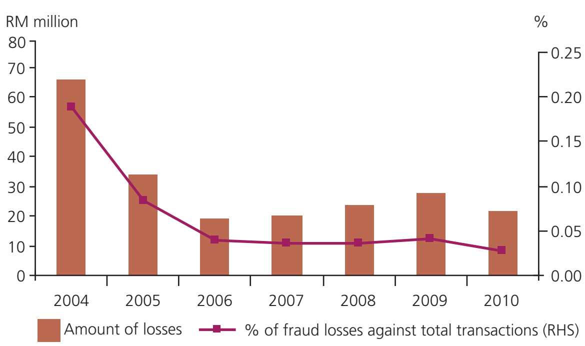
Following the industry wide Europay-Mastercard-Visa (EMV) chip migration in 2005, Malaysia had significantly reduced the incidents and losses from the usage of counterfeited cards in the country from 97,285 cases valued at RM63 million in 2004 to 2,286 cases valued at RM2.3 million in 2010 respectively. While the success of the EMV migration has achieved a significant reduction in counterfeit card fraud domestically, cross-border counterfeit fraud remains a concern. This is mainly attributed to the inconsistent deployment of EMV globally, resulting in the continued incidences of the usage of counterfeit Malaysian cards in countries that are still riding on the less secure magnetic stripe technology. The different pace in timing and progress of each country in migrating to the EMV standard has somewhat constrained efforts taken to reduce overall fraud due to counterfeit cards, in particular for cross-border transactions. At the same time, the tremendous decline in counterfeit cards has shifted the fraud trend to other forms of payment card fraud, mainly associated with lost and stolen cards as well as card-not-present (CNP) transactions that do not require the presence of physical cards, e.g. for purchases made over the Internet or mail and telephone orders.

Recognising this development, collaborative efforts by the Bank together with industry players and stakeholders were intensified to avert such emerging fraudulent acts. This has contributed to the decline in total fraud losses for credit card in 2010, mainly associated with the effective reduction of CNP fraud cases. The efforts by the card industry to reduce the level of fraud have been intensified, including industry-wide merchant education programmes which have helped to create greater awareness of fraud activities and support for the effective implementation of pre-emptive measures (including more proactive monitoring and mitigating measures) to combat fraud. In October 2010, a nationwide education campaign by the National Cards Group (NCG) and the Association of Banks in Malaysia (ABM) was also launched to educate cardholders and inculcate responsible credit card usage among consumers.

Measures were also undertaken by the Bank to strengthen the regulatory requirements for the credit card industry following the growing importance of credit cards as a payment

Chart 4.4

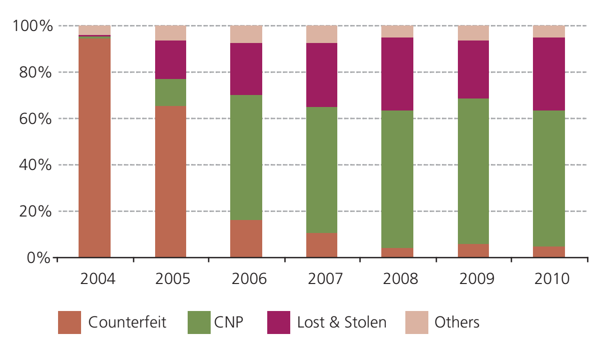
Credit Card Fraud



Source: Bank Negara Malaysia

Chart 4.5

Credit Card Fraud Modus Operandi



Source: Bank Negara Malaysia

instrument. In this regard, the Bank completed a review of the Credit Card Guidelines, with the aim of further enhancing the security features of the credit card infrastructure, strengthening the protection of consumers and introducing specific risk management requirements to mitigate emerging fraud risk.

While transactions conducted through Internet banking has increased significantly, Internet banking fraud cases and losses remain negligible. Phishing continued to be the main threat to the Internet banking industry, accounting for 98% of Internet banking fraud cases reported. Phishing involves the sending of fake e-mail or short message service (SMS) to lure victims to divulge their PIN and passwords. The industry continued to undertake measures to increase consumer awareness on fraud tactics and the importance of keeping customer information confidential via the mass media and the banking institutions' websites. Members of the public are advised to protect their personal credentials and not fall prey to SMS scams and phishing e-mail requesting the public to update their profile for the purpose of account activation. To further strengthen the regulatory requirements for the safe conduct of electronic banking (e-banking) services by financial institutions, the Bank issued the Guidelines on the Provision of Electronic Banking Services by Financial Institutions in March 2010 setting out the minimum operational requirements for e-banking services. The Guidelines outline the broad principles that should be adopted by financial institutions when offering e-banking services and stipulate the minimum requirements that should be observed for e-banking services in accordance with their associated risk levels.

SECTORAL MIGRATION TO ELECTRONIC PAYMENTS

The Government continued to play a crucial role in supporting the national agenda of migrating to e-payments on a national scale. Having migrated 97% of Government payments to electronic payment modes, measures are being actively pursued to migrate the remaining payments to the electronic channel by 2011. At the same time, the Government has embarked on initiatives to increase the use of e-payments for collections, including collections for 281 online services offered by 116 Government agencies. E-payments made to the Government agencies through the FPX system have increased from 113,833 transactions amounting to RM41.3 million in 2009 to 187,958 transactions valued at RM70.9 million in 2010. Payments through payment cards totalled 1.7 million transactions amounting to RM907.9 million in 2010 as compared to 1.9 million transactions worth RM787 million in 2009. A new platform, *myGovXchange*, was launched in July 2010 with the aim of providing a single convenient access point for Malaysian citizens and business communities to make electronic submissions and payments to the Government agencies.

> Building on the success of the electronic share payment and electronic dividend initiatives, plans are in the pipeline to expand the adoption of e-payments to other areas in the capital market

A consultative group comprising the financial institutions, ABM, MEPS and the Association of Islamic Banking Institutions Malaysia was also formed in August 2010 to pursue opportunities and ways to promote the greater adoption of e-payments. The quick wins identified by the group to be implemented by participating institutions include ceasing the issuance of cheques for payments among them and encouraging customers to make credit card and loan repayments via electronic channels. The Bank is also working with the insurance industry to migrate the large number of cheques issued annually for insurance premium and claims/benefit payments. This will be complemented by more concerted efforts to raise consumer and merchant awareness of e-payment options and create the `e-payment habit and experience´.

To enhance the penetration of e-payments in the capital market, the electronic share payment (ESP) and electronic dividend (e-Dividend) initiatives were launched during the year, allowing investors to enjoy same-day crediting of share sales proceeds and dividend income. Investors can also initiate payments to their stockbrokers via electronic channels for share purchases or they opt for more convenient auto-debit facilities by authorising their banker to debit their designated bank account directly. These services are offered free of charge and eliminate the need for investors to deposit and collect cheques. The successful launch of these initiatives were the result of collaborative efforts by the Bank, Securities Commission Malaysia, Bursa Malaysia, MEPS, banking institutions and stockbroking firms. Responses to both the ESP and e-Dividend initiatives have been very encouraging. To date, more than one-third of the Central Securities Depository (CSD) shareholders have signed up for e-Dividend since registration opened in April 2010. This represents an important development with prospects for a total of RM20 billion to RM25 billion in dividend payments to be made via e-Dividend instead of cheques annually.

Building on the success of these initiatives, plans are in the pipeline to expand the adoption of e-payments to other areas in the capital market such as sale and purchase of unit trusts, subscription of rights issues and refund of unsuccessful Initial Public Offering (IPO) applications made via the electronic subscription service.

Promoting electronic commerce

Increasing the uptake of e-commerce has been identified as another key strategy to spur the adoption of e-payments. To build user trust and confidence to transact online with the electronic businesses (e-businesses), the Bank proposed the idea of a national trust mark scheme for Malaysia to accredit e-businesses reliability. The scheme has been approved by the Government in November 2010 and is expected to be operational in 2011. Under the scheme, online businesses which have obtained certification from the appointed trust mark scheme operator may display the trust mark logo on their website which signifies fulfillment with the stringent code of practices set. The trust mark logo would assist consumers in identifying online businesses that have been accredited to exercise fair business practices, thus boosting consumers' confidence in online shopping.

REGIONAL PAYMENT SYSTEM INTEGRATION

Efforts to integrate payment systems in the region to offer convenience to consumers and to increase the efficiency of cross-border payments began in 2003 when the four central banks from Indonesia, Malaysia, Singapore and Thailand came together to assess the business and technical viability of establishing cross-border retail payment linkages. In 2005, the four central banks supported plans by the network switch operators in the four countries to link their shared ATM networks under the Asian Payment Network (APN) initiative.

The Bank, together with several central banks in the region, formed a Working Committee on Payment and Settlement Systems in April 2010 to enhance regional cooperation and harmonisation in the area of payments in support of the ASEAN countries' vision of achieving an ASEAN Economic Community by 2015

A common guiding framework was formulated by the four central banks with the network switch operators to establish a common set of standards on cross-border payments, and to clarify the central banks' rules and regulations on cross-border transfers. The APN membership has since expanded from the original four countries to include the Philippines, South Korea and Vietnam. The MEPS SAN is now connected with ATM networks in Indonesia, Thailand, Singapore and South Korea, thus offering ATM cardholders of the Malaysian participating banks the ability to perform cash withdrawals at 14,330 ATMs in Indonesia, 470 ATMs in Singapore, 139 ATMs in South Korea and 12,146 ATMs in Thailand. MEPS' tie-up with China UnionPay (CUP) since September 2007 also enables CUP cardholders from the People's Republic of China to perform cash withdrawals in Malaysia. Plans are currently underway to link the MEPS SAN with those in the Philippines, Vietnam and Bangladesh.

While the initial phase of the APN initiative was to offer ATM cardholders the convenience of making cross-border cash withdrawals at the ATMs of participating banks in member countries, future plans include leveraging on the linked ATM networks to offer cross-border funds transfers and payments in the region. The offering of these services would be a positive step forward in reducing the use of cash in member countries and in improving payment efficiency in the ASEAN region.

The APN initiative is just one of the many regional payment collaboration initiatives on the cards. The Bank, together with several central banks in the region, formed a Working Committee on Payment and Settlement Systems in April 2010 to enhance regional cooperation and harmonisation in the area of payments in support of the ASEAN countries' vision of achieving an ASEAN Economic Community by 2015. The realisation of a single market and production base with the free flow of goods, services, investments and skilled labour, and a freer flow of capital, will critically depend on the availability of more effective cross-border payment mechanisms for trade settlement, retail purchases, remittances and capital market transactions. This in turn will need to be supported by lower costs and improved efficiency levels of the cross-border payment infrastructure in the region as intra-regional trade grows.